

**ROLE OF PERSONALITY DISORDERS IN
PREDICTION OF ACHENBACH SYSTEM OF
EMPIRICALLY BASED ASSESSMENT OF
PROBLEM BEHAVIORS AMONG ADULTS**



By

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2020*

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A dissertation submitted to the

*Dr. Muhammad Ajmal
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In partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

IN

PSYCHOLOGY

2020

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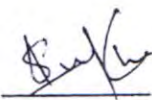
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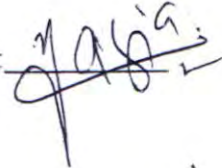
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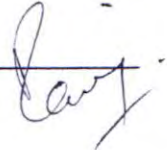
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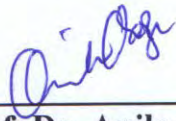
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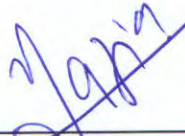


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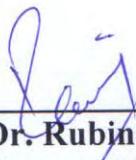
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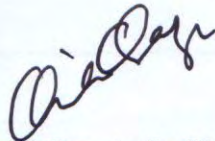
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LIST OF ABBREVIATIONS

ABCL	Adult Behavior Checklist
ADP IV	Assessment of DSM IV Personality Disorders Questionnaire
APA	American Psychiatric Association
ASEBA	Achenbach System of Empirically Based Assessment
ASPD	Anti-Social Personality Disorder
ASR	Adult Self Report
AVP	Avoidant Personality Disorder
BFI	Big Five Inventory
BHU	Basic Health Units
BPD	Borderline Personality Disorder
CD	Conduct Disorder
CFA	Confirmatory Factor Analysis
CLPS	Collaborative Longitudinal Study of Personality Disorder
DAPP	Dimensional Assessment of Personality Pathology
DPD	Dependent Personality Disorder
DSM_V	Diagnostic and Statistical Manual 5 th Ed.
DSM_III R	Diagnostic and Statistical Manual 3 rd Ed. Revised
DSM	Diagnostic and Statistical Manual
DSM IV	Diagnostic and Statistical Manual 4 th Ed.
DSM IV-TR	Diagnostic and Statistical Manual 4 th Ed.
ECA	Epidemiological Catchment Area
EBP	Emotional Behavioral Problem
FFM	Five Factor Model
GAD	Generalized Anxiety Disorder
GP	General Practitioner
IPDE	International Personality Disorder Examination
ICD_10	International Classification of Diseases 10 th Ed.
MHA	Mental Health Act
NESAC	National Epidemiological Survey on Alcohol and Related Conditions

NHS	National Health Service
NOS-DE	Not Otherwise Specified Depressive
NOS-PA	Not Otherwise Specified Passive Aggressive
NGO's	Non-Government Organizations
OCPD	Obsessive Compulsive Personality Disorder
PDS	Personality Disorder
PD-NOS	Personality Disorder Not Otherwise Specified
PTSD	Post-Traumatic Stress Disorder
RDOC	Research Domain Criteria
SNAP	Schedule for Non-Adaptive Personality
UK	United Kingdom
USA	United States of America
WHO	World Health Organization
WHO-AIMS	World Health Organization- Assessment Instrument for Mental Health Systems

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ACKNOWLEDGEMENTS

This thesis would not have been completed without the trust I have in *ALLAH* and his plans so I would like to pay my utmost gratitude to the Almighty for His blessings and plans.

I have always believed that writing a dissertation is tough and challenging. But after trying to complete it and writing this section of acknowledgement is even more challenging. It's forcing me to go through the journey and revisit all I went through while doing this. I still remember the day when I went to my supervisor, Prof. Dr. Anila Kamal and shared with her that I am afraid of working in clinical settings as I feel that data collection would be tough. I was expecting that she will react, but to my surprise she remained very composed and calm. I still remember her telling me that you will learn a lot and your work will have practical implications. I would like to thank you for giving me this opportunity to work under your supervision. If you would not have convinced me on that day, I would have given up very easily. The way you have supported me during this whole time and helped me complete my work is something I will always be grateful for. Your guidance is unprecedented, and I will cherish the number of times you pushed me to go beyond my comfort zone and explore the data and do the changes in my draft. It would not have been possible without your constant guidance and constructive feedback.

Though this journey has been tough but what kept me going was my belief that what I am doing now is the toughest and things will get easier with time. But today when I look back, every step was equally challenging and time consuming. As per my understanding, the toughest part was to convince people to translate my research instruments (which were lengthy). As soon as I finished translations, I felt a sense of relief. But to open my eyes the next phase of pushing the committee members to finalize my tools was yet another big challenge. I still remember the first day where in an hour we were only able to finalize fifteen items. I would like to extend my gratitude to all committee members especially Dr. Humaira Jami and Dr. Sobia Masood for providing me valuable time and feedback. I would also like to thank Ms. Ramani Sunderji for reviewing translations and providing me quick feedback so that I can proceed towards data collection. I would also like to extend my gratitude to Prof. Dr. Thomas Achenbach

for reviewing my initial research proposal and agreeing for the collaboration which helped me to develop an understanding of ASEBA.

Data collection for me was the time to face my fear. I took a team along for data collection and visited many hospitals within Islamabad and Rawalpindi. The response from hospital was nothing I had expected and I went through a lengthy process to approach the hospital authorities for following the ethical protocols and permission. I hope this process would be much smoother and quick for future researchers. Nonetheless, I would like to thank all the hospital authorities and patients who took part in my study. To my surprise people were willing to talk about their problems and this is what motivated me to work hard for data collection. I would like to thank my team members Ms. Sadaf Arif, Ms., Errum Rafique, and Ms. Tehreem for helping me out during this phase. I still remember the time where we used to be at the hospital by 7 am. We used to anxiously wait for the patients to come in so that we can start the process. We considered four forms a day as our most fruitful and constructive day. Though interacting with patients and listening to their perception of illness was unique but working in the hospital set up and seeing different patients going through tough phases was very challenging and disturbing for all of us. There were so many days, where while coming back home we were not able to talk to each other. But our debriefing sessions in the evening helped us to join next day with same vigor and hope.

This lengthy phase of PhD has taught me few things but after all these years I reckon that the moment you start believing nothing worse can happen now is the moment of reality check. The moment of truth struck when you face something terrible than the previous one. For me, it happened at the time of data collection for non-clinical sample. This phase was tougher than collecting data from the clinical sample. As now I was more dependent on the friends and colleagues for their help in data collection. Although I was disappointed by the research culture and response form the people, but I am thankful to the people who participated and spent their valuable time to respond on a lengthy questionnaire. This piece of research dissertation would not have been accomplished without your genuine response and cooperation. However, on a lighter note for the people whom I considered my friends, I still long for that data which you promised.

I would like to thank my friends especially Ms. Rayna Sadia and Ms. Sadia Huda for helping me out from the very first day of my Ph.D. I would never have completed this without your support. Rayna, I will never forget the days that we have spent together while trying to develop an understanding of data. You have been my biggest support during the toughest days. I cannot even keep a count of sleepless nights and mugs of tea that we have shared while analyzing my data and finalizing the results. The fearful nights that we have spent before research progress monitoring while formatting the drafts were tough. A nightmare that I don't even want to look back.

I would like to extend my gratitude to my research group fellows for attending my research seminars and for providing me with valuable feedback. I would also like to express my sincere and humble thanks to my colleagues for guiding me on each step. I would especially like to mention the continuous and valuable support provided by Dr. Nelofar Kiran Rauf during all these years. Your words motivated and kept me on the ground during the foggy days and I would not be able to pay back except expressing my gratitude through these lines. Thank you for always keeping me motivated and preparing me beforehand for the next step. The way you have guided me is marvelous. I would also like to thank my students who kept on asking me about what my research. I would like to mention that it is through your questions that I found logic and improved my rationale over the period. Your queries framed my research questions and helped me figure out few things about my study.

Last but not the least, I would like to thank my family members. Thank you for backing me up and bearing my mood swings. Thank you for not complaining about my absence in family events which I missed because of my work. Thank you for being kind and patient. Before every seminar I used to tell my Ama to please pray for me. Your prayers have kept me going. I would like to thank my younger brother Muhammad Abdullah Khan for supporting me during the write up phase. Though your question about finishing my degree was the most irritating question. But yes, sharing all the challenges that I am facing gave me a sense of relief. Thank you for being an awesome listener and a cool brother.

Saira Khan

ABSTRACT

Literature suggests that personality pathology plays a crucial role in onset and maintenance of problem behaviors, yet they go undetected and are overshadowed by other mental health problems or diseases. Despite of this agreement, personality disorders are often not assessed properly at the time of initial assessment which leads to minimal adherence to treatment and poor treatment outcomes. Keeping this in mind, a prime objective of present study was to validate System of Empirically based assessment (that includes: Adult Self Report and Adult Behavior Checklist) and DSM IV Personality Disorder into Urdu language. The present study comprised of pilot study and the main study. Employing the technique of convenience and purposive sampling for the pilot study data was collected from clinical ($N = 50$, $M = 33.92$, $SD = 12.84$) and non-clinical adults ($N = 50$, $M = 33.60$, $SD = 12.33$) with age between 18-59 years. The objectives were to explore psychometric properties and preliminary trends of association between personality disorders and problem behaviors (assessed via Adult Self Report). The main study was carried out on clinical ($N = 408$, $M = 37.17$, $SD = 11.21$) and non-clinical ($N = 487$, $M = 33.81$, $SD = 11.74$) samples with age ranges between 18-59 years. Evidence of validity was furnished for both samples through Confirmatory Factor Analysis, Mono-trait Multimethod Matrix, and contrasted group validity. Psychometric properties of Adult Self Report (ASR; Achenbach & Rescorla, 2003), Adult Behavior Checklist (ABCL; Achenbach & Rescorla, 2003), and Assessment of DSM IV Personality Disorders Questionnaire (ADPIV; Hassan, 2012) were found satisfactory, therefore, further analysis including prevalence, predictive relationship, and group differences were established. Prevalence indicated higher problem behaviors across broad band scales (both internalizing and externalizing) in clinical as compared to non-clinical sample. Across ADP IV, borderline personality disorder was most prevalent among clinical sample whereas obsessive compulsive personality disorder was most prevalent across non-clinical sample. Across gender for both samples, non-significant differences were apparent across broad band scales of internalizing behavioral problems whereas higher number of males had externalizing behavioral problems. Across ADP IV for clinical sample, PDs were more prevalent among males except for borderline personality disorder, Not Otherwise Specified Depressive (NOS-DE) and Not Otherwise Specified Passive Aggressive personality disorder (NOS-PA) in comparison to females. For non-clinical samples these differences were non-significant. Across age, more individuals in late adulthood had both internalizing and externalizing behavioral problems for clinical sample. However, only externalizing behavioral problems were more prevalent in late adulthood for non-clinical sample. Predictive relationship through stepwise regression were examined to test the hypotheses across broadband and narrowband scales. Results indicated that for both samples from cluster A paranoid and schizotypal PDs predicted internalizing behavioral problems. However, for externalizing behavioral problems all three disorders (schizotypal, paranoid, and schizoid) emerged as significant predictors for clinical sample and only paranoid emerged as significant predictors for non-clinical sample. Similarly, from Cluster B for clinical sample both borderline and narcissistic PDs predicted internalizing behavioral problems and only borderline predicted it for non-clinical sample. Additionally, externalizing behavioral problems were predicted by antisocial and borderline for clinical sample whereas only anti-social predicted it for non-clinical sample. From Cluster C, only dependent personality disorder predicted internalizing behavioral problems for clinical sample whereas for non-clinical sample

both dependent and avoidant predicted it. Both obsessive compulsive and dependent predicted externalizing behavioral problems for clinical sample and only dependent predicted it for non-clinical sample. In case of not otherwise specified PD for clinical sample only not otherwise specified depressive predicted internalizing behavioral problem whereas for non-clinical sample both not otherwise specified depressive and not otherwise specified passive aggressive predicted it. Similarly, not otherwise specified passive aggressive predicted externalizing behavioral problems for clinical sample and for non-clinical sample not otherwise specified depressive predicted externalizing behavioral problems. From these findings, it was apparent that paranoid, borderline, and dependent personality disorders emerged as a common predictor for both internalizing and externalizing behavioral problems across both samples. Moderation analysis indicated that relationship between personality disorders and problem behaviors (broad and narrow band) was buffered by adaptive functioning and gender. In order to examine the group differences across demographic variables mean differences were computed. These differences across gender for clinical sample indicated that females scored higher on anxious depressed and somatic complaints whereas males scored higher on aggressive, rule breaking, and intrusive behavioral problems. Non-significant differences were apparent across withdrawn, thought, and attention problems for clinical sample whereas for non-clinical sample only significant mean difference was apparent across externalizing behavioral problem where males scored higher. Across gender for ADP IV for clinical sample, males scored higher on all PDs except for not otherwise specified dependent personality disorder where the difference was non-significant. For non-clinical sample females scored higher on paranoid, histrionic, avoidant, and dependent PDs. In case of both clinical and non-clinical sample individuals with a history of suicide scored higher on ADP IV and syndrome-based scales of ASR. The results of the study highlighted that both personality pathology and problem behaviors could be best understood by incorporating cultural perspective as the relationship pattern that emerged across both sample is in line with the existing literature but the findings regarding prevalence and the group differences can be attributed to the cultural context of Pakistan. To conclude personality pathology plays a significant role in other psychopathologies and factors like age, gender, education, and adaptive functioning play a crucial role in establishing a comprehensive picture of psychopathology. Recommendations can be provided to mental health practitioners and policy makers at government level for incorporating personality pathology in overall assessment in order to enhance the system of assessment in clinical settings.

Chapter I

INTRODUCTION

Personality Disorders (PDs) are prevalent in both clinical and community samples but are often remain unassessed as clinicians tend to devise treatment plans for the most pressing problems with which the patient comes in. Therefore, it is important to detect PDs early, as their presence lead to poor interpersonal relationships, premature death, suicide, and create vulnerability for other problem behaviors as well. Researchers attribute this under-diagnosis of PDs to the way they are conceptualized, operationalized, and assessed. Moreover, the current approach of relying on diagnostic categories (categorical models) rather than addressing the core components of PDs has resulted in clinical neglect. Empirical evidences indicate that an alternate to this categorical model can be rating of personality dysfunction on a dimension with one end representing normal personality and other representing personality pathology (Howard, 2017; Tyrer, Reed, & Crawford, 2015; Widiger, 2011). Though this issue prevails worldwide but is of central importance for developing countries like Pakistan, where health systems are already overburdened. Additionally, patients seeking treatment are diagnosed with labels of depression and anxiety but the underlying comorbidity is grossly ignored. Realizing the limitation of this practice of assessment researchers, worldwide, are inclined to shift towards empirically driven approaches but clinicians are reluctant to adopt it. Keeping this in view, the present study aims to provide an overall background of mental health system in Pakistan and examine the role of personality disorder in prediction of Achenbach System of Empirically based Assessment (ASEBA) of problem behaviors among clinical and non-clinical adults.

This Chapter will provide the background of the study, the importance of mental health status in Pakistan by providing the relevant literature and will conclude with brief aims and an overall view of this thesis.

Background of the Study

In Pakistan, psychiatric and psychological issues are still considered as a taboo among the masses. Consequently, seeking psychiatric help and psychological assistance is seen as stigma. People usually do not accept mental health problems as illness and even those who have an understanding perceive that it will have serious social and occupational

consequences in the longer run (Najam, Chachar, & Mian, 2019). Additionally, mental health cost billions to already struggling economy of Pakistan. For example, in 2006, the economic burden of mental health in Pakistan was 250,483 million rupee, USD 4264.27 million (Malik & Khan, 2016). Government health departments allocates less than 1 % of total health care expenditures to mental hospitals. Even these centers do not have a preventive care setup and mostly the facilities are outdated. Due to this, by the time patient approaches these hospitals, the critical time for accurate assessment and early intervention is already lost (Sohail, Syed, & Rehman, 2017). These facts indicate that mental health service system in Pakistan is not as well organized as compared to services provided in high-income countries (like National Health Services: NHS, UK). In Pakistan, it comprises of three key formal and informal sources. Formal sources include public sector hospitals and community based inpatient units mainly run by Non-Governmental Organizations (NGOs). Whereas, informal services include religious and faith healers (Karim, Saeed, Rana, Mubbashar, & Jenkins, 2004). One of the major drawback of inpatients units is lack of registration with a central body that leads to malpractices (Ali & Gul, 2018).

In addition to malpractice and low budget of hospitals for mental health services, there are roughly 130 registered medical schools from where 15,000 to 20, 000 students graduate each year (Karim et al., 2004). But due to lack of appropriate guidance and exposure graduating students are unlikely to opt for psychiatry. Consequently, a total of 203.07 mental health care professionals are available (per 100,000 population) at mental health services including both private and government hospitals. In outpatient facilities, community based psychiatric inpatient facilities and mental hospitals, only 141, 187 and 14, psychiatrists are available, respectively. Thus, to conclude, currently, very few mental health care professionals including psychiatrists (400), psychologists (478), social workers (3,145), and occupational therapists (22) are providing services (Begum et al., 2019). This is inclusive of those psychologists and social workers who have minimal 1 year of training in mental health.

Among these figures, 1 to 20 % psychiatrists and psychologists immigrate to other countries within the initial phase of their career because of burnout and poor managerial systems. Moreover, there is minimal collaboration between psychiatrists and psychologists in government set up (Najam et al., 2019). Furthermore, “mental gap” that indicates

discrepancy in number of people having mental disorders and number of people who can access the needed mental health services is high in Pakistan which further leads to lack of standardized ethical procedures for assessment and intervention.

To conclude, mental health system remained a challenging yet ignored area in Pakistan. Paired with all these factors, terrorism, low mental health literacy, unemployment, natural disasters like earthquakes and floods, socio-political environment, and low literacy have posed serious threat to mental health of people living in Pakistan (Kahlily, 2011). Though, Mental Health Act (MHA) was passed in 2011 to safeguard the right of patients seeking treatment for psychiatric illnesses but due to lack of political will and scarcity of resources, minimal improvement was apparent (Bashir, 2018).

Mental health research in Pakistan

A review conducted following the World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS, 2009), indicated that in five psychiatric hospitals 400 psychiatrists' practice in a country with 180 million people (World Health Organization; WHO, 2009). It can be inferred that limited number of psychiatrists and psychologists are hired which is evident from the fact that only one psychiatrist is available at Basic Health Unit (BHU) for more than ten thousand people (Choudhry et al., 2019; Begum et al., 2019). Additionally, paucity of literature exists regarding quality of services provided and mental health facilities available in Pakistan. Majority of individuals seeking treatment for mental health problems consult traditional faith healers because of low literacy and poor health facilities available (Bashir, 2018).

The quality of services that are being provided also need to be analyzed. Limited research has been conducted regarding type and quality of mental health services provided. Psychologists are mostly not hired and in instances where they are present minimal input is taken regarding assessment and designing of treatment plans (Anjum, Kamal, & Bilwani, 2019). Prescribing medicines is considered a sole way of dealing with mental health problems (Bashir, 2018). Findings indicate that Benzodiazepines (75.3 %) are commonly prescribed group of medicines for most mental health problems (Naqvi et al., 2012). Relatively few general practitioners are familiar (35.1%) with selective serotonin reuptake inhibitors (SSRIs). Practices of psychological assessment at the time of intake and use of

psychotherapy in intervention is also not followed in psychiatric units run by government (Anjum, Kamal, & Bilwani, 2019). Lack of time, training, motivation, patient overload, burnout and patient's financial constraints are leading reasons contributing to this practice (Begum et al., 2019).

Adding on to the prior discussed conditions, limited researches aiming to assess the quality of services provided in Pakistan indicate that General Practitioners (GPs) lack knowledge regarding internationally followed criteria for diagnosis that includes International Classification of Diseases (ICD-10) that includes criteria for even most prevailing disorders like major depression and anxiety disorders. Surveys conducted for assessment of knowledge and attitude regarding major depression indicate that more than half of medical professional's lack basic understanding of disorder, and have an unfavorable attitude towards patients suffering from depression (Husain et al., 2007), and only few are aware of standard procedures needed for assessment that leads to faulty diagnosis (Begum et al., 2019). Additionally, due to lack of privacy in government setups, patients are often reluctant to talk about their problems. Therefore, there is either little or almost no concept of in-depth assessment and psychological therapies. Psychiatrists only prescribe medicines for treatment (Bashir, 2018).

Within these conditions, getting a correct diagnosis and receiving treatment for it is very rare which leads to poor outcomes. Under these circumstances, in most of the cases the core symptoms that are addressed are the pressing problems with which the patient comes in. Because of this the core diagnosis given to the patient is of depression or anxiety (Beckwith, Moran, & Reilly, 2014). Factors that play a crucial role in onset and maintenance of these problems including comorbid disorders, personality disorders, adaptive functioning, and relationships with family and spouse remain grossly ignored. With a change in procedures regarding assessment (which is discussed in detail in later section) PDs are often ignored as they are not assessed properly. Because of this the core diagnosis given to the patient is of depression or anxiety (Beckwith et al., 2014).

The problem of ignoring Personality disorders at the time of assessment is not only limited to Pakistan. Rather empirical findings indicate that PDs has been and continues to be a contested diagnosis (Sheldon & Krishnan, 2009; Tyrer, 2018). Though researches

agree to the fact that this diagnosis is critical and is of central importance because it plays a key role in defining how the person is seen and how others relate to them. Despite of strong empirical evidences, PDs are often ignored by clinicians at the time of assessment which ultimately lead to poor treatment outcomes. This problem is not only limited to Pakistan but prevails internationally, with a slight difference in underlying reason (Beckwith et al., 2014). Overall, it can be attributed to three primary reasons (Tyrer, 2018) (i) there might be a failure to accurately assess personality disorder due to lack of culturally validated tools used for assessment of PDs. Moreover, indigenous practices in Pakistan indicate that time constraints and patient overload contribute to health professional's reliance on unstructured interviews to understand mental health related problems. This leads to lack of standardized procedures for assessment and consequently some disorders are under recorded and some are over recorded. (ii) "Diagnostic avoidance" might exist because of multiple reasons varying from the status of patient that includes belonging to a special minority class or sub-group to stigmatization associated with personality disorders. (iii) Most of times clinicians hold on to the "enduring" or "relatively permanent" view of personality and find it trivial to assess personality as a factor that cannot be altered. Additionally, the recent change of eliminating separate axis for PD (Axis II) complicates the problem further. As, DSM V recommended not to use multi-axial system so, PDs must compete with all other disorders (Newton-Howes, Mudler, & Tyrer, 2015). Keeping these in mind the importance of standardized tools for the assessment of personality disorders and to bridge the gap between clinician's practices, standardized procedures need to be adopted for accurate assessment of PD specifically. For this reason, one of the primary objectives of present study is to test the factor structure of a tool that is used for assessment of personality pathology and has been developed considering criteria delineated by DSM IV (Assessment of DSM IV Personality Disorders Questionnaire; ADP-IV, Schotte et al., 2004).

One of the most pertinent issues related to conceptualization of PDs is regarding their nature i.e., either they are best assessed using categorical measures or dimensional measures (Krueger, Watson, & Barlow, 2005). Empirical evidences (Krueger, Watson, & Barlow, 2005) have established that dimensional models of personality disorder assessment outclass categorical models, yet in practice clinicians use categorical model for

assessment of PDs. Though, in recent empirical literature a paradigm shift towards testing dimensional models of PDs is evident but this has raised questions regarding nature of other psychopathologies (like depression, anxiety etc.) as well. Additionally, if dimensional models explain PDs better, than it's important to test other psychopathologies following dimensional procedures as well (Ryder, Sun, Dere, & Fung, 2014).

There is a growing consensus among researchers that all mental disorders exist on dimensions not categories (Krueger & South, 2009). One of the promising systems that incorporates this assumption and has been empirically tested across 29 different societies is Achenbach System of Empirically based Assessment (ASEBA). This system considers the issue of "comorbidity" and groups' problem behaviors into two broad categories that include internalizing behavioral problems and externalizing behavioral problems. Even the DSM V has recognized the limitation of categorical system for not considering comorbidity providing support for empirically derived scales for accurate assessment of psychopathology but most of published literature on adult psychopathology is based upon traditional categorical models. With this research, an attempt is being made to test this two of the scales assessing adult psychopathology Adult self-report (ASR; Achebach & Rescorla, 2003) and adult behavior checklist (ABCL; Achebach & Rescorla, 2003) with reference to Pakistani sample.

Taking this a step further and looking at patterns of interrelationship among the two aspects of psychopathologies discussed above, empirical evidences have repeatedly highlighted the relationship between PDs and other form of psychopathologies and various models of relationship have been proposed (Widiger, 2011). Vulnerability model focuses on the fact that maladaptive personality traits and PDs makes an individual prone to maladaptive coping and faulty thought processes. Paired together, these factors, this can lead to other mental health problems which were previously rated on Axis I. Thus, presence of these traits creates a diathesis for development of other forms of psychopathologies. In contrast, the complication model suggests that presence of Axis I disorders (i.e., other psychopathologies) lead to development of PDs as the prior are responsible for maladaptive personality. However, Spectrum model proposes that both PDs and other psychopathologies share some common etiological factor and ultimately grow from the same soil. Patho-plasticity model on the other hand considers the fact that presence of PD

along with any other psychopathology has a strong potential to alter the course of treatment. If not considered, at the time of assessment, PDs can lead to poor adherence to treatment and ultimately lead to poor treatment outcomes. Though all these models have been thoroughly discussed in later section of this chapter, here it is important to establish that assessment of both PDs and other mental health problems is important at the time of initial assessment (Widiger, 2011).

In Pakistan, scant knowledge exists for their association. Even in other parts of the world, the relationship has been explored with reference to few PDs for instance in clinical with Borderline Personality Disorder (BPD) and Anti-Social Personality Disorder (ASPD) in forensic settings (Howard, 2017). Rest of the personality disorders have been grossly ignored and consequently, many PDs despite of limited evidence suggesting them as valid constructs are being deleted in DSM V section III. It becomes important to conduct a comprehensive research considering all PDs, as technically any research focusing on single PD only needs to be questioned as there exists a high degree of “co-morbidity” between personality disorders which cannot be ignored. So, the present research tries to address this gap, by assessing all PDs and shows the predictive role of PDs in other forms of psychopathologies/other mental disorders.

Similarly, when it comes to other mental disorders now commonly referred to as “clinical syndromes” or “empirically based taxonomies” it is apparent that high degree of co-morbidity-that cannot be accounted to chance factors exist among them, like PDs (Crawford, Cohen, Skodol, Jeffery, Johnson, & Kasen, 2008). Empirical data also indicate a more parsimonious structure based on unifying or common themes which categorical systems of psychopathologies are not taking into account. Moreover, emerging theories are indicating a shift towards “p factor” for instance existence of pathology factor, where presence of one psychopathology makes an individual vulnerable to another psychopathology as well (Caspi et al., 2014). Additionally, the ASEBA system that clusters problems in to two broad categories of internalizing and externalizing behavioral problems and eight narrow band problems (anxious depressed, withdrawn, somatic complaints, thought problems, attention problems, rule breaking, and intrusive problems) indicate positive relationship between both broad band scales and narrow band scales (Sokoli, Bodinaku, Paco, Gjergji, & Cala, 2016). This further provides evidence of common

unifying underlying latent structure of these pathologies as they ultimately group together to general psychopathology or total problem behavior. So, diagnosing these problems categorically, which are dimensional can lead to poor treatment outcomes. It indicates the dire need to expand and test these empirically driven models like ASEBA across societies and to establish prevalence of these problematic behaviors along these new emerging dimensions as this can add to understanding of these problems.

Past researchers have taken in to account this system of empirically based taxonomies have adopted different methodologies limiting the generalizability of findings (Achenbach, Ivanova, Rescorla, Turner, & Althoff, 2016). One of the key issues is limiting the scope of study to either one of the two broad band scales for instance internalizing or externalizing behavioral problems. In other cases, narrow band scales of thought and attention problem has been grossly ignored. Though in clinical settings such studies are relatively easier to manage but it poses challenge to testing the models across different samples and cultures. This in return negatively impacts the research process making the process of model testing for this empirically driven assessment difficult. So, researches need to take in to account both narrow and broad band scales so that further evidences can be furnished regarding replicability of findings. The present research has tried to incorporate both broad and narrow band scales to address this identified gap.

Even employing both narrow and broad band scales of empirically based assessment, another important question arises that who should provide information about psychopathology. Most of the times, in clinical settings, self-report measures are used to collect information form psychiatric patients and treatments are devised based on this assessment. Additional evidences of validity gathered by other self-report measures assessing similar construct (convergent validity). But in both cases information provider is same, the patient. It has been argued that sole reliance on self-report measures raises authenticity concerns of the findings. To deal with this concern, in some cases an additional information regarding the problem is obtained from informants that might include friend, spouse or any relative as well. Thus, comprehensive picture of the problem is based mostly on information from the patient and the informant (Olino & Klein, 2015). However, this process lacks standardization as relatively few informant-based tools are available that can provide comparative information. ASEBA provides an additional benefit where

information regarding self can be obtained using self-report measure (Adult Self Report; ASR in this case) and a comparative profile can be obtained on an equivalent informant measure (Adult Behavior Checklist; ABCL in this case). The present study intends to use both ASR and ABCL to draw a more comprehensive picture of psychopathology as previous studies using both indicate a weak correlation between the two as both are based upon subjective perceptions (Achenbach, 2006). So, it becomes important to test these findings for collectivistic cultures as well to test whether these show coherence with findings from individualistic cultures or not.

Addressing all the key components mentioned above the first part of introduction revolves around the current understanding of DSM IV based PDs highlighting the key criteria and prevalence rate of each across various demographic variables for instance gender, age, clinical and non-clinical samples. Further, the second part addresses the significant empirical issues related to assessment of personality disorders. The third part is based upon the models explaining association between PDs and other mental health related problems. Fourth part is based on paradigm shift in assessment of mental health and highlights the importance of empirically based taxonomies with a special focus on ASEBA. Fifth part is based upon the need to incorporate and compare informant related measures with self-report measures. The last part of introduction relates all these problems to mental health care system of Pakistan.

Personality and Personality Disorders

Personality has been recommended as a central construct in understanding clinical psychology. It has not only central relevance to personality assessment, but it has also been established that features of personality and mental illness are closely interlinked (Kotov, Gamez, Schmidt, & Watson, 2010). Patterns of thoughts, affect, and behavior are central features of defining personality and they affect the presentation of symptoms that are referred to as “clinical presentations.” Since now, DSM has been closely linked with mental health practice, but there is a dire need that DSM provides model of personality and other mental health problems that are based on larger groupings and employ empirically based assessment that can later help in better assessment and understanding of personality and other mental health problems. It can also help in conceptualizing the way in which

personality can become maladaptive or leads to other problematic behaviors and is referred to as personality disorder or personality pathology (Achenbach, Ivanova, Rescorla, Turner, & Althoff, 2016; Krueger, Hopwood, Wright, & Markon, 2014).

While assessing personality, considerable importance has been given to personality traits. Personality traits whether adaptive or maladaptive, have been a key area of researcher's interest. They have a detrimental role in determining pattern of individual's life. These traits when present in maladaptive form lead to personality pathology. This personality pathology, in combination with poor adaptive functioning create vulnerability for many other mental health illnesses. So, it is important to identify these precursors of psychopathology as early as possible so that interventions can be made accordingly (Paris, 1999). Despite of strong empirical evidences indicating this, in practice, clinicians often do not assess personality even for adults seeking treatment for mental health illness (Tyrer, 2018). This concern becomes more pressing when it comes to developing countries like Pakistan, where health systems are already overburdened. Though the research regarding personality and personality pathology is at a budding stage, where only few researches have taken initiative to understand how and why personality traits become maladaptive (Hassan, 2012), but the later relationship regarding how these maladaptive traits create vulnerability for other psychopathologies still needs to be understood.

As established in the earlier paragraph, personality pathology plays a central role in determining manifestation of other problems. It becomes central to move towards the issue of the way personality pathology is being operationalized and assessed. The prevalent process of assessment is categorical but emerging body of literature is indicating that dimensional models are adding valueable information and should be adopted for accurate assessment (Tromp & Koot, 2010). This issue of dimensionality or categorical nature is not only limited to personality pathology. It is also applicable to other mental health disorders as well. Emerging evidences indicate that due to higher co-occurrence of mental health problems it is appropriate to cluster them into larger group of problems such as externalizing and internalizing behavioral problems rather than going for categorical systems. (Achenbach et al., 2016; Krueger & South, 2009).

Before discussing in detail, the issues regarding prevalent practices in detail, it is imperative to develop an understanding of existing system. American Psychiatric Association (APA) relying on categorical system states “DSM-IV is a categorical classification that divides mental disorders into types based on criteria sets with defining features” (American Psychiatric Association, 2000, pp. xxxi). PDs have been currently grouped under three major clusters and have been defined as, “an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment” (American Psychiatric Association, 2000, pp. 633).

The current criteria delineated by APA are based upon the prototypes as explained by mental health practitioners who have worked with individuals exhibiting personality pathology (Sheets & Craighead, 2007). Based on similarities, DSM-IV-TR has classified PDs into three major clusters. Each cluster further comprises of group of disorders that share a common theme. Cluster A involves the common underlying theme of odd and eccentric behavior. Cluster B is overly dramatic and emotional. Cluster C comprises of disorders that involve anxiousness and fearfulness (American Psychiatric Association, 2000). An overview regarding disorders placed under each cluster, symptoms, prevalence, and demographic differences across each have been summarized in the subsequent section.

Cluster A Personality Disorder

Cluster A includes schizoid, paranoid, and schizotypal PDs. The common features of these are maladaptive social attachments and odd or egocentric behavioral patterns. This group of disorders are more common in families who have a history of schizophrenia, pointing to the possibility that these might be attributed to underlying genetic predisposition (Esterberg, Goulding, & Walker, 2010).

Schizotypal personality disorder. Schizotypal PD features a pervasive pattern of acute discomfort in close relationships and is marked by cognitive or perceptual distortions and behavioral eccentricities. Criteria for these include ideas of reference that are incorrect interpretations of events as having a particular and unusual meaning specifically meant for the individual. These delusions of reference must here be

differentiated from ideas of reference. Schizotypal PD is often characterized by having magical thinking or odd beliefs that affect the patient's behavior and deviate markedly from cultural norms. These individuals may be superstitious and may believe in telepathy and claim to have perceptual experiences like those of feeling someone's presence who is not actually there (American Psychiatric Association, 1994).

Odd speech and odd thinking are another feature of schizotypal PD. Overelaborated or vague speech patterns that are stereotyped may be present. These patients may also believe that people they work with constantly try to damage their reputation in front of their supervisors and such people do not have close friendships or any confidants except close relatives which leads to poor adaptive functioning. Most apparent reason for this is their social anxiety, paranoid thoughts, and lack of trust. During social gatherings, people with schizotypal PD tend to become tense with passage of time rather than relaxing and mixing in. This leads to weird and stiff social interactions on their part. Appearance of the individuals may seem constricted, odd, and peculiar due to above mentioned reasons (American Psychiatric Association, 1994).

Paranoid personality disorder. Common characteristic of people with Paranoid PD is pervasive distrust and being suspicious of others and considering their motives vindictive. These traits begin to appear in early adulthood and consist of maladaptive patterns of six wide ranged personality traits namely suspicion, antagonism, autonomy, hyper vigilance, exceptional sensitivity and being rigid (DSM IV, pp. 634).

The term paranoid implies not only paranoid thoughts or feelings; rather the diagnosis implies an individual who lacks trust, is oversensitive towards criticism and reacts with hostility to defend his/ her autonomy. These individuals seek examples to reinforce and conform their maladaptive beliefs. They are consistently preoccupied with beliefs that other people intend to cause them harm (Miller, Usada, Trull, Burr & Brown, pp. 542). In addition to this, individuals with paranoid PD tend to exclude people from their lives and are reluctant to make any conscious effort to cross check their beliefs. Consequently, it is paired with poor adaptive functioning in terms of interpersonal relationships. Paired together both these create a vulnerability for developing other pathologies (Akhtar, 2019).

Schizoid personality disorder. Schizoid PD is defined by a pervasive pattern of being detached from social relationships and having a limited range of emotional expression in interpersonal settings (DSM-IV; APA, 1994 p. 638). People with schizoid PD don't seem to enjoy any interpersonal contact or close relations and lack the ability to derive pleasure from personal or romantic relationships as well. Their interest in intimate sexual relations is also low and they are most likely to remain unmarried. Such individuals have a better performance at jobs that require minimum interaction with other colleagues. However, the interactions in which these individuals get involved in do not appear to give them any level of pleasure (Triebwasser, Chemerinski, Roussos, & Siever, 2012). To sum up, schizoid PD is a set of behaviors comprising of emotional detachment making the individual socially isolated.

Prevalence of cluster A personality disorders. Studies aimed at establishing prevalence of personality disorders establish that variations exist in terms of prevalence of PDs across settings for instance clinical and non-clinical, gender, age, and marital status (Torgerson, Kringlen, & Cramer, 2001). Prevalence rates along with correlates for cluster A disorder have been briefly summarized below.

Prevalence of schizotypal personality disorder. As per DSM IV, Schizotypal PD prevails in around 3% of the general population (APA, 1994). Additional studies have found that prevalence rates of schizoid PDs are higher among inpatient settings (Widiger & Trull, 1998). Lifetime prevalence of schizotypal personality disorder have been estimated to be 3.9 % being more prevalent in males. Further it's more prevalent in separated, widowed, and divorced individuals. Traits of this disorder tend to get more stable across age. Researches are consistent in confirming higher rate for Schizotypal PD in men than in women (Pulay et al, 2008).

Prevalence of paranoid personality disorder. Since the revision of DSM III and DSM III R, there has been seen an increase in the prevalence rate of paranoid PD among clinical samples. Prevalence of paranoid PD has been found to be 3.3% in young adults aged 18 to 21 (Bernstein et al., 1993). According to DMS IV (1994) the rates of Paranoid PD prevalence are 0.5 – 2.5% in the general population while 10- 30% prevalence

rates are reported in inpatient psychiatric population with 2-10% in the outpatient mental health clinics (APA, pp. 636).

Paranoid PD is more common in males and much empirical evidence supports the same. Many discrepancies prevail regarding prevalence of paranoid PD. A study conducted in New Zealand on community sample indicated that 12.6 % of the sample demonstrated paranoid features (Poulton et al., 2000). Another study following DSM III R criteria, conducted on community sample in Oslo estimated that rates of paranoid PD to be 2.4%. In addition to this people with high school education or less had more paranoid PD. Similarly, presence of paranoid PD has been linked with problematic relationship with spouse as well (Torgerson, Kriglen, & Cramer, 2001).

Prevalence of Schizoid personality disorder. Relatively less empirical research has been done with reference to schizoid PD. Bernstein, Cohen, and Velez (1993) assessed community-based sample of teenagers and 1.8% of them received the diagnosis of schizoid PD. Following the criteria of DSM III R, a study conducted on community sample in Oslo found the prevalence of schizoid PD to be 1.7 %. The study also found schizoid to be more prevalent among men. Across age, older individuals had more schizoid features (Torgerson, Kriglen, & Cramer, 2001).

Comorbidity of Cluster A with other personality disorder. A challenging area of research which has implications in assessment of PDs involves overlap among the personality disorders defined by the DSM classification system. Many studies report high overlap among the PDs defined in DSM. As evident by empirical evidence, DSM system has elevated its interrater reliability (co-occurrence of assessment among two different raters) however the diagnostic scheme may have some problems. For instance, most studies on the inpatient setting verified that individuals diagnosed with paranoid PD also receive additional diagnosis of PDs (Zimmerman, 1994).

Morey (1988) reported while addressing the problem of boundary of the disorder, that 22% of 291 individuals in outpatient settings met the criteria for paranoid PD diagnosis while undergoing treatment for other PDs. Individuals diagnosed with Paranoid PD were often also diagnosed with borderline PD (48%), narcissistic PD (35.9%) and avoidant PD (48.4%). Similarly, in review of DSM III R's efficacy and performance 41% among

paranoid PD, Borderline PD and avoidant PD were reported by Widiger and Trull (1998) and a problematic co-occurrence of 38% among Schizoid PD, Borderline PD, Narcissistic PD and Avoidant PD were not included in cluster A grouping, therefore indicating that PD overlap is not limited to cluster.

Cluster B personality disorders

Cluster B comprises of histrionic, borderline, narcissistic and anti-social personality disorder (French & Shrestha, 2020). From these borderline and antisocial personality disorders have been studied extensively because of high prevalence rates. Borderline PD has been found to be most prevalent among clinical sample among all other PDs whereas anti-social personality disorder is more prevalent in forensic settings. Cluster B is believed to be more complicated because of increased risk of suicide associated with it (Tyrer, 2014). Empirical issues regarding each disorder from cluster B have been briefly summarized below:

Histrionic personality disorder. In the fourth edition of APA's DSM IV, the histrionic PD is defined as "a pervasive pattern of excessive emotionality and attention seeking, beginning by early adulthood and present in a variety of contexts" (APA, 1994, pp. 657). The narrative description of the disorder includes "behavioral patterns characterized by excitability, emotional instability, over-reactivity, and self-dramatization. This self-dramatization is always attention-seeking and often seductive, whether the patient is aware of its purpose or not. These personalities are also immature, self-centered, often vain, and usually dependent on others. (APA, 1968, pp. 43)".

One of the most pertinent criteria based on which diagnosis of histrionic PD is made involves sexually seductive behavior and being uneasy in social situations where the center of attention is elsewhere This further highlights the need for empirical testing of criteria for histrionic PD, though researches are repeatedly suggesting for empirical testing of criterion of histrionic PD (Widiger et al., 1995).

Blais, Hilsenroth, and Castlebury (1997) and Blais and Norman (1997) investigated the preliminary researches on the DSM-IV criteria for histrionic personality disorder. They indicated that the DSM-IV histrionic criteria set yielded a weak internal consistency, with Cronbach's alpha of .66, and many of the items correlated with narcissistic as well as

borderline PD criteria. It was also reported that the unfocused speech and suggestibility criteria did not correlate with the other histrionic criteria (Blais & Norman, 1997, pp. 175). An improvement in the internal consistency of the histrionic PD criteria from .61 to .67 would be obtained by 9 randomly selected criterion of personality disorders. However, weak correlation level was reported for the criteria related to discomfort when not being the center of attention criterion and that of suggestibility.

Narcissistic personality disorder. Narcissistic personality disorder is defined as a pervasive pattern of grandiosity, lack of empathy characterized by excessive need for admiration, usually starting at early adulthood and is present in a variety of contexts. (APA, 1994, pp. 661). Important defining characteristics of narcissistic personality disorder include inflated self-esteem and a sense of entitlement or grandiosity. Need to be praised is also prevalent and is often comorbid with feelings of suspicion of intentions of others (Young, 2003). Narcissistic personality disorder is often comorbid with other disorders while also being associated with significant functional impairment and psychosocial disability (Miller, Campbell, & Pilkonis, 2007).

Empirical evidences indicate that one of the least studied personality disorders has been narcissistic PD (Caligor, Levy, & Yeomans, 2015). Consequently, there is a considerable amount of confusion as far as reliability, validity and sensitivity of the diagnostic criteria is concerned (Levy et al., 2009). Due to limited research narcissistic PD was initially considered for omission from DSM V also, however; after the feedback from clinicians the decision was reversed.

Borderline Personality Disorder. BPD is defined as dysregulation and a pattern of instability in emotional, interpersonal cognitive as well as behavioral domains. In DSM IV, a new criterion was added to cover the cognitive aspects that includes stressful, paranoid ideas or dissociative symptoms according to DSM IV, 5 out of 9 criteria must be present for diagnosis. These criteria were reset and rearranged by Linehan (1993) and Paris (1999). BPD patients go through affective instability and emotional disturbance. Their moods are highly affected by the environmental stimuli. Massive mood shifts may occur during the course of a single day (Paris, 1999).

Secondly, the BPD patients also experience difficulties in maintaining interpersonal relationships. They tend to become easily involved with others, but their relationships are stressful, intense, and often chaotic (Linehan, 1993). People with BPD may report experiencing either being fully consumed by others or being completely abandoned. They are oversensitive to rejection or abandonment. These fears cause great difficulty in maintaining stable interpersonal relationships. As a result, complications in relationships are very common among these individuals. Resultantly individuals with BPD get involved in frantic efforts to prevent being abandoned which further exhausts them emotionally (Paris, 1999). Self-destructive and impulsive behavior, which may manifest in form of substance abuse, sexual promiscuity, overdosing, binge eating, and reckless behavior, is considered as a maladaptive strategy for coping with the resulting dysphoric affect present in BPD (Khan & Kamal, 2018; Linehan, 1993).

Anti-social personality disorder. The criteria for ASPD consist of a series of items indexing a lifelong pattern of overt antisocial acts plus traits of impulsivity, irritability, and remorselessness. ASPD is one of the most reliable of all diagnostic categories (Coid, 2003), while its validity is often questioned. The diagnosis of ASPD is based on robust scientific evidence identifying a group of individuals who display antisocial behavior from a very young age that remains stable across the lifespan. This population of persons with ASPD is heterogeneous, composed of distinct sub-types defined by co-morbid disorders (De Brito & Hodgins, 2009, pp. 133). Empirical evidences have repeatedly documented that presence of ASPD has been strongly linked up with criminal offences.

Individuals, and most specifically males, with ASPD evidence elevated rates of premature death that result largely from repeated engagement in reckless behaviors. Researches give central importance to understanding correlates of Conduct disorder (CD) to develop a better understanding of ASPD. The prevalence of CD increases as the level of social deprivation of the child's family increases (Green, Kern, & Heaton, 2004). So, it becomes important to study the area of adaptive functioning in case of ASPD.

Prevalence of Cluster B personality disorders. Differences have been documented in prevalence pattern of cluster B PDs across age, gender, and type of sample

(for instance clinical or non-clinical). Among cluster B PDs, BPD is one of the most researched PD which is often attributed to its high prevalence in clinical sample. Similarly, in forensic settings, ASPD is considered to be most researched. Minimal empirical evidence exists regarding prevalence of histrionic and narcissistic PD. Findings regarding prevalence of cluster B, have been briefly summarized below:

Prevalence of histrionic personality. Empirical evidence indicates presence of histrionic PD to be 2 to 3 % in general population. Across gender, the study found it to be more prevalent among females in comparison to males. However, this higher prevalence among females can be attributed to biased assessment. Males are less likely to report the symptoms of histrionic PD which can be a potential contributing reason for histrionic PD among them. Role of education in relation to histrionic PDs have not been well established (Nestad et al., 2008). Similarly, a study aimed at establishing the median prevalence of PDs over a decade across different community samples found median prevalence of histrionic PD to be 2.10. For this study the lowest prevalence was found to be for community sample of New York using DSM III R criteria for assessment (Moldin & Erlenmeyer-Kimling, 1994) and the highest prevalence was found to be for 4.5 for Sweden using semi structured interview schedule based on DSM III R criteria (Bodlund, Ekselius, & Lindstrom, 1993). This study also found histrionic PD to be more prevalent among women (Torgerson, Kringlen, & Cramer, 2001).

Findings by Zimmerman, Rothschild, and Chelminski (2005) indicate that despite of high comorbidity among PDs, histrionic PD and avoidant PD are more likely to be diagnosed alone among psychiatric outpatients. Following DSM IV criteria, the study established the prevalence rate of histrionic PDs to be 1 % among psychiatric outpatients.

Prevalence of narcissistic personality disorder. There is lack of research regarding the prevalence of narcissistic PD. Limited empirical work aimed at establishing the prevalence indicates that among clinical samples prevalence of narcissistic PD has been reported to vary from 1 to 17%. Whereas for community sample prevalence has been found to be around 5.3% (Ronningstam, 2009). Like this, prevalence has also been established as low as 2% and as high as 16 % (APA, 1994). Risk factors associated with narcissistic PD include sex (being male), age (young) and being single (Stinson et al., 2008).

Another research carried out with Chinese clinical population aimed at establishing the prevalence rate of narcissistic PD indicated its prevalence to be 4%. The study also found it to be more common in males as compared to females. Additionally, individuals with narcissistic PD had better levels of education as compared to individuals with other disorders (Jiang et al., 2019). In comparison another study conducted with community sample found the prevalence rate of narcissistic PD to be 2 % (Torgersen, Kringlen, & Cramer, 2001). The study also aimed to review researches conducted to establish prevalence over a past decade and found median prevalence of narcissistic PD to be 2% as well. The lowest prevalence was documented to be 0 % conducted in Iowa community sample based on DSM III criteria whereas the highest prevalence was documented to be 5.3% conducted in Sweden based on DSM III criteria.

Prevalence of anti-social personality disorder. Zimmerman Rothschild, and Chelminiski (2005), working with psychiatric outpatients found that 3.6 % had ASPD. Among these 41.9 % patients had ASPD without any other comorbid PD. In contrast, a comparison of prevalence across community samples over a period of ten decades found median prevalence of ASPD to be .80. Lowest prevalence documented was 0.2 for community sample of Germany using SCID II (Maier, Lichtermann, Minges, & Heun, 1992) whereas highest was recorded 3.3 for Iowa based on DSM III criteria (Zimmerman, 1994). These studies also found ASPD to be more prevalent among males (Torgerson, Kringlen, & Cramer, 2001).

Prevalence of borderline personality disorder. There has been an increase in clinical interest in BPD over the last two decades which can mainly be attributed to a larger number of individuals reporting to mental health clinics. National Comorbidity Survey, several studies have indicated a 2% prevalence rate in the general population (Paris, 1999). However, this has not been verified by the Epidemiological Catchment Area (ECA). In clinical samples prevalence is greater and reaches about 11% (Widiger & Frances, 1989). Going into a more sensitive sample, that of inpatient setting, the figure is elevated till 19%. In samples where the individuals are diagnosed specifically and exclusively with PDs the prevalence rate ranges from 30 to 60% (Widiger & Trull, 1993). This is in line with the results indicating that BPD is one of the most common PDs in clinical studies (Hassan, 2012; Khan & Kamal, 2018).

Various controversies exist around higher prevalence rates of BPD among women when comparison is done across gender (Sansone & Sansone, 2011). A study by Becker and Lamb (1994) confirmed the influence of this sex bias. In their study, surveys were mailed to various mental health service providers who were asked to diagnose hypothetical scenarios where a patient met the criteria either for Post-Traumatic Stress Disorder (PTSD) or for BPD. Male and female cases were mailed half and half. Findings indicated that there were more frequent female BPD diagnoses than male despite the scenarios being same for both male and female cases.

Co-morbidity of Cluster B disorder with other personality disorders. Much work with reference to cluster B personality disorders has been limited to BPD. Empirical findings suggest comorbidity to be as high as 87% with other PDs in case of BPD. More than half of patients with BPD had a paranoid PD (cluster A) and obsessive-compulsive PD (cluster C) (Palomares et al., 2016). Another study found a strong association between BPD and ASPD (both are cluster B disorders) (Howard, Khalifa, & Duggam, 2014). Though there is paucity of literature with reference to histrionic PD, but minimal researches conducted indicate that it is highly comorbid with BPD, narcissistic, and dependent PDs (Candel & Turliuc, 2019). With reference to narcissistic PD a strong comorbidity has been documented with histrionic, antisocial, obsessive compulsive and schizotypal PD (Coolidge, Marle, Van Horn, & Segal, 2011). Thus, it can be concluded, that comorbidity exists both within the cluster and outside the cluster as well.

Cluster C personality disorder

Cluster C comprises of avoidant (AVP), dependent (DPD) and obsessive compulsive (OCPD) personality disorders. These have been paired together based on shared feature of anxious and fearful dimension (Fossati et al., 2006). Empirical evidences suggest that despite of high prevalence, this cluster has been studied less in comparison to cluster A and Cluster B (Gude & Vaglum, 2001). This further highlights the need that this cluster need to be studied more as PDs are at a crossroad with respect to theory, research, and conceptualization.

Obsessive-compulsive personality disorder. OCPD involve a persistent pre-occupation with order, a pervasive desire to control and strive for perfectionism. It

involves marked preoccupation with minor details, rules, giving structure to things, scheduling, and constant standards of expectations. An overly conscientious attitude and rigidity regarding moral values, cultural norms and strict adherence to religious beliefs is also apparent. These patterns are pervasive and persistent to the extent that they start interfering with daily schedules (Grant, Mooney, & Kushner, 2012).

Above discussed patterns are consistent and not limited to a certain behavior. It includes a rigid and perfectionistic set of thought regarding how certain things must be. This rigidity is so apparent that it leads to difficulty in assigning tasks and duties to others. Excessive devotion to work related activities is apparent in the form of self-limiting perfectionism (American Psychiatric Association, 2000). Review of literature regarding OCPD, indicates a dearth of literature where its relationship with other PDs has not been studied much. Also, its role in other mental health problems has been grossly ignored (Coles et al., 2008; Grant, Mooney, & Kushner, 2012).

Dependent personality disorder. Dependent personality disorder (DPD) has evolved from an abstract idea rooted in a historic and psychoanalytic context to a codified diagnosis in the DSM-IV-TR (Disney, 2013). DPD usually involves “a pervasive pattern of submissive and dependent behavior, beginning by early adulthood and present in a variety of contexts” (p. 354). Five of the following nine criteria were to be met in order to qualify for the diagnosis that included inability to make everyday decisions, allowing others to make important decisions; agreeing with people even if they are thought to be wrong; difficulty in initiating projects, performing unpleasant tasks to obtain the approval of others, disliking being alone, feeling of devastation when close relationships end, constant preoccupation with fears of abandonment; and being easily hurt by criticism or disapproval. Empirical evidence indicates that minimal research has been done on DPD in comparison to Cluster A and B PDs (Loas, Cormier, & Perez-Diaz, 2011). As a consequence, DPD was also slated for deletion in DSM-V as proposed by Personality Disorders Work Group. Despite of this, the American Psychiatric Association’s Board of Trustees finally decided not to approve the proposed changes (Gudjonsson & Main, 2008).

Avoidant personality disorder. Avoidant personality disorder (AVP) involves enduring patterns of excessive fear of negative evaluation paired with feelings of

inadequacy. Both these features lead to avoidance of social situations (American Psychiatric Association, 1994). In the light of criteria listed by DSM IV four out of total seven symptoms should be present for diagnosis of AVP. The first criteria of AVP is regarding avoidance of occupational activities that usually involves interaction with others. This can also include limiting one's interaction in educational setting leading to poor academic functioning. This pattern needs to be differentiated from perfectionism which is a core feature of obsessive-compulsive personality disorder, in which an individual avoids working with others because of high standards of perfectionism that involves a set of core belief that working in groups would lead to decline in productivity as others will not be able to meet the set standards. The second criterion is regarding an enduring pattern of unwillingness to get involved with others unless one is certain that they would like him/her. Third criterion revolves around "restrain within intimate relationship" because of fear of abandonment and rejection. Fourth criterion is regarding concerns of being ridiculed in public situation. Fifth criterion is regarding feelings of inadequacy which leads to difficulty in interpersonal relationships. The sixth criterion is regarding self-concept that involves negative elements of inadequacy, inferiority and socially unacceptability. The seventh criterion is regarding reluctance to take any risk or taking part in any activity because of underlying fear of failure. Presence of these symptoms create vulnerability for cognitive errors leading to development of problems like anxiety, withdrawal, and anger. As the prime concern evident is regarding avoidance, so this often leads to poor relationships leading to lower levels of adaptive functioning.

Prevalence of Cluster C Personality Disorders. Differences have been documented in prevalence pattern of Cluster C PDs across age, gender, and type of sample (clinical or non-clinical). Among Cluster C PDs, dependent personality disorder is considered to be one of the most researched PD which is often attributed to its high prevalence in clinical sample. Findings regarding prevalence of cluster C, have been briefly summarized below:

Prevalence of Obsessive-Compulsive personality disorder. Surveys by Epidemiological Catchment Area (ECA) using DSM III criteria found OCPD prevalence to be 1.7% among community sample (Nestadt et al., 2008). Prevalence rose to 2 % using DSM III R criteria among community sample (Torgerson et al., 2001). A much higher

prevalence rate of 7.8 % was found using DSM IV criteria among community sample (Grant et al., 2004). Surveys by National Epidemiological Survey on Alcohol and Related Conditions (NESARC) using DSM IV criteria also found prevalence to be 7.9 % among community sample. Prevalence rates for both males and females were 7.9 %. Across age younger individuals were less likely to have OCPD. With reference to education an inverse relation was apparent between years of education and OCPD (Grant, Mooney, & Kushner, 2012). Median prevalence of OCPD over a decade across community sample was found to be 2.10 (Torgerson, Kringlen, & Cramer, 2001). Lowest prevalence was 0 % based on DSM III R criteria in a community sample of New York. Whereas, the highest prevalence was 9.3 % based on DSM III criteria in community sample of Iowa.

With reference to clinical sample among patients with obsessive compulsive disorder prevalence rate of OCPD was 22.9 % (Albert, Maina, Forner, & Bogetto, 2004). Similarly, another study conducted on psychiatric outpatients found the prevalence of OCPD to be 8.7 % (Zimmerman et al., 2005).

Prevalence of dependent personality disorder. Among community sample prevalence rate of DPD was found to be 1.5 %. Similarly, median prevalence rate of DPD was found to be 1.25 (Torgerson et al., 2001). Lowest prevalence rate of DPD using DSM III R criteria was found to be 0.4 for a study conducted on a community sample in New York. Whereas, highest prevalence rate was found to be 10.3 using DSM III criteria for a study conducted on a community sample in Boston. Studies have been consistent in reporting DPD to be more prevalent among females in comparison to males (Torgerson et al., 2001). Critics have emphasized that high prevalence rates of DPD among females represent clinician's bias towards assessing the symptoms rather than real difference (Anderson, Sankis, & Widiger, 2001). Few studies on the contrary have found no difference (King, 2000). So, it is important to re-evaluate and reconsider these differences to tests whether they are real or not. A study conducted on outpatients found the prevalence rate of DPD to be 1.4 % (Zimmerman et al., 2005). Similarly, among a sample of patients with major depressive disorder the prevalence rate for DPD was 37.11 % (Zheng et al., 2019).

Prevalence of Avoidant personality disorder. APD has a prevalence rate of about 1 – 2% in the general population and is more common in the outpatient psychiatric clinics where the rate becomes 10 – 20 % (Sanislow, Bartolini, & Zoloth, 2012). In a study, based on a sample from a Norwegian community, APD was found to be most common PD having a prevalence rate of 5% (Torgersen et al., 2001). In another study conducted in Oslo, prevalence rate for APD was found to be 5 %. Like dependent personality disorder, APD is also more prevalent in females as compared to males. Median prevalence of APD over a decade across community sample was found to be 1.20 (Torgerson, Kringlen, & Cramer, 2001). Lowest prevalence rate was recorded using as 0 using DSM III criteria for Iowa (Black et al., 1992). Whereas, highest prevalence rate was recorded to be 5.2 using DSM III R criteria for New York (Klein et al., 1995). For clinical outpatient's prevalence rate of APD was found to be 14.7 % (Zimmerman et al., 2005). Similarly, among a sample of patients with major depressive disorder the prevalence rate for DPD was 62.40 % (Zheng et al., 2019).

Comorbidity of cluster C with other personality disorders. Disorders from cluster C show significant overlap with other PDs especially from cluster C (Alden, Judith, Laposa, Taylor, & Ryder, 2002). A substantial degree of overlap has been documented between DPD, and other two disorders of Cluster C either avoidant or obsessive-compulsive PD and even both (Disney, 2013). In contrast, few researchers have found both APD and OCPD as precursors for DPD, again providing an evidence for significant degree of overlap (Akman, Uguz, & Kaya, 2007). With reference to functional impairment, individuals with DPD can manage their work in comparison to people with avoidant personality disorder who are more likely to get unemployed (Disney, 2013).

In addition to this, disorders from Cluster C are likely to show comorbidity with disorders from other clusters as well. (Disney, 2013). A strong correlation has been observed between BPD and histrionic PDs from Cluster B (Gude & Vaglum, 2001). More research is needed to understand reasons for this underlying comorbidity.

Personality Disorder not otherwise specified (PD NOS)

When the problems with inter and intrapersonal functioning are not addressed by any specific PD criteria, the patient is diagnosed with personality disorder not otherwise

specified (PD NOS) as per DSM and ICD. PD NOS is very common but quite a complicated diagnosis. Both DSM and ICD define PDs as pervasive patterns of intra and interpersonal malfunctioning. This criterion first made its appearance in the fourth DSM edition to cover cases where there was a PD, but it was not accounted for by any of the other subtypes. It has now become the most commonly diagnosed PD yet not much understood in terms of dynamics and interplay with other mental health problems. As per DSM IV classification system it is further categorized into NOS depressive and NOS passive aggressive PD (Johnson & Levy, 2017).

In a study by Pedersen et al. (2013) it was observed that among a sample of 1217 admitted day hospital patients over consecutive days, the avoidant and borderline PD symptoms were both present in patients who received diagnosis of PD NOS and as secondary diagnoses received avoidant and borderline PD. In a similar study, Godt (2007) identified that among a sample of eating disorder patients who also had PD NOS there existed several symptoms of avoidant and borderline PD. Horn et al. (2015) found out that the criteria of cluster C disorders were distinctly apparent in their PD NOS sample. It may be possible that high percentage of BPD and APD prevalence is a contributing factor for the symptoms being increased in PD NOS. It is imperative to understand that in terms of adaptive functioning, individuals with PD NOS show better functioning (Wilberg, Humelen, Pedersen, & Karterud, 2008).

Prevalence rates of personality disorders NOS. Prevalence of PD NOS is highly dependent on the sample, diagnostic tools and definition of the disorder used. Generally, about 1- 4 % community-based samples are diagnosed with PD NOS while 20-30% of all community PD diagnoses fall into PD NOS. This prevalence rate varies in clinical samples based on the condition if the treatment is PD based or not. Within the PD only samples almost 30% of diagnoses may fall in PD NOS. A study by Wilberg, Humelen, Pedersen, and Karterud (2008), found PD NOS to be the third most commonly diagnosed PD. The absolute prevalence of PD NOS varies from 16 to 17 % in clinical outpatients. Verheul and Widiger (2004) found the prevalence of PD NOS to be between 8 to 13 % among clinical sample.

Morey et al. (2003) suggested that the PD NOS form the lowest end of the severity continuum and fall between individuals with OCPD and narcissistic PD. This data finding is also supported by Feenstra et al. (2012). They found that severity of PD NO is lower in diagnosed adolescents who presented with a higher reported life quality as compared to the ones with other, non-PD and PD diagnoses.

As established in previous section much debate with reference to PDs is regarding empirical testing and refinement and modification of diagnostic criteria over time. So, it becomes important to test the factor structures specifically for tools based on DSM criteria. In order to assess whether they are accurately depicting the problem or not. To address these gaps in existing literature the present study aims to test the factor structure of DSM based assessment tool ADP-IV. Secondly the study also aims to establish prevalence rates of PDs in both clinical and non-clinical sample to enhance the understanding regarding prevalence rates and demographic correlates of personality disorder with reference to Pakistani sample. As paucity of literature exists regarding prevalence of PDs within Pakistani culture consequently, they remain an unexplored area as minimal empirical evidence exist with reference to PDs in Pakistani society. Similarly, it is important to understand the way PDs are conceptualized and assessed internationally in the broader context and in Pakistan specifically. As this will enable researchers to develop a better understanding of the role that culture plays in the manifestation of problem behaviors in PDs.

Keeping all these factors in mind, it's important to understand for accurate assessment of PDs clinicians need to be sensitized about the clinical utility of diagnosing PDs as it can alter the treatment course and can lead to better treatment adherence and outcomes. Further, more research is needed on PDs other than BPD, so that dynamics of these can be understood as well (Tyrer, 2018). Additionally, efforts need to be centred on testing more tools for assessment of PDs can that standardized procedures can be adopted for assessment.

Clinical Implication for the loss of multi-axial system

As established earlier, comprehensive assessment is a lengthy process and in developing countries like Pakistan where health systems are already overburdened standard

procedures for assessment are not used. Under these conditions, the amount of time spent by a clinician in assessing the symptoms and making a diagnosis is very less. Usually, a cross sectional assessment of symptoms is carried out and a diagnosis is made. The median consultation time is 13.89 minutes against the expectation of 16.37 minutes (Qidwai, Dhanani, & Khan, 2003). In such cases, if multi axial system of assessment is not there, then it would be unlikely that PD would be prioritized over mental disorders (Newton-Howes, Mulder, & Tyrer, 2015). Even though, it is empirically established that PDs if present can alter the treatment outcome and assessing personality during initial assessment pay off in the longer run. Clinicians are reluctant to diagnose PDs because of lack of accurate assessment instruments and stigmatization associated with PD labels. In practice, clinicians focus more on primary mental health problems that are exhibited in the form of emotional and behavioral problems and ignore the diathesis factor which include PDs that contribute to these conditions (Tyrer, 2018).

Though researchers working on personality pathology are not advocating that DSM IV multi-axial system should be introduced again but they have concerns that this will negatively affect the research on personality pathology (Newton-Howes, Mulder, & Tyrer, 2015). Because the prime focus of clinicians would be on designing strategies to improve the primary diagnosis of emotional and behavioral problems. Because of this, psychiatric patients would receive a treatment that would not address the co-morbid personality issues which empirical evidences indicate would not be as effective as it would be if personality has been assessed properly. So, there is a need to devise a system where personality assessment of every psychiatric patient needs to be done along with assessment for other pathologies. These efforts could include simplifying the method of personality assessment that could involve more simple and accurate tools to assess personality pathology and design methods to assess associated distress with it. It also includes sensitizing clinicians about comorbidity between personality and other mental health problems. The gap between research and clinical practice needs to be bridged (Tyrer et al., 2011; Tyrer, 2018). The present study tries to fill this gap by using ADP IV, that asses both trait and distress associated with it. In addition to this, both categorical and dimensional assessment can be carried out. Before concluding the part of research on PDs it is important to develop an

understanding of overall issues that prevail relying on DSM is system of classification for PDs. The subsequent section will consider the key issues with assessment of PDs.

Issues with assessment of personality disorders

DSM-IV-TR (APA, 2000) ignored the critical relevance and importance of personality in clinical settings. Like other mental health disorders, personality disorders (PDs) were approached in a manner that was “categorical” and “polythetic” with “arbitrary threshold” for diagnosis. While approaching disorders with categorical approach researchers assume that disorders are, dichotomous in nature that means either they are present, or they are absent. For example, dichotomous nature of borderline and anti-social personality can be explained in terms of either a patient will have a disorder or not. By “polythetic” DSM referred to different combination of symptoms receiving similar diagnosis. A probable drawback of this approach was ignorance of cluster of symptoms that were making up a particular PD. For example, eight diagnostic criteria’s have been identified in patients with obsessive compulsive personality disorder (OCPD). Out of these eight if four are present, the individual meets the criteria for OCPD. Now an individual having first four symptoms only was given the label of OCPD whereas, individual showing the later four symptoms will also get the similar label. This leads to underestimation of individual symptoms that are making up a particular disorder. Though there were some changes in criteria from DSM III to DSM IV, but no empirical basis was determined to establish the arbitrary differences (Widiger & Samuel, 2005). Moreover, the issue of “arbitrary threshold” received critical importance in recent times. Cooper and Balsis (2009) found that for schizoid personality disorder cases where individual endorsed only three symptoms rather than four required to make the diagnosis of disorder showed more impairment and maladaptive patterns.

To conclude, it can be inferred that despite of vast available literature of personality pathology over the past 30 years no empirical evidence was incorporated in classification of PDs. 10 distinct PDs were proposed and retained despite of literature indicating it to be flawed and broken (Krueger, Hopwood, Wright, & Markon, 2014). They key problems identified included “co-morbidity, with in category heterogeneity, and empirical continuity versus dimensionality of specific PDs.” All these are briefly summarized below:

Co-morbidity

Co-morbidity refers to phenomenon where two distinct and distinguishable disorders (having distinct psycho-physiological patterns and etiological causes) tend to co-occur in the same person more than what can be attributed to chance factors. Research on PDs following DSM IV categorical approach indicate that it is difficult to give a single diagnosis of any one PD, the average diagnosis varies from 2.8 to 4.6 (Tyrer, 2018). These practical issues highlighted for a dire need to major revision in existing criteria.

This not only made the process of diagnosis difficult but also added to difficulty in planning of intervention and treatment. Like if an individual is having “quadri-morbid” PD diagnostic profile, should he/she be given treatment for one or all four disorders. Limited interventions have been done with reference to PDs as much work on PDs has been limited to borderline personality disorder (BPD) because of its high prevalence in clinical samples (Matusiewicz, Hopwood, Banducci, & Lejuez, 2010). Another complexity with reference to PD lies with in co-morbidity which can be between disorders from similar clusters and disorders from other clusters as well commonly referred to as with in cluster co-morbidity and across cluster co-morbidity (Skodol et al., 2002). The present research aims to address this by establishing prevalence, so that evidence could be furnished regarding comorbidity and efforts could be made to incorporate this element in treatment.

Within Category Heterogeneity

Group of individuals who receive the diagnosis of PD in case of comorbidity represent underlying heterogeneous combination of symptoms. Members of specific category are heterogeneous because of co-morbid diagnosis. Heterogeneity is also evident even if an individual meets criterion for single diagnostic label. Borderline personality disorder has been studied most with reference to other PDs. So, the phenomenon of within category heterogeneity has been best explained with reference to it. Six distinct patterns have been identified among patients with BPD in term of symptom manifestation. Most prominent of these manifestations include anti-social behavior, self-injurious behavior, and recurrent history of suicide (Wright et al., 2013). Now all these patterns are different from each other. It has been established that those who exhibit self-injurious behavior are less likely to commit suicide. As this self-injurious behavior is a way of dealing with underlying

emotional instability and a channel to vent out distress. Therefore, it reduces the chances of suicide. Thus, individuals exhibiting this symptom are markedly different from ones attempting suicide. This makes even the single diagnostic label of BPD heterogeneous. So, co-morbidity along with marked differences among labels identified within single PD poses a challenge to clinical utility (Skoldol et al., 2002).

Continuity vs. Discontinuity of DSM (Dimensional vs. Categorical Approach)

The categorical assessment and issues related to heterogeneity are equivalent to categorizing into forced categories that does not actually exist and are even empirically supported (Eaton, Kruger, South, Simms, & Clark, 2011). When empirical data is analyzed using latent class and latent trait models and combining both these approaches (hybrid models) evidence of continuous nature of PDs is more apparent and all models proposing continuous nature of PDs indicate a better model fit (Krueger, Markon, Patrick & Iacono, 2005; Markon & Krueger, 2005). Evidences for discrete PD groups are scarce. Large-scale epidemiological studies have employed both taxonomic and latent variable mixture modeling approaches. Findings indicate that little evidences are available for discrete nature of schizotypal disorders. In contrast, dimensional model has shown an overall better model fit. The proposed dimensional structure has predicted intellectual functioning, psychosis and treatment seeking better (Ahmed et al., 2016).

Though the phenomenon described in DSM are of central importance in defining psychopathology but the relevance and consequences of following the criteria's need to be revisited. It has been found that individual only reporting one symptom of borderline personality disorder at the time of psychiatric intake are more likely to show a history of poor interpersonal relationships, poor performance at work due to mental health issues, self-harm and suicidal ideation as compared to those exhibiting no symptom of borderline personality disorder (Zimmerman, Chelminiski, Young, Dalrymple, & Martinez, 2013). It can be inferred that though the frequency of symptoms in far below the minimum threshold suggested by DSM-IV but the consequences are lethal and have lasting impact on individual's psychosocial functioning. This also highlights the dire need to move from traditional committee decided approaches, which are categorical in nature to empirically based taxonomies (Skodol, Morey, Bender, & Oldham, 2013).

All these evidences led to adoption of more open and empirically driven approach for the classification and revision of PDs, but it became increasingly conservative with time (Krueger, Hopwood, Wright, & Markon, 2014). Therefore, two segregated and distinguishable categories emerged in final DSM 5. Section II comprising of “diagnostic and criterion codes” where again the focus is on traditional categorical approach and Section III labeled as “emerging measures and codes”. This section incorporated the empirical literature and provided a dimensional alternative to traditional categorical assessment. The more dimensionally driven PD system in DSM V received extensive criticism (Skodol et al., 2013). Consequently, though DSM task force proposed inclusion of dimensional based PD model in Section II, but board of Trustees of American Psychiatric Association out rejected it rightly. Therefore, dimensional model of PDs has been retained in section III and categorical model has been reprinted essentially verbatim as proposed by DSM IV in section II. Only minor changes have been incorporated that includes the change of PD not otherwise specified category to “unspecified or other specified PD” (Widiger & Frances, 2002).

Dimensional models constantly outperform categorical models (Widiger & Frances, 2002). Ignoring symptoms and relying on arbitrary threshold leads to loss of potentially useful and critical information. Conceptualizing models of PDs based upon dimensional models show better psychometrics and clinical utility (Verheul, 2005). Clinical utility is defined as “the extent to which DSM assists clinical decision makers in fulfilling the various clinical functions of a psychiatric classification system” (First et al., 2004). The prevalent and widely used categorical system does not take into account this factor. Growing body of empirical evidence is indicating that dimensional models like Five Factor Model (FFM), Dimensional Assessment of Personality Pathology (DAPP), and Schedule for Non-adaptive and Adaptive Personality (SNAP) yield better results in comparison to categorical systems (Tackett, Silberschmidt, Krueger, & Sponheim, 2009). Even with reference to Pakistan preliminary work has been done regarding establishing relationships between FFM and DSM IV PDs, following dimensional scoring procedures (Hassan, 2012).

In contrast categorical approach has received much criticism on issues related to comorbidity and relying on compelling thresholds for diagnosis. Dimensional models in

comparison provide a more comprehensive picture by considering the issue of maladaptive variants by operationalizing PDs on a continuum. Despite of this clinicians rely heavily on categorical approaches. Huprich and Bronstein (2007) critically evaluated the methodological issues regarding categorical and dimensional models. Strong issues regarding measurement were found in both each having its own advantages and disadvantages for instance dimensional models are primarily based on self-reports that has its own issues. Similarly, categorical models show problems with psychometrics and clinical utility. Taking this into account, the present research aims to test ADP IV that considers both issues simultaneously.

Empirical findings by Widiger and Costa (2002) regarding personality and personality disorders have served as a corner stone in deciding the way PDs need to be conceptualized. A step wise procedure has been recommended that at first level involves a compressive assessment procedure using both personality and FFM. At level two the element of impairment and distress need to be incorporated. At third level the element of clinical significance (related to distress need to be established). Lastly, if a single category is achieved than a step further should be taken at developing prototypes and refining diagnostic (Widiger & Costa, 2002). Taking these steps as a guideline and taking it a step further from the work that has been done till now, the present research aims to rely on the algorithm of both trait and distress score across ADP IV and establishing prevalence. Further it aims to explore how presence to these traits (assessed dimensionally) create vulnerability for other problem behaviors.

Co-morbidity between personality disorders and other mental health problems

Researchers working on PDs believe that, the introduction of “multi-axial nosological system” for diagnosis has led to increase the interest of researchers over the past three decades regarding co-morbidity between PDs and mental disorders. Two contradictory approaches have evolved over time. One suggests that there exists a great degree of overlap between PDs and other mental health problems Moreover, there is little empirical evidence to suggest that these two are separate. PDs and mental disorders have a heritable component that leads to its enduring or stable nature. This inherent susceptibility alters the mental state related to environmental stress in both cases. There are also

evidences for gene environment interaction that occurs in both PD and other mental disorders (Newton-Howes, Mulder, & Tyrer, 2015).

Another group of researchers believe that clustering mental disorder and PDs together might lead to problems. As PDs are based on traits of individuals which are likely to be enduring (relatively permanent) and lead to significant social and functional impairment whereas mental disorders are manifestations that have a clear onset and end. PDs are based upon the patterns of personality that are evident as early as 3 years of life and remain consistent through adolescence and adulthood (Tyrer, 2018). So, with in this context, personality needs to be understood in terms of “diathesis” that either makes an individual more vulnerable to develop mental disorders or can alter the clinical course of mental disorder. Researchers with this perspective claim that they must not be considered same constructs. This understanding has been empirically supported by researches that have been conducted on individuals with mental disorder only and individuals with mental disorder comorbid with PD. Both prognosis and outcome for the comorbid PD group has been poor (Tyrer, 2015). Based upon this, results of few empirical researches have been summarized below:

Empirical evidence aiming at establishing prevalence of histrionic PDs across other Axis I disorder indicated that among 384 patients with major depression only 5 (1.3 %) had histrionic PD. Among 180 patients with generalized anxiety disorder only 1 (0.6%) had histrionic PD. Whereas among 142 patients with panic disorder only 1 (0.7%) had histrionic PD. Among 239 patients with social phobia 4 (1.7%) had histrionic PD. Among 92 with PTSD, 1 (1.1%) and among 85 alcohol disorder only 2 (2.4%) had histrionic PD (Zimmerman at al., 2005).

A research conducted on psychiatric outpatients found prevalence of narcissistic PD to be 2.3 %. Among 384 patients with diagnostic label of depression 7 (1.8%) patients had comorbid narcissistic PD. Among 180 with diagnostic label of generalized anxiety disorder 4 (2.2%) has narcissistic PD. Among 142 with diagnostic label of panic disorder 4 (2.8%) had narcissistic PD. Among 239 with social phobia 4 (1.7%) had narcissistic PD. Among 92 with PTSD 3 (3.3 %) had narcissistic PD. Among 85 with alcohol disorders 5 (5.9%) had narcissistic PD (Zimmerman et al., 2005).

For recording comorbidity between ASPD and other mental health disorders, a study found that among 384 patients diagnosed with depression 11 (2.9 %) has ASPD. Among 180 with diagnostic label of generalized anxiety disorder 6 (3.3 %) had ASPD. Among 142 outpatients with panic disorder had 7 (4.9%) had ASPD. Among 239 with social phobia 12 (5.0%) had ASPD. Among 92 with PTSD 9 (9.8%) had ASPD. Among 85 with alcohol disorders 9 (10.6%) had ASPD (Zimmerman et al., 2005)

For documenting comorbidity between BPD and other mental health problems the study found that among 384 patients diagnosed with depression 47 (12.2 %) had BPD. Among 180 with diagnostic label of generalized anxiety disorder 20 (11.1 %) had BPD. Among 142 outpatients with panic disorder had 24 (16.9%) had BPD. Among 239 with social phobia 44 (18.4 %) had BPD. Among 92 with PTSD 24 (26.1 %) had BPD. Among 85 with alcohol disorders 15 (17.6%) had BPD (Zimmerman et al., 2005).

For documenting comorbidity between OCPD and other mental health problems the study found that among 384 patients diagnosed with depression 33 (8.6 %) had OCPD. Among 180 with diagnostic label of generalized anxiety disorder 29 (16.1 %) had OCPD. Among 142 outpatients with panic disorder had 19 (13.4 %) had OCPD. Among 239 with social phobia 32 (13.4 %) had OCPD. Among 92 with PTSD 10 (10.9 %) had OCPD. Among 85 with alcohol disorders 5 (5.9 %) had OCPD (Zimmerman et al., 2005).

For documenting comorbidity between DPD and other mental health problems the study found that among 384 patients diagnosed with depression 11 (2.9 %) had DPD. Among 180 with diagnostic label of generalized anxiety disorder 6 (3.3 %) had DPD. Among 142 outpatients with panic disorder had 4 (2.8 %) had DPD. Among 239 with social phobia 4 (1.7 %) had DPD. Among 92 with PTSD 2 (2.2 %) had DPD. Among 85 with alcohol disorders 3 (3.5 %) had DPD (Zimmerman et al., 2005).

For documenting comorbidity between APD and other mental health problems the study found that among 384 patients diagnosed with depression 78 (20.3 %) had APD. Among 180 with diagnostic label of generalized anxiety disorder 47 (26.1 %) had APD. Among 142 outpatients with panic disorder had 31 (21.8 %) had APD. Among 239 with social phobia 108 (41.2 %) had APD. Among 92 with PTSD 24 (26.1 %) had APD. Among 85 with alcohol disorders 9 (10.6 %) had APD (Zimmerman et al., 2005).

Dollen-Sewell, Kreuger, and Shea (2001) have proposed that between 66 to 96% of patients having PD have mental illness as well. Similarly, 18 to 81 % of people having mental illness have personality disorder as well. The presence of one personality disorder at times increases the risk for presence of another personality disorder as well. The table below summarizes findings from different empirical researches regarding relationship between PDs and other mental health problems.

Table 1

Relationship between Personality Disorders and Other Mental Health Illness

Clusters	Underlying Feature	Mental Illness	Research References
Cluster A – Paranoid, Schizoid & Schizotypal	Odd and Eccentric	Psychotic issues, Schizophrenia, thought problems, attention problems	Kendler, McGuire, Gruenberg, and Walsh (1995).
Cluster B- Borderline, Narcissistic	Antisocial, Dramatic, Emotional, and Erratic	Substance Abuse, PTSD, attention problems	Grant et al. (2004). Rounsaville et al. (1998)
Cluster C – Avoidant, Dependent and Compulsive Disorder	Anxious and Fearful	and Phobia, GAD, Psycho-somatic disorders, Eating related disorders	Shea and Yen (2003). Tyrer, Seivewright, Ferguson, and Tyrer (1992).

To conclude, it is important to understand that both PDs and mental health problems are closely related. Further much research on personality pathology is focusing on relationship between PDs and other categorical DSM based disorders. However, like PDs many questions are being raised regarding accurate assessment of diagnostic models of psychopathologies. An alternative that is being proposed is the model of empirically based assessment procedures (Achenbach & Rescorla, 2003). It is important to further test this relationship for emerging models of other psychopathologies that are empirically driven. It is central to note that lack of understanding of role PDs in other problem is not only

limited to Pakistan. Rather, it is prevalent in other parts of the world as well. So, the present research would contribute not only with reference to Pakistani, but it will add to overall understanding of the way both are being conceptualized internationally. So, the findings of present research can be helpful for expanding the knowledge regarding empirical assessment with reference to global literature.

Models of association between personality and psychopathology

Before moving further towards interrelationships between PDs and other mental health problem it's important to reflect on theoretical underpinnings that explain the reasons of association between two. This part of introduction summarizes theories that provide a probable reason of why and how PDs and other mental health problems are related to one another. Review of empirical literature indicates that relationship between personality and psychopathy can be explained in three possible ways. The first named patho-plastic approach emphasizes that both personality and psychopathology can influence each other. The second approach of spectrum relationship focuses on shared and common etiological factors that contribute to development of disordered personality and other forms of psychopathology. Finally, the third and emerging approach known as causal effect focuses that there exists a causal relationship between these two i.e., one influencing the development of other. All these approaches have been summarized below briefly.

Patho-plastic relationship

Pathoplastic relationship focuses of bidirectional relationship between personality and psychopathology. Pre-morbid personality influences the appearance of later psychopathology, similarly co-morbid psychopathology can alter personality as well (Widiger, 2011).

Pathoplastic effects of personality on psychopathology. Personality comprises of thinking patterns, feelings and behaviors that have a defining role in determining the way an individual relates with other people. Mental disorders on the other hand involve significant impairments in areas of adaptive functioning that can include relationships with friends, family at work. An underlying dysfunction in thinking pattern, feeling and behavior i.e., personality can greatly influence later psychopathologies. Much work in this domain has been carried out within the framework of Five Factor Model (FFM) of

Personality (Widiger, 2011). Earlier researchers have explored and established the predictive role of FFM in personality disorders. Where individuals scoring high on traits like neuroticism are likely to develop cluster C personality disorders (Hassan, 2012). But the relation of these disorders with other psychopathologies needs further exploration.

Explaining this, researchers have found that there exists a strong relationship between trait of neuroticism and eating disorder for instance individuals scoring high on neuroticism are likely to develop problems like eating disorders. Similarly, another well-established relationship exists between conscientiousness, eating disorders and impulsive behaviors. Those scoring high on conscientiousness, tend to be overly disciplined and are likely to develop anorexia. In contrast those scoring low are likely to be impulsive and get involved in binge eating followed by bulimia (Cassin & Ranson, 2005; Widiger, 2011).

Pathoplastic effect of psychopathology on personality. Clinicians usually assess personality at the time of initial intake of patient. Researchers usually highlight that this practice needs serious consideration as patients at the time of intake are usually disturbed, anxious and depressed therefore they cannot accurately explain their thinking patterns and behaviors. This is further supported the notion, that once the primary features of pathology get better, the descriptions of personality provided earlier also change (Widiger, 2011).

Findings from empirical work of Collaborative Longitudinal Study of Personality Disorders (CLPS) indicated that 14 % patients who met the criteria for BPD at the time of intake showed significant betterment having no more than two symptoms just within the first six months. Though the findings have been questioned a lot to the extent of inaccurate assessment of emotional distress at the level of intake (Gunderson, 2003). But what makes assessment of PDs important at the time of intake of patients is the compelling evidence that accurate assessment of these maladaptive traits is essential as they have the tendency to impact treatment outcomes if left unassessed (Tyrrer, 2018).

Spectrum Relationships

Spectrum relation questions the notion of recognizing PDs and other forms of psychopathologies as distinct entity. This theory explains their relationship in terms of co-existence along a common spectrum of functioning. Explaining this further, it considers

PDs as manifestation of personality traits which tend to be maladaptive. It also considers some PDs to have an earlier onset apparent in the form of chronic variation of another mental disorder (Widiger, 2011). This approach focuses PDs as a spectrum with personality and PDs on spectrum with other mental disorders. Both are briefly summarized below:

Personality disorders on a spectrum with personality. This approach takes in to account the relationship between personality traits and PDs mostly relying on FFM. The maladaptive variants of personality traits significantly affect PDs. OCPD for example is considered a maladaptive variant of conscientiousness. Features of order, striving for achievement, dutifulness, competence, and deliberation are defining features of conscientiousness. The maladaptive variation of this is apparent in form of excessive detailing, following rules and details, excessive devotion towards work and perfectionism (O' Connor, 2007; Widiger; 2011). This also supports the notion of assessing PDs following a dimensional model as they are maladaptive variants of normal personality traits (Krueger & Tackett, 2003).

Personality disorder on a spectrum with other mental disorders. This approach led to abandonment of classification of personality disorders and resulted in subsuming of PDs along with other mental disorder diagnosis for DSM V (First et al., 2002). It resulted in major changings including but not limited to considering schizotypal disorder on spectrum of schizophrenia keeping into account the shared neurobiological factors in both cases. Similarly, a higher degree of overlap has been documented between social phobia and avoidant personality disorder. OCPD is also being reconsidered in framework of OCD and ASPD into variant of adult disruptive disorder. BPD is also being considered in context of mood dysregulations. As narcissistic, histrionic, and dependent PDs were not well integrated with other mental disorders so these were slated for deletion in DSM V. Though researches repeatedly provide compelling evidence of these as valid constructs.

These all-potential changes have serious consequences challenging this approach once again. This reconceptualization of PDs along with other axis I disorders, is causing potential neglect of PDs as maladaptive personality variant leading to under assessment of PDs posing a serious threat to ways mental health problems are being treated (Tyrer, 2018;

Widiger, 2011). Empirical evidences provide a very strong evidence that maladaptive personality variants are not in form of isolated traits limited to one disorder or category rather they tend to in the form of constellation of maladaptive traits that can be from one PD or multiple PDs as well because of high degree of comorbidity. Labeling these problematic behaviors as anxiety, depression or schizophrenia would not serve the purpose rather it would make the treatment process ineffective. Even PDs that share similar etiological factors with other mental disorders does not indicate that they are same, so it becomes crucial to identify PD as distinct entity. Though schizotypal personality disorder is classified together with schizophrenia in the new system, but it consistently has shown stronger co-morbidity with other personality disorders rather than psychotic disorders. In addition to these people with schizotypal personality disorder don't develop schizophrenia in most of cases. All these trends pose a serious challenge to new classification system of PDs (Widiger, 2011).

Etiological (Causal) relationships

Researchers with an interest to study personality, personality disorder and psychopathology are interested in understanding etiological relationship between these. Evidences indicate that a bidirectional relationship exist, where PDs can influence other psychopathologies and vice versa (Wdiger, 2011).

Causal effect of psychopathology on personality. Psychopathology can alter personality by altering the way in which individual thinks, feels and behaves. Explaining this further, researches argue that having a psychopathology like psychosis and major depression can alter the personality and lead to PDs like dependent or schizotypal personality disorders. The impact of psychopathology can be seen as a “scar” on personality often referred to as personality change secondary to exposure of psychopathology. Though International Classification of Disease (ICD), considers the scar effect of psychopathology but no such system is available in case of DSM (Widiger, 2011).

Casual effect of personality on psychopathology. Most of emerging models highlight the importance of vulnerability factors. Pre-morbid personality is considered to create vulnerability to stress making an individual more prone to develop psychopathology. One of the well-researched facets of personality in this neuroticism. Empirical evidence

indicates that it positively predicts eating disorders, mood disorders, anxiety, and other forms of psychopathology as well. This acts as “diathesis” or “stress”, increasing the likelihood of both reactive and evocative interaction between person and environment. Reactive reactions include experiencing high levels of distress that ultimately leads to development of psychopathology. Evocative interaction occurs when this distress leads to significant disruption in interpersonal relationships, financial situations and contribute to poor decision making. Similarly, dependent personality traits also have a significant role in onset of depression. Again, this can be reactive where these dependent traits lead to significant insecurities and distress. It can be evocative when exhibition of these traits leads to rejection and avoidance by others. Despite of increasing realization of dependent personality disorder playing a key role in onset of depression it’s slated for deletion in DSM 5 (Skodol et al., 2011; Widiger, 2011).

Personality Diathesis: a superior explanation than disorder

Three decades of extensive research on personality pathology have led researchers to conclusion that PDs exhibit themselves in form of traits that manifest themselves early in childhood and remain consistent during adolescents and adulthood. An alternative explanation to this view, explains that these problematic traits are diathesis often referred to as “vulnerability”. These make an individual more prone to develop other psychological disorders or abnormal behaviors. The diathesis model proposes that diathesis not only makes one more prone to develop problems but also increase the intensity of the problems along with increasing the chances of reoccurrence of these disorders. Thus, this diathesis or vulnerability factor is activated under any stressful situation and further precipitates other psychological disorders. This vulnerability can be attributed to both genetic and environmental factors. Further there can be an interaction between these too. Once these vulnerability factors are there, they have the power to change the course of illness and are important to be diagnosed as they lay a crucial role in onset and maintenance of other psychological problems (Caspi et al., 2014; Tyrer, 2007).

The diathesis model of PD needs to be understood in terms of issues regarding temporal stability. PDs overtime have shown little temporal stability (Clark & Harrison, 2001; Zimmerman, 1994). This temporal instability questions the notion of PD as

“pervasive” or “ingrained” part of personality. Initially this instability has been attributed to inaccuracy of instruments used for assessment (Loranger et al., 1991). Overtime, this notion has changed. CLPS concluded that patients receiving treatment for four personality disorders i.e., BPD, OCPD, APD, and schizotypal personality disorder showed consistent improvement over a period of five years. Additionally, fewer than half met the criteria for PDs in next two years (Shea & Yen, 2003). This lack of categorical diagnosis has also been documented by many other researches (Seivewright, Salkovskis, & Green, 2004).

Diathesis model also elaborates this temporal instability. Expression of disorder might be hidden initially, but it is manifested in the form of psychological problem which might be triggered because of a distressing situation in life. During treatment, they show an improvement which can be regarded as regression towards mean. Over the course of treatment there can be an improvement because there can be changes in the external environment that is acting a precipitating factor. When environmental adjustment is better, personality problems would be exhibited in much lesser forms. But this does not assure that problems would not reappear as they are closely tied to environmental factors (Tyrer et al., 2003). Despite of improvements in terms of behavior, the social dysfunction associated with PDs continue (Skodol et al., 2005). Despite of the fact that personality functioning improves with treatment, but “vulnerability” remains there. This notion of personality diathesis is not new. It has been recognized earlier as well in terms of “personality accentuation” as proposed by Leonhard and “stress induced personality disorder” as proposed by Reich (as cited in Tyrer, 2007). This diathesis is not limited to selected situations of life but is pervasive.

Empirically based taxonomies

DSM V focuses on the fact that its time now to move from narrow categorical classification categories of disorders to larger groupings. This also advocates a paradigm shift from validating individual diagnostic criteria’s to designing and validation of comprehensive tools for accurate assessment of broader categories of disorders (Achenbach, 2006). DSM’s task force endorsement of moving towards internalizing and externalizing behavioral problems reflects value this system can add into clinical practice and research. As per DSM V task force “clustering of disorders according to what has been

termed internalizing and externalizing factors represents an empirically supported framework. Within both the internalizing group (representing disorders with prominent anxiety, depressive, and somatic symptoms) and the externalizing group (representing disorders with prominent impulsive, disruptive conduct, and substance use symptoms), the sharing of genetic and environmental risk factors, as shown by twin studies, likely explains much of the systematic comorbidities” (American Psychiatric Association, 2013, p. 131).

Insel et al. (2010) has also proposed an alternate model to traditional categorical models of mental health problems referred to as “Research Domain Criteria” (RDoC). RDoC is working with an objective to design dimensional tools for assessment of all forms of psychopathology keeping in view both the neurobiological and behavioral aspects of previous diagnostic labels. It also aims to develop an understanding of core common factors that lead to high comorbidity among psychopathologies.

The term externalizing and internalizing behavioral problems are widely being used to describe two broader groupings of behavioral, emotional, and social problems (Achenbach et al., 2016). One of the empirically driven models derived based on statistical approaches is Adult Self Report (ASR) for assessment of adult Psychopathology for adults between the ages of 18-59 (Achenbach & Rescorla, 2003; Wittenborn, 1951). The approach of grouping mental health problems based upon manifestation and nature of problems in to two broad band categories that include externalizing and internalizing behavioral problems has been adopted by many researchers (Kotov, Ruggero, Krueger, Watson, Yuan, & Zimmerman, 2011). The pattern inherent to both problems is marked deviation from socially acceptable behaviors. Externalizing behavioral problems include negative behavior that is directed outwards and may include problems like defiance, anger, impulsivity, and hyperactivity. Internalizing behavioral problems in contrast include behaviors such as somatic problems, withdrawal, depression, and anxiety (Achenbach & Edelbrock, 1978). Though these terms are more commonly used to refer to child’s problematic behavior, but these patterns are apparent in adult psychopathology as well (Bauermeister, So, Jensen, Krispin, & El Din, 2006).

Much research on understanding of adult psychopathology has been done on traditional diagnostic categorical systems. Empirically based taxonomies have not been

extensively explored with adults. Meta-analytical researches are indicating that even the work with empirically based taxonomies on children has certain limitations. Most of the studies have not reported the psychometric properties and validation procedures used for empirically based tools (Achenbach et al., 2016). Other than this, despite of strong empirical evidence that there exists a positive relation between the two broader categories i.e., externalizing, and internalizing domains, researchers have solely focused on one domain either internalizing or externalizing. A meta-analytical review of 693 studies indicated that 500 studies (72.2%) reported data for both internalizing and externalizing problems. Data were reported only for internalizing problems in 55 studies (7.9%) and only for externalizing problems in 138 studies (19.9%). Data were reported for narrow-band scales as well as for broad-band internalizing/externalizing scales in 104 studies (15.0%). They have not considered both simultaneously. Within these broader labels even, the narrow band scales have been ignored. Thought and attention problem have not been given much emphasis (Achenbach et al., 2016). So, the present research aims to fill in the gap by focusing on both broad band scales and narrow band scales for assessment of psychopathology.

The similar argument of assessing both problem behaviors for same individual rather than restricting it to one applies to narrow band scales (problem behaviors) as well. Though with the introduction of DSM, there has been a boost in researchers following the listed diagnostic criteria on single disorder, yet this explicit classification has grossly ignored other mental health conditions associated with disorder (Achenbach et al., 2016). Even DSM V is acknowledging this prime limitation, yet the process continues. As per DSM V task force.

“The one plausible goal of identifying homogeneous populations for treatment and research resulted in narrow diagnostic categories that did not capture clinical reality, symptom heterogeneity within disorders, and significant sharing of symptoms across multiple disorders. The historical aspiration of achieving diagnostic homogeneity by progressive subtyping within disorder categories no longer is sensible (American Psychiatric Association; APA, 2013, pp. 12).”

Taking this system of broader classification, a step further DSM V acknowledges the limitation that all possible combinations of disorders and pattern of comorbidity cannot be considered yet grouping them together can help to understand and address comorbid patterns more clearly and thus can aid in designing better intervention plans. This system works more efficiently in comparison to prevalent categorical system. Further compelling empirical findings are furnishing evidence that that these systems consider elements which prior systems are not considering (Achenbach et al., 2016).

Empirical evidences are indicating that utility and effectiveness of this system is not limited to broad band scales of internalizing and externalizing behavioral problems rather it is equally applicable to narrow band scales. Differences need to be explored across these narrow band scales as well, it might provide a more valuable and comprehensive picture of problem behaviors. For instance, comparison across two narrow band scales, aggressive behaviors (frequent fights, and threatening others) and rule breaking behaviors (stealing and lying) that lie under the category of externalizing behavior can yet yield unique information regarding way behaviors are expressed. Similarly thought and attention problems (prevalent in schizophrenia and spectrum disorders) have remained unexplored (Achenbach et al., 2016). The present research tries to cater these ignored narrow band scales as well in addition to the broad band scales.

To conclude, it is imperative to understand that the practice of relying on categorical diagnosis is not going to yield impressive results regarding intervention and treatment in near future as well (Achenbach & Rescorla, 2001). Moving towards well established systems that have items at the base which are systematically grouped to get scores across narrow band scales and further grouping these to broad band scales and ultimately getting a score for general psychopathology can aid in looking at the problem from a broader perspective and will help to design better treatment and intervention plans. With reference to Pakistan, the trend of relying on traditional categorical system is more prevalent that is hindering the process of assessment. In addition to this, instruments (in Urdu language) that are based on empirical assessment are also not available. Therefore, clinicians are not familiar nor trained on these systems. To the best of researchers' knowledge this research is first of its kind to translate, adapt and test the empirically driven system for Pakistani society for adults.

A paradigm shift towards validation of empirically based tools across societies.

As established earlier in this section, the trend of using empirically based instruments is new for Pakistan. The most prevalent clinical practice is relying on unstructured interviews. Interviews have been extensively used for diagnosis by clinicians in psychopathology research. Now there is a paradigm shift towards use of standardized instruments and rating scales for making comparison across societies easy. A trend towards translation and adaption of tools and development of tools of international equivalence in on the rise. Some of the methods proposed by theorist for development of tools of international equivalence are summarized below.

Geisinger (1994) proposed that “substantial evidence of the comparability” of translated or adapted instrument across original instrument is significant for conducting assessment across different societies. Poortinga (1989) highlighted indicators such as factor structure, correlations among scales and item difficulty to consider for cross-national comparisons. Differences across cultures cannot be traced if instruments are used invariantly across cultures. Van de Vijver and Poortinga (1997) differentiated between “spurious cultural differences” and “valid group differences” while working on translated and adapted instruments. Spurious cultural differences are expected due to bias in instrument whereas valid group differences are referred to as impact. Furthermore, method bias and item bias need to be given special consideration in cross-cultural studies. As some formats or items are more likely to be endorsed either positively or negatively in one culture as compared to other. Item bias or differential item functioning includes relation between item scores and total scores varying across different cultures. So, it becomes extremely important to test assessment tools across different cultures. Considering this, Ivanova et al. (2014), tested Adult Self Report for assessment of adult psychopathology across 29 different societies. Similarly, for gathering information regarding collateral reports using Adult Behavior Checklist, Ivanova et al. (2015), tested the factor structure across 18 societies. With this research an attempt is being made to adopt similar procedures and test the factor structure of both ASR and ABCL for Pakistani society.

Butcher and Han (1996) proposed method of conducting Confirmatory Factor Analysis (CFA). This can help in testing whether individual items are performing similarly

or differently across cultures. They further proposed methods of comparing and correlating scale scores. Leung and Bond (1989) proposed the method in which cumulative means are calculated for variables/scores for societies and later individual correlation is computed for variable or score of one society with overall Cumulative mean. Byrne and Campbell (1999) highlighted that even if factor structures are same across societies still skewness, kurtosis and response frequencies may vary.

Empirical researches testing eight syndrome model: Structure of ASR and Testing the Eight-Syndrome Model across Societies

Adult Self Report (Achenbach & Rescorla, 2003) is a standardized instrument that is used worldwide to assess adaptive functioning and problem behaviors of individuals between the ages of 18 to 59 years. In terms of adaptive functioning, it provides information related to relationship with friends, spouse, performance at work, and education setting. It also considers any disability or physical handicap and its nature. It also takes in to account any financial, educational, or family related concern faced by the individual. It caters perception of individual about him/herself by probing about the positive qualities if individual has any (Achenbach, 2009).

Both Adult Self Report (ASR) and Adult Behavior Checklist comprise of eight narrow band scales which include anxious depressed, withdrawn, somatic complaints, attention problems, thought problems, aggressive behavior problems, rule breaking and intrusive problems. Three of these narrow band scales (anxious depressed, withdrawn, and somatic complaints) are summed together to get a broad band scale of internalizing behavioral problem. Similarly, the last three scales (aggressive behavior problems, rule breaking, and intrusive problems) are summed together to get broad band scales of externalizing behavioral problems. All the narrow band problem scales are summed together to obtain total problem score for both ASR and ABCL respectively (Achenbach, 2009).

Various multi-dimensional studies have been conducted using ASR to test the eight-syndrome model. One such study was conducted by Ivanova et al. (2015) across 29 societies and findings indicated that in all societies the eight-syndrome model proposed originally for the United States was confirmed. The primary fit indices showed a good

model fit and secondary indices were also in acceptable range. This study laid the foundation for testing and conforming eight syndrome model in other societies as well. Ivanova's study was taken a step further by Rescorla et al. (2016) in refining the criteria further and limiting the analysis to seventeen societies, further exploration was done. It included testing the internal consistencies of ASR scales, determining the prevalence rate of specific problems like suicide, and testing the influence of society, age, and gender on syndrome scales. Results indicated consistency in mean scores on items of ASR across societies.

It is imperative to consider that much work on internalizing and externalizing behavioral problems in Pakistan has been done with of children and adolescents. They have been collectively referred to as Emotional and Behavioral Problems (EBP). These issues have been considered important for them, as it has been established that these concerns have lasting consequences on an individual's life that includes areas like academic performance, ability to learn, issues related to substance use, likelihood to get involved in violent behaviors and ultimately affect the social relationships. With reference to children and adolescents, it has been established that that these problematic behaviors have different manifestations at different age groups. Elaborating it further researchers argue that a contradiction between an individual's wishes or desires and societal demands could lead to a state of distress. In toddlers it might be expressed in the form of difficult behavior, whereas in preschoolers it might be expressed in the form of oppositional behavior, the problem gets severe at late school age and is likely to be exhibited in the form of conduct disorder (Nunes et al., 2013).

Later, in adulthood these problematic behaviors are exhibited in the form of criminal activities referred to as delinquency. If not given proper attention in adulthood it might increase the likelihood of getting involved in substance abuse. From this, it can be inferred those problematic behaviors follow a longitudinal pattern and severity increase at each successive stage if not treated properly. However, the manifestation of these problematic behaviors in early adulthood and late adulthood might be different. Therefore, there exists a paucity of literature regarding patterns of occurrence of these problematic behaviors in adulthood. Taking this into account the present research aims to establish the prevalence of these problem behaviors across different demographic variables including

age, gender, and education. Moreover, this research also explores problem behaviors across both clinical and non-clinical samples as well with an objective to explore differences and similarities across these socio-demographic variables.

Understanding cross informant correlations for psychopathology

For accurate true for accurate assessment of mental illness, data can be obtained from multiple respondents and information can be compared to develop better understanding of problematic behavior across different situations (Achenbach, 2006).

Interviews have been widely used in clinical setting for assessment of problematic behaviors. With the introduction of Diagnostic and Statistical Manual of Mental disorders (DSM; American Psychiatric Association, APA, 1980) explicit criteria was defined for diagnosis of a particular disorder. Clinicians modified the interviews and brought more structure to it considering criteria defined by DSM. So, the concept of conducting structured interview was introduced. Such interviews are referred to as respondent-based interviews. This practice has since then been used with adults for assessment of problematic behavior. When this procedure was applied on children, several problems were observed. There was a difference in presentation of symptoms between different individuals (parents, teacher, and children). Keeping in mind the emerging discrepancies clinicians started questioning the consistency of reports obtained for adults as well (Achenbach, 2006).

Correlation between different Informant reports for Problem behaviors

The extensive review of literature indicates scarcity of available researchers in the field of adult psychopathology having employed the method of multi-informant data or collateral reports (Achenbach, 2006).

Achenbach, Kurkowski, Dumenci, and Ivanova (2005) found that correlations between ASR and collateral reports were found to be .44 for externalizing behavioral problems and .43 for internalizing behavioral problems. Across instruments (whose items differed), measuring similar kind of psychopathology the cross-information correlation was .30. Furthermore, the average cross-informant correlation for reports obtained from collaterals was .27.

Rettew, Lynch, Achenbach, Sumenci, and Ivanova (2009), found that correlation between DSM criteria for diagnosis and structured interviews conducted by clinicians yielded an average agreement of 29% for adults. For children it was further reduced to 15 %. Meyer et al. (2001) found that setting DSM criteria the agreement between adult self-report and informant report was found to be 12 % only. These low figures further raised question about the use of self-report as sole measure of pathology along with interpretation of discrepancies appearing in collateral reports.

Getting information from collaterals rises certain questions. How information can be obtained from collaterals. How many reports from collaterals need to be generated? Where and how data should be obtained from collaterals. Furthermore, how many collaterals would practically agree to provide data? Empirical evidence indicates that getting information from collateral is a feasible and an effective alternative. Achenbach, Newhouse, and Rescorla (2004) and Achenbach and Rescorla (2007) found in a survey conducted following random sampling and using measures of Adult Self Report (ASR) that 94 % Collaterals agreed to fill in the collateral report. Similarly, for older version of same test 90 % collaterals agreed to fill in the corresponding collateral report.

An added advantage of ASEBA is that graphical representation of data can make comparison on each subscale easier and can highlight the discrepancy obtained between both self-report, collateral report, and across different collateral reports as well. Probing these differences can add to better understanding of the problem. Further research is needed to elaborate and understand models for using and interpreting information obtained via multiple informants (Achenbach, 2006).

In addition to developing an understanding of PDs, issues related to assessment of PDs, and other problem behaviors it is equally important to develop an understanding of variables that can potentially affect the relationship between PDs and problem behavior. Next section of introduction provides details of variables that have potential to affect the relationship between two.

Moderating role of gender, age and adaptive functioning in personality pathology, internalizing and externalizing behavioral problems

It has been established in earlier parts of this chapter that presence of PDs is likely to create a vulnerability for other forms of psychopathologies or problem behaviors. Within this context it becomes important to establish the role of factors that can possibly affect this relationship. Some of the key factors across which differences are apparent include gender, age, and adaptive functioning. This part of introduction aims to establish how these variables can possibly affect the relationship between PDs and problem behaviors across broad band scales (externalizing and internalizing problems) and narrow band scales.

Empirical findings have reported inconsistent evidences regarding prevalence of personality pathology across age and gender which is highly dependent on study settings and sample characteristics (Holthausen & Habel, 2018; Lynam & Widiger, 2007). But researches agree on the fact that both these are important variables with reference to PDs (Coid et al., 2006). Many researchers conducted on clinical sample have found personality disorders to be more prevalent among males in comparison to females (Gawda & Czubak, 2017; Samuels et al., 2002). Similarly, for syndrome-based scales, across broad band scales researchers have been consistent that internalizing disorders tend to be more prevalent among females whereas externalizing disorders are more prevalent among females. For narrow band scales as well, similar differences have been recorded (Maschi, Morgen, Bradley, & Hatcher, 2008).

Different plausible explanations have been given for these differences both at cluster level in case of PDs and broad band scales in case of ASEBA. Mostly high prevalence of PDs in cluster A among males is often attributed to exhibition of strong aggressive behaviors paired with it (Torgersen et al., 2001). Similar reasons are given for high prevalence of externalizing behavior problems among males. So, keeping in mind these differences, it can be inferred that relationship between cluster A and externalizing behavioral problems would be stronger in case of males in comparison to females. Keeping this in view, another objective of present study is to test the moderating role of gender in relationship between PDs and problem behaviors. From Cluster B, BPD is found to be more prevalent in females while ASPD and narcissistic PD have been found to be more

prevalent among males (Holthausen & Habe, 2018). Few researches have also established non-significant gender differences across BPD and find it to be equally prevalent among males and females (Silberschmidt, Lee, Zanarini, & Schulz, 2015). So, it becomes important to test this the moderating role of gender for cluster B and problem behavior. For cluster C, few researchers associate it with females as elements of anxiety and fearfulness forming the core characteristics of this cluster are considered to be more associated with females (Coid et al., 2006). But than a growing body of literature has focused that cluster C is present among males and females, yet females are more likely to seek treatment for this problem (Holthausen & Habe, 2018). Across community samples (non-clinical samples) non-significant differences have been reported across gender for all PDs except for anti-social PD which is more prevalent among males (Coid et al., 2006). Similarly, this comparison across clinical and non-clinical samples can be a significant contribution as it can help to establish that across different samples for sample variables whether impact of these variables i.e., age and gender remains same or is there any difference.

Across age, group of researchers are of the opinion that as PDs refer to patterns of behaviors that are relatively enduring, so they tend to remain consistent across age (Cohen et al., 2005). Though presence of PDs might alter the course of other illnesses over a period, so it is important to study the moderating role of age in relation between PDs and other problem behaviors. As for ASEBA's broad band scales, internalizing behavioral problems tend to show an increase with age whereas externalizing behavioral problems tend to decline with age (Chan, Dennis, & Funk, 2008). Few researchers have documented that cluster B disorders tend to show a decline with increase in age, whereas cluster C disorders tend to show an increase with increase in age (Coid et al., 2006; Oltmanns & Balsis, 2011). So, it becomes important to study how both gender and age, effect the relationship between PDs and other psychopathologies associated with it.

One of the key areas that needs to be assessed along with PDs is the extent of severity is the area of adaptive functioning (Chanen, Jovev, Jackson, 2007). As PDs have been strongly and consistently linked with functional impairments in terms of relationship with friends, spouse, academic functioning, family functioning and relations with co-workers (Coid et al., 2007). Based upon this it can be hypothesized that poor adaptive functioning is likely to make the relation between PDs and other pathologies stronger.

Thus, adaptive functioning is likely to buffer the relationship between PDs and other psychopathologies with relation being strongest at level of low levels of adaptive functioning.

Keeping in view crucial role of age, gender, and adaptive functioning in consideration the study aims to test the moderating role of these variables across PDs and other psychopathologies for both clinical and non-clinical sample.

Before establishing the relationship of the above-mentioned variables with in Pakistani context, it's important to develop a basic understanding of dynamics of Pakistani society and culture. Reviewing the mental health system of Pakistan can be beneficial as it can help in establishing why PDs remains a challenging area of research. Moreover, it will be also helpful in understanding research gap where still in clinical practice categorical diagnosis are given preference. The next part of introduction summarizes the importance of personality disorders and need to shift towards empirically based system for Pakistani society.

Mental Health in Pakistan

Pakistan is in South East Asia with a population over 140.7 million. Around 70 % of the population reside in rural area. Presently its sixth most populous country and this estimated that by 2050 it would be fourth most populous country (Ahmed, Enam, Iqbal, Murtaza, & Bashir, 2016). Several factors including poverty, poor economic conditions, natural and manmade disasters, insecure neighborhoods, poor organization of institutions and adverse life events have closely linked to rise in problematic behaviors among adolescents and adults However, paucity of literature exists in linking these events with mental health related outcomes.

With reference to population, overall male population is slightly higher than the female population. More than 64 % of the population comprises of young individuals between the ages of 18-35. Economic conditions of country are not good as 35 % of people are living below the poverty line. Rate of unemployment is 5.9 %. Most of individuals live in combined family system with average number of individuals residing being 6.5. Being an Islamic state, most of the people practice this religion. Within this context, mental illness is still considered as a stigma and people lack basic awareness about mental health

problems and its causes. Mostly people attribute mental illness to supernatural causes and consult traditional healers. Both mental health professionals' and traditional healers provide mental health services. Limited number of psychiatrists and psychologists are available for provision of mental health services. Under these circumstances' prevalence data regarding mental health problems is scarce (Karim at al., 2004).

Health care system of Pakistan comprises of primary and specialist care. A pyramid exists in primary care with health houses lying at the bottom serving 1000 people or 200 households. These are connected to Basic Health Units (BHU) which cater 15000 to 20000 people. Three to five BHUs are grouped together to formulate Rural Health Centre. Further, three to five of these are grouped to formulate Tehsil head quarter hospital which is further connected with district hospital. The teaching hospitals lie at the top of pyramid. A female member from community with at least one-year training serve at health house. BHU on the other hand comprises of one doctor, one female health visitor and 8 to 10 paramedic staff. Rural health care center on the other hand has three doctors, one dentist, two female health visitor, and 8 to 10 paramedic staff. Till this level no specialist psychiatric or psychological care is available. Proper diagnosis and treatment of psychiatric illness and associated psychological problems is completely missing which leads to poor handling of patients with mental health problems. At Tehsil level medical, surgical, dental, and gynecological specialists are available. They also have 10 medical officers, nurses and 30 paramedics. Specialized pediatric and psychiatric services are available at District level hospital. Psychologist and psychiatrists are available in all teaching hospitals, but they are in urban settings only. Child and forensic psychologists are not available at all with in these set ups (Karim at al., 2004).

Three mental asylums which are run by government are also there. In all, 2,154 psychiatric beds available in the general and teaching hospitals around the whole country. Another 943 beds are available in the three psychiatric hospitals. There is no demarcation or allocated beds marked for sub-specialties such as rehabilitation, substance abuse, child, and adolescent psychiatry, forensic or old-age psychiatry, or personality disorder. In all there are only 520 certified psychiatrists and 480 trained psychologists in Pakistan. To conclude, the health system of Pakistan is overburdened, and mental health facilities are only restricted to urban settings. Armed forces also provide mental health services in few

broader cities but due to geographical location, financial and cultural constraints largely these services remain inaccessible to rural population (Karim et al., 2004). Consequently, they either go to traditional healers or must consult health care professionals practicing in urban settings causing them financial constraints as well as adding disease burden. The data of present study has been collected from district hospitals and teaching hospitals.

Keeping the above-mentioned context in mind, the importance of conducting research on mental health problems in a country like Pakistan can be understood. There exists a gap between different stakeholders when it comes to assessing and treating mental health problems. Even psychiatrist and psychologists are not on the same page when it comes to assessment and treatment of mental health problems. There also exists huge gap between clinicians and researchers. Most of the tools that are being validated and used extensively in research are not being used by clinicians treating mental health problems. Diagnosis of mental health problems is mainly based on unstructured interviews and medicines are mostly prescribed for treatment. Under such conditions data regarding mortality, morbidity, and service use of the mentally ill is not readily available.

Though limited number of surveys conducted in 1996, 1997 and 2000 suggested that the prevalence of depression in the general population was 12.5%–53% (Mumford et al., 2000). In 1997, the prevalence of epilepsy was found to be 9–16 per 1,000. There are no data for other psychiatric conditions among general population. With reference to primary care units, presence of prevalence data regarding depression is the exception, with a prevalence of 17%–30% in primary care in 1995 and 1998. Records from secondary care indicate prevalence of schizophrenia to be 8.1 among males and 6.1 among females, manic depression to be 13.5 among males and 14.5 among females, depression to be 38.7 among males and 43.3 among females, substance misuse to be 12.6 among males and 0 among females and personality disorders to be 1.5 among males and 1.4 among females per 1000 individuals. The average days for hospitalization were 18.3, 18.94, 15.93, and 7.6 respectively. No data was available for average number of hospitalization days for personality disorders (Karim et al., 2004). Considering these findings, an overview has been given regarding some researches that have been conducted in Pakistan on PDs and other mental health problems.

Table 2

Review of Empirical Researches Conducted in Pakistan on PDs

Study and author	Sample	Sample Size	Prevalence /Finding	Sampling Criteria	Tools used	Psychometrics	Limitations
Batool and Khalily (2019)	Adults	1000	Maladaptive personality traits mediate between emotional maltreatment and Cluster B PD	Cross sectional study, convenience sampling	Dimensions of Emotional Maltreatment at Home, Personality Inventory for DSM V, Personality Diagnostic Questionnaire fourth edition	Not reported	Despite of large sample size, study has not reported psychometrics. Even prevalence of disorders has not been established though it employs a diagnostic tool of personality as well
Hanif, Kliewer, and Riaz (2018)	Males with substance use issue	300	Individuals high on traits of neuroticism had more relapse whereas individuals high on trait of conscientiousness scored higher on recovery	Purposive convenience sampling	Big Five Inventory (BFI)	.80 neuroticism, .82 conscientiousness	Only two subscales of personality were used whereas other facets showing strong relationship in empirical literature were ignored
Irfan et al. (2018)	Students appearing for medical entrance exams [Aug, 2015-May2016]	1334	Dependent .93%, Schizoid .62 %, anankastic .31%	Cross sectional study, convenience sampling	International Personality Disorder Examination (IPDE) screening questionnaire and interview	Screening .74, interview .87	Study was conducted only on one private sector medical college, no indices for validity were reported
Siddratulmuntaha, Hussain and Malik, (2018), Pakistan	Community sample from five major cities	3500	Paranoid 26 %, schizoid 23 %, Anti-social 11 %, Borderline 18 %, histrionic 14 %, narcissistic 17 %, Avoidant 25 %, Dependent 29 %	Convenience sampling	Checklist was devised as per criteria of DSM IV	not reported	Psychometrics were not reported, issue of comorbidity not addressed
But, Mahmood, and Saleem (2017)	15 diagnosed patients with BPD for scale development, testing with 81 diagnosed patients	15	Two subscales emerged labelled as mood liability and insecure dependence	Purposive sampling technique	Scale showed good concurrent validity with ZAN-BPDS, more over non-significant gender differences were observed on BPD	.73 & .86	Co-morbidity with other PDs was not ruled out during the development phase of initial interview. Even later categorical assessment was carried out not taking in to account co-morbidity with other mental health problems

Batool, Shehzadi, Riaz, and Riaz (2017)	University students	200	Permissive parenting had positive relationship with histrionic, narcissistic, and Anti-social PD whereas authoritarian parenting had positive relation with maladaptive schema and depressive PD	Convenience sampling	Personality Diagnostic Questionnaire, Permissive parenting style, Authoritarian parenting style, early maladaptive schemas	All scales had reliability greeter than .70 (Exact values not mentioned)	Research only focused on four PDs i.e., histrionic, narcissistic, anti-social and dependent PD. Other PDs which empirically exhibit strong relationship with these have been ignored. Researchers have mentioned translating Personality Diagnostic Questionnaire and using it first times with Pakistani sample, yet no details of validity evidence mentioned.
Anwar, Mahmood, and Hanif (2016)	University students	155	Not established, Findings indicated a that narcissism positively predicted aggression	Convenience sampling	Narcissistic Personality Inventory	alpha reliability .95	high co-morbidity has been observed between narcissism and other PDs which was ignored in present study
Komal, Rizwan, and Safdar (2014)	Drug addicts	50	Prevalence not established, Emotional abuse and neglect predicted schizoid PD among drug users, Sexual abuse and neglect predicted narcissistic PD	Purposive convenience sampling	Comprehensive Diagnostic Instrument for Personality Disorder, Child Abuse and Neglect Questionnaire,	alpha reliability .93 & .51	Sample size was too small to draw conclusive evidence, prevalence rates of PDs not established, Reliabilities of separate PDs not mentioned, even overall reliability was low (.51). Non-significant relationship was observed between abuse, neglect and BPD which has been established earlier in many empirical researches.
Sherdil and Kazmi (2016)	Criminals and Non-criminals	76 & 124	Criminals scored higher on psychopathy as compared to non-criminals, Males scored higher on psychopathy as compared to females	purposive convenience sampling	Psychopathy Scale (Urdu)	.90	Factor structure has not been tested across two samples as both distinct samples i.e. criminals and non-criminals were being compared. No details regarding scale development mentioned, no specific controls regarding type of crime, relation with anti-social and other PD was mentioned as they do have relationship with psychopathy.
Haider et al., (2014)	Psychiatric outpatient population	30	agreement for 1) emotionally unstable BPD 21 patients 2) Emotionally unstable impulsive type 18 patients 3) agreement for anankastic PD 16 patients	Purposive Sampling	IPDE based on ICD 10	Phi coefficients for interrater agreement rating from .31 to 1	Though translation was carried out but factor structure was not statistically tested, comorbidity was also not reported, sample size was too small for generalizability of findings

It is apparent from the empirical evidences cited above that in mental health the area of PDs is at budding stage. Despite of much debate prevailing regarding categorical and dimensional nature of PDs internationally (Trull & Widiger, 2013), In Pakistan there is lack of empirical evidence about prevalence data regarding personality disorders. Though few researchers have tested the role of personality traits in onset of mental disorders (Haasan, 2012; Hanif, Kliwer, & Riaz, 2018) but when and how these traits become maladaptive and turn in to PDs creating vulnerability for other mental health problems has been grossly ignored. Similarly, few researches aiming to study PDs have either focused on one PD ignoring others, which again is in contradiction with the fact that high degree of comorbidity exists within PDs as well. Most of the studies have employed the technique of convenience sampling and have been conducted on community sample. This again provides an evidence that with in clinical practice PDs are group of disorders that are highly neglected. Though it has been established that presence of PDs can alter the course of illness of other mental health disorders if not assessed and incorporated in treatment plans. When it comes to tools that have been used for assessment of PDs, it's apparent that most of the studies mentioned above have not provided adequate details regarding psychometric properties. Keeping all this in mind, research is needed to test existing instruments so that psychometric properties of these tools can be established, and prevalence of PDs can be estimated.

Table 3

Review of Researches Conducted in Pakistan Aiming to Understand other Mental Health Problems

Study and author	Sample	Sample size	Prevalence/Finding	Sampling Criteria	Tools	Psychometrics	Limitations
Siddratulmuntaha, Hussain, and Malik (2018)	Community sample from five major cities	3500	Depression 38%, anxiety 31 %, Stress 32 %, Adjustment 33 %, sleep 38 %, Eating 30 %, Memory 36%	Convenience sampling	Checklist was devised as per criteria of DSM IV	not reported	Psychometrics were not reported, issue of comorbidity not addressed
Mirza and Jenkins (2004)	Systematic review of published literature	20 studies reviewed (sample size ranged from 113-2620) M = 539.41	17 studies discussed prevalence, 11 discussed risk factors associated with anxiety and depression, mean prevalence of anxiety and depression in community sample was 34 %. For women it ranged from 29-66 % whereas for males it ranged from 10-33%. Risk factors included female sex, less education, poor spousal relationship, being homemaker and financial difficulties.	Systematic review of published literature - 19 epidemiological surveys and 1 case control	Multiple including interview schedules and checklists	Exact values not mentioned	As it was meta-synthesis so there was no uniformity in terms of tools used for assessment and methods used for data collection. So, generalizability of findings need consideration
Ali, Lalani, and Charania (2015)	15 urban communities of Karachi, were approached to improve mental health and psychiatric rehabilitation	4 case studies from 15 communities	Significant improvement was observed after community mental health interventions	Activities were planned in collaboration with a community-based organization- 4 case studies	Not clearly mentioned	Not reported	Details of intervention is missing. Moreover, numeric data showing pre-test and posttest comparisons are missing. Only 4 case studies have been mentioned
Saleem, Mahmood, and Naz (2013)	University students	1850	31 % of sample had severe problems regarding confidence, anxiety, being dysfunctional, and lack of self-regulation whereas 16 % reported these problems to be very severe. Regarding gender females scored higher on all problems except for lack of self-regulation where males scored higher as compared to females.	Convenience sampling	Student Problem Checklist	.95	

Naeem et al. (2005)	Medical students and doctors	500	56 % of medical professionals reported that they have not heard regarding symptoms of depression. Moreover, they had negative attitude towards depressed patients	Purposive convenience sampling	Survey Questionnaire was developed but no details mentioned regarding scale development	Not reported	Psychometrics were not reported.
Rab, Mamdou, and Nasir (2008)	Medical students	87	43.7 % of students reported anxiety and 19.5 % reported depression, students residing in dormitories experience more anxiety and depression as compared to those residing in homes	Random sampling	Hospital Anxiety and Depression scale	Not reported	Psychometrics were not reported, sample size is too small
Khan, Haider, and Khokhar (2015)	Medical students	110	Female students experience more anxiety. Non-significant differences were apparent on depression with reference to gender	Convenience sampling	Hospital Anxiety and Depression scale	Not reported	Sample size was too small to draw conclusive evidence, psychometric properties also not mentioned
Dawood, Khan, and Rashid (2017)	Prisoners	48	39.58 % had psychological disorder. Commonly reported disorders were panic disorders, panic disorder with agoraphobia, post-traumatic stress disorder and major depression	Purposive sampling	Screening Questionnaire for Psychiatric Disorders	Not reported	Sample size was too small to draw conclusive evidence, psychometric properties also not mentioned
Hussain and Ahmed (2018)	Community sample from Gilgit Baltistan	370	Married males had better mental health scoring less on psychological distress, depression, and anxiety.	Convenience sampling	Mental health Inventory	No reported	Psychometric properties including factor structure has not been established
Hussain, Creed, and Tomenson (2000)	Community sample from Pakistani Village	259	Prevalence rate for depression was 44.4 % (CI 95 % 35.3 -53.6). 25.5 % males and 57.5 % females had depression. Demographic correlates included less education, a greater number of dependents and financial constraints.	Convenience sampling	Self-Rating Questionnaire, Personal Health Questionnaire, Psychiatric Assessment Schedule, The Life Events and	Not reported	Despite of a very strong research design and psychometrics have not been reported. Any other tool ruling out the element of comorbidity has also been not considered.
Ahmad, Enam, Iqbal, Murtaza, and Bashir (2016)	Meta-analysis for studies over past 10 years in Pakistan	10 studies	Rates of depression vary from 20 to 60 %	Meta-analysis	Details of tools used in studies missing	Not reported	Details regarding selection criteria and methods used in different studies is missing.

Findings mentioned above indicate that within Pakistan mostly common researched mental health problem is depression, yet empirical evidences indicate that even it is not properly understood by clinicians leading to misdiagnosis and treatment. Despite of researches, showing strong evidence of comorbidity with other problems like anxiety and PDs, this has been ignored. Even accurate prevalence data is lacking. Several empirical researches published in national journals have not provided evidence of psychometric properties of tools used. Other mental problems have been grossly ignored and minimal understanding exists with reference to them. So, it becomes important to study mental health problems within Pakistani context employing tools that are psychometrically sound. So, there is a dire need to conduct epidemiological studies that can help understand the prevalence and comorbidity patterns apparent in both psychiatric patients' and community samples.

Moreover, researchers and clinicians all over the world are shifting towards empirically based assessments but these are not being explored in Asian countries in general and Pakistan in specific. There is a dire to test this emerging system of classification. Researchers argue that increased prevalence of mental health problems pose a serious challenge for low-income countries like Pakistan, where a low percentage of gross income product is allocated to health facilities (Ahmed, Enam, Iqbal, Murtaza, & Bashir, 2016). Although each disorder is unique in terms of manifestations of symptoms but disorders that show variation across same dimension exhibit common etiological causes, consequences, and treatment outcomes. Grouping of disorders in to broader dimension can help in understanding the common co-occurring patterns often referred to as co-morbidity. As well as it can aid in devising better assessment and treatment plans.

It can be inferred that despite of global efforts to develop an understanding of problematic behaviors, very little is known about prevalence of these in developing countries like Pakistan. This dearth of research is likely to impede policy development regarding mental health problems. With this research, an attempt is being made to contribute to this closure of knowledge gap by highlighting prevalence of mental health problems in adults across different ages and gender with reference to a developing country Pakistan.

Rationale of the Present Study

Accurate assessment is considered essential for designing effective interventions and treatment plans in clinical settings. Despite of strong agreement among researchers on this notion, in practice, assessment is carried out for the most pressing problems with which the patient comes in. This often ignores the features (for instance, personality pathology) that are believed to play a significant role in the onset of these problems (Tyrer, 2018). Personality disorders have a strong comorbidity with other mental health problems (Widiger, 2011), and in many cases create “diathesis”, also represented as “vulnerability”, for other mental health problems. Unassessed and poorly catered PDs at the time of initial assessment could lead to poor treatment and its adherence. Hence, it is imperative to understand the relationship between PDs and other mental health problems. Though this issue prevails worldwide, but in developing countries like Pakistan, where the health care system is already overburdened and mental health facilities are only restricted to urban settings, this diagnostic neglect becomes more pressing (Javed, Khan, Nasar, & Rasheed, 2020). With this notion, the present study was designed to examine the relationship between personality pathology and other mental health problems which were assessed through ASEBA for adults.

Before assessing the relationship, it is essential to develop an understanding of the prevalent practice (categorical) to assess psychopathology, which is a debatable concern (Krueger & Markon, 2006). Relying on this approach, the core focus is on establishing a minimum threshold of symptoms below which diagnosis is not made. For instance, in borderline personality disorders, presence of three symptoms instead of four required to make diagnosis lead to severe impairment like self-harm, suicidal behavior, employment related issues and other areas of adaptive functioning (Krueger et al., 2014).

Despite of recognizing this issue in DSM IV, and irrespective of the proposed changes by DSM V task force the categorical nature of many DSM disorders has been retained in section II of DSM V labelled as “diagnostic criteria and codes”. Based on empirical evidences (factor and cluster analysis) mental disorders tend to co-occur at a rate more than chance factors. Hence, empirically based classification systems speculate that if

intelligence's "g factor" exists a pathology "p factor" also exists. This calls for a revision (moving away from categorical and towards dimensional) in the way both PDs and other mental health problems are being conceptualized and assessed.

Most of the tools being used for clinical assessment in Pakistan have not reported the procedures followed for standardization despite of empirical findings indicating otherwise (Batool & Khaliliy, 2019). Therefore, it's essential to furnish evidence of construct validity for these instruments in Pakistan. To address this, the present research is undertaken to translate and adapt a promising system for assessing adult psychopathology (ASEBA) and validate ADP IV for Pakistani sample (clinical and non-clinical). Although ASEBA have been explored extensively with children and adolescent globally, but minimal work has been done with reference to adults in Pakistan. Both ASR and ABCL are empirically driven assessment tools; uniquely assess psychopathology and considers the issues of comorbidity among mental health problems. ADP IV assess PDs following both categorical and dimensional approach. Moreover, the present research attempts to makes a comparison across both samples which can also aid in establishing contrasted group validity for the instruments. Thus, the instruments of the present study are addressing the key emerging concerns of empirical researches. To summarize, this research can help in developing an understanding of psychopathology (empirically based taxonomies proposed by Achenbach for adults) by testing the eight-syndrome model and structure of personality disorders with respect to Pakistani context.

Another prime limitation of past researches as highlighted by Rescorla et al. (2016) is extensive reliance on self-report measures. Reliance on informant report measures is common to child psychopathology (globally as well as in Pakistan) whereas this aspect lacks in adult psychopathology (with reference to Pakistan). Though researchers are criticizing the sole use of self-report measure worldwide, but only few measures are available for comparison of both self and collateral reports. This research is adding to existing body of literature by providing evidence of convergent validity by using both self and informant measures simultaneously to assess problem behaviors as pointed by Multi trait multi method matrix (MTMM; Campbel & Fiske,1959).

Keeping in mind, a memorandum of understanding was signed between National Institute of Psychology, Quaid-i-Azam University Islamabad, and University of Vermont, Research Center for Children, Youth, & Families, United States for translation and adaptation of adult forms (ASR and ABCL into Urdu Language, details of MOU have been attached in Appendices (see Appendix A). Hence, one of the prime objectives of the research was to test the model proposed by Achenbach, Dumenci, and Rescorla (2003) that addresses problem behavior on the issues of co-morbidity, heterogeneity, and discrete versus continuous nature. Findings of the present research could help researchers to move from prevalent categorical to emerging empirically based taxonomies that have proven to be more representative of clinical psychopathology.

The present research further investigates the relationship between PDs and problem behavior by examining the moderating role of adaptive functioning including family functioning. This has been the key area of researcher's interest who tends to develop an understanding of etiological causes of disorders. It has already been studied in understanding impulsive behaviors, drug use, and eating disorders (Cheng, Chen, Chen, & Jenkins, 2000; Oldham, 2006). In addition to this, this research aims to test the additional moderating role of demographic variables i.e., age and gender in relationship between PDS and syndrome-based scales of ASEBA. The individual's socio-demographic variables play an important role in psychopathology and has also been emphasized by different scholars (Seltzer, Shattuck, Abbeduto, Greenberg, 2004; Zablotzky, Boswel, & Smith, 2012). PDs have been found to be more prevalent among males in comparison to females. But these differences have been mostly explored with one sample at a time i.e., either clinical or community/non-clinical sample. It's important to assess these with both samples so that a comprehensive picture can be drawn. Pakistan is a multicultural and multiethnic society and to understand the social, cultural, and familial background present research can aid in devising better intervention plans.

To conclude, the comparative methodology of the present research supplements the previous findings by testing the factor structures, prevalence, relationships, demographic differences across both clinical and non-clinical sample. In terms of practical implication

from public health perspective, incorporation of both samples would foster the challenges posed by the personality pathology to individuals in specific and to society in general.

Chapter II

OBJECTIVES AND RESEARCH DESIGN

The following chapter provides research objectives as well as an overview of the research design for the present study. This chapter entails the instrument details to provide a clear understanding of the eight-syndrome model and personality disorders with respect to their respective tools used to measure them.

Below are the objectives of the present study:

Objectives

The presents study aimed at exploring the role of personality disorders in prediction of Achenbach system of empirically based assessment among clinical and non-clinical groups of adults. More specifically the present research has been planned to achieve following objectives.

1. Translation and validation of Adult Self Report (ASR) and Adult Behavior Checklist (ABCL).
2. To compare multi-informant data (self-report and Informant report) on ASR and ABCL for both clinical and non-clinical sample.
3. To establish prevalence across broad band (externalizing, internalizing and total behavioral problems) and narrow band (anxious depressed, withdrawn, somatic complaints, thought problems, attention problems, rule breaking, aggressive behavior, and intrusive) problems among adults on ASR (self-report measure) and ABCL (informant measure) for clinical and non-clinical sample.
4. To establish prevalence of personality disorders (for ADP IV) among adults in clinical and non-clinical sample.
5. To explore the predictive role of personality disorders across broad and narrow band problems among clinical and non-clinical sample.
6. To explore the effect of demographic variables (age, gender, and education) on study variables among clinical and non-clinical sample.

Research Design

The present research comprised of two studies i.e. Study I and Study II.

Study I

Study I further comprised of two phases. In first phase translation of study tools was carried out. In second phase pilot testing of instruments was done.

Translation of instrument

In first phase Adult Self Report (ASR) and Adult Behavior Checklist (ABCL) were translated into Urdu language. Afterwards back translation into English language was done and feedback was taken from authors before finalization of both instruments.

Pilot testing

To pre-test the instruments, pilot testing was carried out on clinical ($n = 50$) and non-clinical ($n = 50$) sample. Contrasted group validity was established by comparing clinical and non-clinical sample on ASR, ABCL, and ADPIV by employing t test. Further evidence of convergent validity was established by comparing information obtained on self-report (ASR) and informant measure (ABCL). Internal consistency of scales was established by computing alpha reliabilities for ASR, ABCL, and ADP IV scales. Further a preliminary trend analysis of relationship between PDs and problem behavior was carried out by computing correlation.

Study II

Study II, main study, comprised of four phases and further analysis were carried out across both Clinical ($N = 408$) and Non-Clinical ($N = 487$) samples in these phases. All these phases are discussed in detail in the subsequent sections.

Phase I: Establishing psychometric properties

The major objective of Phase I of study II was to establish psychometric properties of ASR, ABCL, and ADP IV. To achieve this objective, evidence was furnished for construct validity and CFA was carried out. Proposed eight syndrome model was tested for ASR and ABCL. Further evidence of convergent validity was established by computing correlation between ASR and ABCL scales as these Urdu versions are being used for

Pakistani sample for the first time. The DSM IV proposed cluster structure of personality disorder was also tested as this scale has previously been translated and used with Pakistani sample (Hassan, 2012). Further contrasted group validity was established by *using t* test for comparison of ASR, ABCL, and ADP IV.

Evidence of internal consistency was established by computing Cronbach alpha reliability for ASR, ABCL, and ADP IV scales and sub-scales.

Phase II: Establishing prevalence

Prevalence was established across ASR and ABCL for narrow band problems (anxious, depressed, withdrawn, somatic complaints, thought problems, attention problems, rule breaking, aggressive behavior, and intrusive problems) and broad band scales (internalizing, externalizing, and total problem behavior). Across ADP IV prevalence was also established for all twelve PDs along with Cluster A, B, and C. In addition to this, prevalence was also established across age and gender.

Phase III: Establishing relationship (between PD and problem behavior) and group differences

To establish the relationship between PDs and problem behavior (including both narrow and broad band scales of ASR and ABCL) correlation was computed. Later, predictive role of each cluster of PDs was established for broad band scales of internalizing and externalizing problem behavior as well as for narrow band scales (thought and attention problems). Moreover, the relationship of adaptive functioning with PDs and ADP IV was established and differences across demographic variables (age, education, and gender) for ASR, ABCL, and ADP IV were also explored.

Phase IV: Moderation Analysis

Moderating role of adaptive functioning, age, and gender in relation between PD clusters and Problem behaviors that include broad band scale of internalizing, externalizing behavioral problems, and narrow band scale (thought and attention problem) was established in this phase.

Conclusion

This Chapter outlined the methodology of the present research. The methodology included translation, adaptation, and pilot testing in the study 1. Study II incorporated the main analysis including the construct validation through CFA, and hypotheses testing via different analysis (relationships, group differences, and moderation analysis).

The research design has been graphically represented in Figure 1.

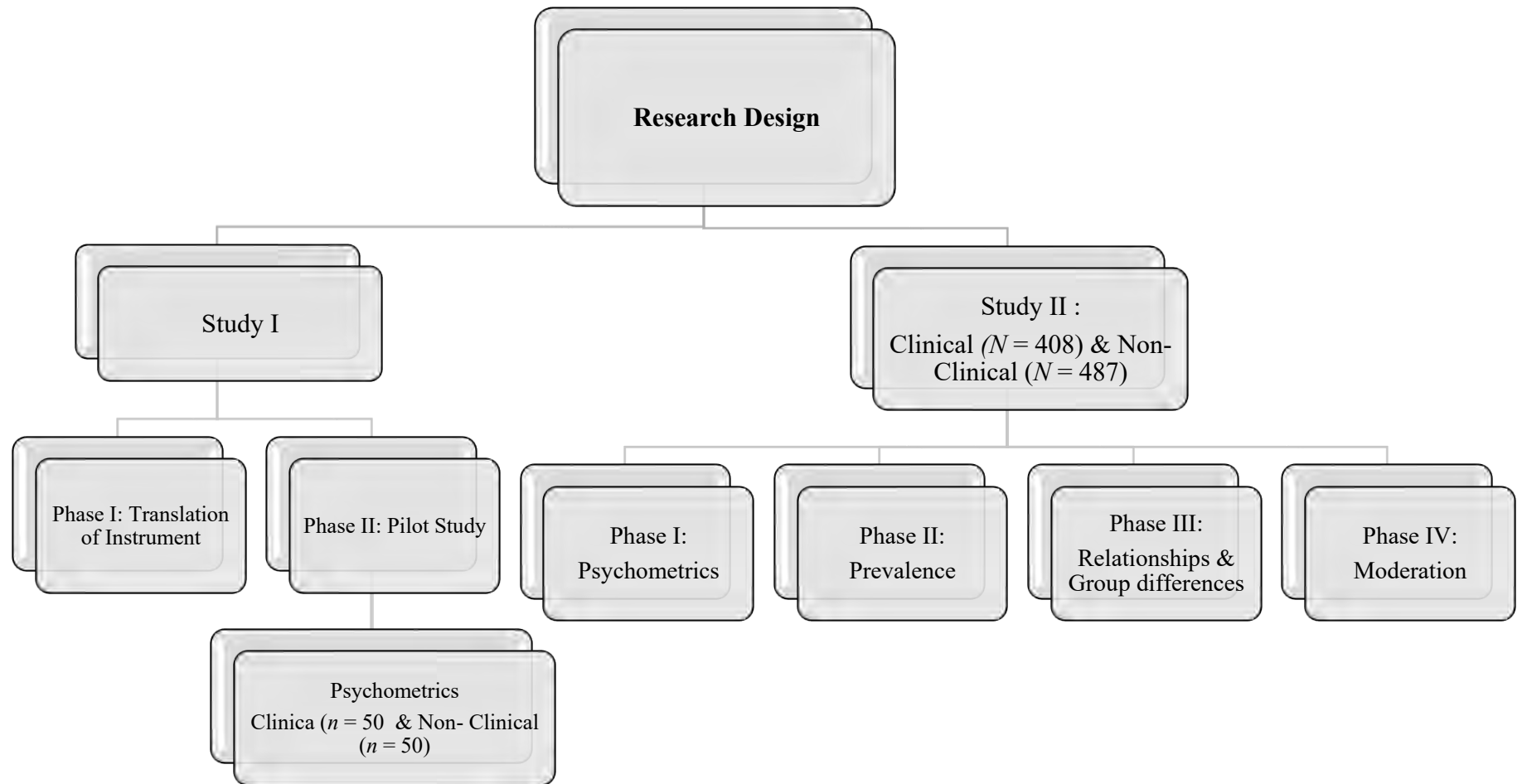


Figure 1. Research Design and Study Description

Chapter III

Study I: Translation, Adaptation (ASR & ABCL), and Pilot Study

Previous chapter provides an illustration of the overall research design, and this Chapter will examine Study I in detail. Phase I of the study entails translation and adaptation of ASR and ABCL into Urdu. The present study used Urdu version of ADP IV (Hassan, 2012); hence, it was not translated in this phase. Phase II of the study comprise of pilot testing of the study I.

Following are the objectives of Study I:

Objectives

1. To translate and adapt Adult Self Report (ASR) and Adult Behavior Checklist (ABCL).
2. To pre-test translated measures (ASR and ABCL) establish psychometric properties and conduct preliminary analysis to understand the emerging trends of all study variables across clinical and non-clinical samples.

As mentioned in Chapter II, Study I comprised to two phases. In the first phase translation and adaption of ASR and ABCL was carried out whereas in the second phase initial review of the instruments was carried out along with pilot testing. Before discussing the process of translation and adaptation details of study measures has been summarized below.

Instruments

Following measures were used to assess study variables.

Adult Self-Report (ASR). The ASR is revision and modification of Young Adult self-report (YASR), which provides norms for ages 18 to 30. It provides in-depth information about adaptive functioning in the areas like friendships, occupational functioning, relationship with spouse, and other family members. It also caters the emotional, behavioral, and social problems of the respondents. The responses are rated as 0 = not true, 1 = *somewhat or sometimes true* and 2 = *very often or often true* based upon

preceding 6 months (Achenbach & Rescorla, 2003). Syndrome based scoring and adaptive functioning scales of has been explained below.

Syndrome based scoring. 99 items contribute to the overall eight-syndrome model and includes: narrow band scales (anxious depressed: 18 items, withdrawn: 9 items, somatic complaints: 12 items, thought problems: 10 items, attention problem: 15 items, rule breaking behavior: 14 items, aggressive behavior: 15 items, and intrusive problems: 6 items). The first three narrow band scales (anxious depressed, withdrawn, and somatic complaints) are grouped together to formulate broad band scale of internalizing behavioral problems. The last three narrow band scales (rule breaking, aggressive problem, and intrusive problems) are grouped together and formulate broad band scale of externalizing behavioral problems. Both attention problems and thought problems are retained as separate problem behaviors. These all subscales are summed together to get total problem score. The reliability of narrow abnd scales ranged from .51 to .88 whereas for broadband scales it ranged from .93 to .97. High score on each subscale indicates higher presence of that problem behavior and vice versa (Achenbach & Rescorla, 2003). The details of scales and items has been summarized in Appendices (see Appendix B1).

Adaptive Functioning scales. ASR further consists of five subscales assessing individuals mean adaptive functioning. It includes subscale of friends (4 items), spouse (8 items), family (5 items), job (8 items), and education (5 items). The scoring of these scales is based upon computation of mean scores. High score on each subscale represents better adaptive functioning in the respective domain and vice versa. Similarly, cumulative high mean score represents higher level of adaptive functioning and vice versa (Achenbach & Rescorla, 2003).

The Adult Behavior Checklist (ABCL). The ABCL is a revision of Young Adult Behavior Checklist (YABCL), which was previously normed for the ages 18-30. ABCL provides information about demographics, information about adult relationships with friends and relationship with spouse. Like ASR, it also caters the areas of emotional, behavioral, and social functioning of an individual. The responses are rated as 0 = not true, 1 = *somewhat or sometimes true* and 2 = *very often or often true* based upon preceding 6 months.

Syndrome based scoring. 99 items contribute the overall eight syndrome model. These are labelled as narrow band scales which include anxious depressed (14 items), withdrawn (9 items), somatic complaints (9 items), thought problems (9 items), attention problem (17 items), and rule breaking behavior (13 items), aggressive behavior (16 items) and intrusive problems (6 items). The first three narrow band scales that include anxious depressed, withdrawn, and somatic complaints are grouped together and formulate internalizing behavioral problems. The later three narrow band scales that include rule breaking, aggressive problem and intrusive problems are grouped together to formulate externalizing behavioral problems. Both attention problems and thought problems are retained as separate problem behaviors. These all subscales are summed together to get total problem score. High score on each subscale indicates higher presence of that problem behavior and vice versa. The reliability of narrow band scales ranged from .70 to .90 whereas for broadband scales it ranged from .92 to .97 (Achenbach & Rescorla, 2003). The details of scales and items has been summarized in Appendices (see Appendix B1).

Adaptive Functioning scales. It further consists of two subscales assessing individuals adaptive functioning. It includes subscale of friends (4 items) and spouse (8 items) as reported by informant. Higher score on each represents higher level of adaptive functioning.

Personality Disorders. The present study utilizes the Assessment of DSM-IV Personality Disorders Questionnaire (ADP-IV). It provides both dimensional and categorical score. Categorical score aids in identifying personality disorder and its relative standing in either of the cluster. ADP IV employs diagnostic algorithm, which identify the presence of symptom for a disorder. In present study $T > 5$ & $D > 1$ (that includes trait score greater than 5 and distress score greater than 1) algorithm is used to identify the diagnostic criteria according to DSM-IV-TR specified symptom threshold for disorder (Schotte et al., 1998). It consists of 94 items. The scale categorizes individuals with Cluster A disorders including Paranoid (7 items), Schizoid (7 items) and Schizotypal personality disorders (9 items), Cluster B including Borderline (10 items), Histrionic (8 items), narcissistic (9 items) and anti-social personality disorder (8 items) and Cluster C including dependent (8 items), Obsessive compulsive (8 items) and avoidant personality disorder (7 items). It also retains two not otherwise specified Passive aggressive (7 items) and depressive personality

disorders (7 items). The reliability of individual PDs ranged from .65 to .87, whereas, at cluster level it ranged from .86 to .90. For dimensional scoring higher score on respective subscale and scale represent higher presence of that particular trait (Schotte et al., 2004). The details of scales and items has been summarized in Appendices (see Appendix B3).

Phase I: Translation and adaptation of ASR and ABCL

The phase I of the present study involved translation and adaptation of ASR and ABCL.

Stage I: Translation and Adaptation of ASEBA Forms (Achenbach & Rescorla, 2003) English Version

For the assessment of adaptive functioning, behavioral, emotional, and social problems among clinical and non-clinical groups the Achenbach System of Empirically based Assessment (ASEBA) were used. These instruments have been translated in many languages (Achenbach & Rescorla, 2015) hence, by using them, one can quickly obtain standardized quantitative data on a broad spectrum of adaptive functioning strengths and problems. ASR and ABCL are parallel forms that facilitate comparisons between people's perception of their own behavior and other's people perception of their functioning. In terms of adaptive functioning, it provides information related to relationship with friends, spouse, performance at work, and education setting (Achenbach, 2009).

Procedure

In the present study ASR and ABCL for the ages 18-59 were translated in Urdu and adapted in Pakistani context. After the formal permission of the author, the English version of these scales were translated into Urdu. Following steps were undertaken in this regard.

Step 1: Selection of translators. Team of translators was selected keeping in view their education (at least post-graduate), proficiency in both source and target language (bilingual), and technical knowledge of the subject (psychology and linguistic). Forward translation design was used in order to minimize the drawbacks of design, the translators were selected keeping in view the above-mentioned criteria. Five translators were selected (three PhD scholars in psychology, one practicing clinical psychologist, and one PhD

linguistic). Instructions regarding purpose and process were given both in verbal and written form to the individual team members.

Step 2: Process of translation. Individual translation and feedback were received from all the members of the team. After compilation of the translated versions of each instrument a team of expert judges were approached for the selection of best translated item.

Step 3: Judges expert opinion. The team constituted four members (one professor in psychology and three PhD scholars) were proficient in bilingual and were subject matter experts. The committee reviewed all the translations and selected the best item.

Step 4: Back translation. To examine the compatibility of the translated (Urdu) with the original (English) version, items of both ASR and ABCL were back translated and a team of three individuals were selected as mentioned in Step 1. These members were not involved in forward translation.

Step 5: Judges expert opinion. Four expert opinions were taken from one professor and Ph.D. scholars to review the back translations. Once finalized original and backward translations were shared with authors for further feedback.

Graphical representation of the translation procedure is represented below.

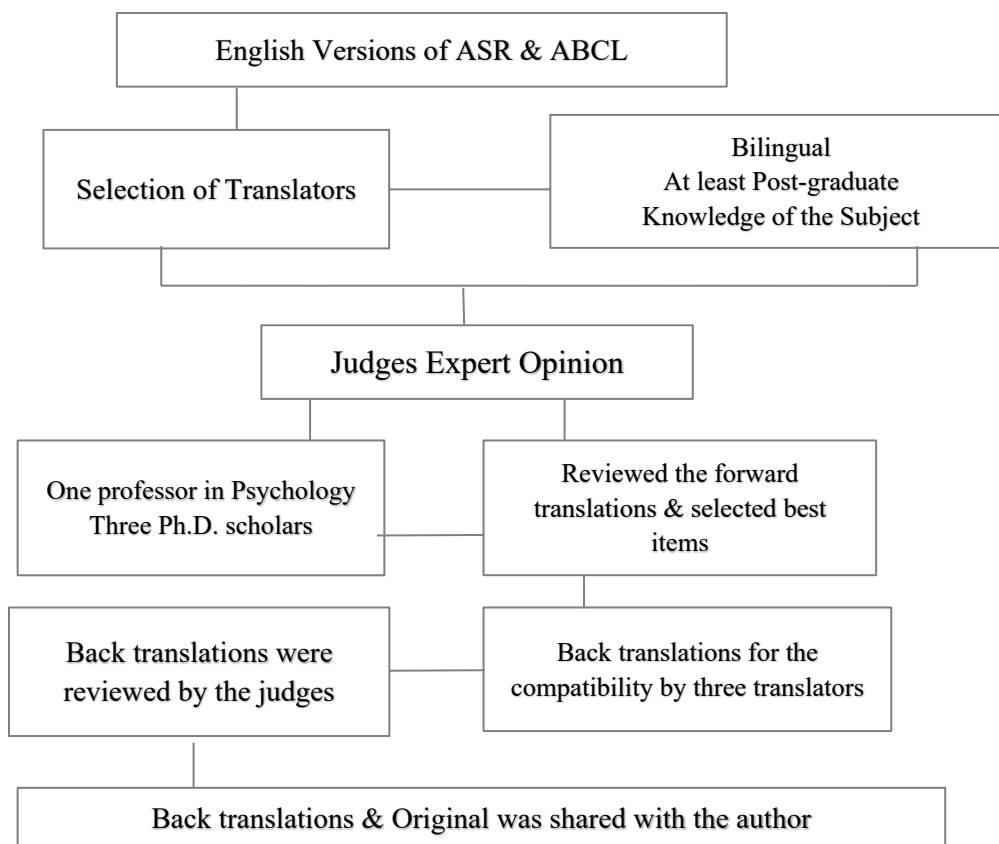


Figure 2. Process of Translation

Results

Brief description of the adaptations is mentioned in the Table 4. Broadly the changes are grouped into cultural, technical, and language / phrase expression. Only one cultural change was observed and adopted in the translation was marital status. In adaptive functioning scale assessing relationship with spouse the phrase of spouse/partner has been used in original version. Keeping in view the Pakistani society and cultural norms only spouse was retained. For technical change, equivalence was established in term of names of educational degrees and are mentioned in Table 4. Lastly, most of the changes are categorized under language / phrase expressions. Some examples of these changes are summarized in the table below.

Table 4
Translation & Adaptation Results of ASR and ABCL

Adaptations	ASR		ABCL		Remarks
	Original	Adaptations	Original	Adaptations	
Cultural: Marital Status	Spouse / Partner	Spouse was retained شریک حیات	Same as ASR	Same as ASR	Partners are not culturally appropriate
	Item 13: (confused or in fog)	Lost in thoughts میں اُلجھا ہوا مچھوسکتا کرتی ہوں۔ مچھیکچھ سجھتی نہیں ہوتا۔	Same as ASR	Same as ASR اُلجھا ہوا ہے	“In fog” not commonly used in Pakistani context
	Item 28: I get badly along with my family	I have difficulty in getting along with my family مچھنے خاندان کے ساتھ ہلکے سہلے لو کسے ہنے میں مشکل پیش آتی ہے۔	Item 28: Gets along badly with family	He has difficulty in getting along with the family خاندان کے ساتھ ہلکے سہلے ساتھ ساتھ / کٹھنی ہے۔	Negative connotations attach to the word “badly” rather than highlighting difficulty
	Item 34: I feel that others are out to get over me	I feel that others are ready to get over me مچھنے میں سے ہوتا کہہ دوسرے مچھنے پر چڑھ دوڑنے کے لیے تیار ہیں۔	Item 34: feels that others are out to get him/her	Feels that others are ready to get him/her سچ میں کہتا کرتی ہے کہہ دوسرے اس پر چڑھوڑنے کے لیے تیار ہیں۔	“Out to get me” has different connotations in Urdu.
Expression & Language: Phrase	Item 36: I accidentally get hurt a lot, accident-prone	I accidentally get hurt a lot ہر بار ہتھی ہونے کے لیے تیار ہوں، حادثات کا شکار ہوتا / رہتی ہوں۔	Item 36: gets hurt a lot, accident-prone	Gets hurt a lot بہت تیزی سے زخمی ہوتا ہوتی ہے، حادثات کا شکار۔	“Accident prone” is uncommon expression
	Item 42: I would rather be alone than with others	I prefer to be alone rather than with other people میں دوسروں کو گھونکے سے تنہا ہونے کی ترجیح دیتی ہوں۔	Item 42: would rather be alone than with others	Prefer to be alone rather than with other people دوسروں کی بجائے تنہا ہونے کو ترجیح دیتی ہوں۔	“Would rather be” not a common expression
	Item 68: I scream or yell a lot	I scream or shout a lot ہر بار ہتھی ہونے کے لیے تیار ہوں / چلاتی ہوں۔	Item 68: screams or yells a lot	He screams or shouts a lot بہت تیزی سے چلاتا / چلاتی ہے۔	“yelling / screaming” considered similar
	Item 74: I show off or Clown	I show off or act up میں ٹیکھا ہوا ہوں یا مسخرہ بپن کرنے والی ہوں۔	Item 74: Showing off or Clowning	He Shows off or acts up دیکھا ہوا ہوں یا مسخرہ بپن کرنے والی ہوں۔	“Clowning off” is culturally inappropriate (used in a judgmental connotation)
	Item 113: sulks a lot	Too much irritable / depressed / restless بہت زیادہ گھبراگھبرا / گھڑی گھڑی رہتی ہے۔	NA	NA	“Sulking” not used in Urdu Language
Technical: Educational Level	High School diploma etc.	Illiterate, primary, middle, matric, intermediate, graduation, masters, and above	Same as ASR	Same as ASR	Names of educational degree are different

Step 6: Pre-test of instruments. Hambleton, Merenda, and Spillberger (2004) suggested that all translated and adapted instruments should be pre-tested to assess the cultural meaning, understanding and item comprehension. Keeping in mind, the translated instruments were reviewed by researcher and then administered on five individuals between the ages of 18-59. All of them reported that instruments are easy to comprehend and culturally appropriate.

After the translation and adaptations of ASR and ABCL, pilot testing was carried out in the phase II to examine the psychometric properties and emerging trends of all study variables across both samples.

Phase II: Pilot Testing

Objectives. Pilot Study was carried out with an objective to:

1. Establish psychometric properties by determining internal consistency, contrasted group validity across all study variables, and convergent validity of ASR and ABCL.
2. Study the relationship between personality pathology and problem behaviors (both narrow and broad band) across both samples.

Sample. Employing the technique of purposive convenience sampling, data was collected from 50 clinical and 50 non-clinical adults. The sampling criteria was age between 18-59 years, and the age range was further grouped into two categories (1) 18-35, early adulthood and (2) 36-59, late adulthood. These age groups were based on Achenbach's normative data for ASR and ABCL (Achenbach & Rescorla, 2003). However, due to the nature of the sample, the study had separate inclusion criteria for both samples. Psychiatric judgement for cognitive stability was considered as an inclusion criterion for clinical sample but it was assured that the individual is not taking any psychiatric medicine at least for the past two years for non-clinical sample. Additionally, for ASR (self-report) and ABCL (collateral report), it was assured that the data was provided by the relative of the person (for whom ASR is being filled) at least for the past six months.

The details of sample characteristics for pilot study are given below in Table 5.

Table 5

Demographic Characteristics for Clinical (N = 50) and Non-Clinical (N=50) Sample

Demographics	Clinical <i>f</i> (%)	Demographics	Non-Clinical <i>f</i> (%)
Gender			
Male	28 (56)	Male	18 (36)
Female	22 (44)	Female	32 (64)
Age			
18-35	36 (72)	18-35	33 (66)
36-59	14 (28)	36-59	17 (34)
Education			
Never Went to School	5 (10)	Never Went to School	10 (20)
Primary	5 (10)	Primary	8 (16)
Middle	8 (10)	Middle	8 (16)
Matric	18(36)	Matric	11(22)
Intermediate	8 (16)	Intermediate	8 (16)
Graduation	6 (10)	Graduation	5 (10)
Marital Status			
Single	19 (38)	Single	17 (34)
Married but not living with Spouse	6 (12)	Married but not living with Spouse	5 (10)
Married living with Spouse	22 (44)	Married living with Spouse	25 (50)
Divorced	1 (2)	Divorced	0 (0)
Widowed	2 (4)	Widowed	3 (5)

Table 5 indicates the sample distribution across demographic variables. The distribution further caters that number of males were higher among clinical and number of females were higher in non-clinical. However, much differences were not apparent in terms of frequencies of other demographics across both samples.

Procedure. After seeking formal permission from hospital administrations of Islamabad and Rawalpindi, data was collected from outpatient services of Pakistan Institute of Medical Sciences, Military Hospital, Capital Development Authority, and Benazir Bhutto hospital for clinical sample. However, community was approached for non-clinical sample. Participants were formally briefed about the purpose of the study and informed consent was sought from them. Individuals were assured about the confidentiality of their responses, and that their data would only be used for research purpose. For the clinical sample, items were read to the individuals and their responses were marked. For non-clinical sample, in cases where individuals were educated questionnaires were given to the

respondents and were instructed to mark any item that they think is either difficult to comprehend or culturally inappropriate. However, in cases where individuals were not educated similar pattern was followed as stated for clinical sample. The respondents gave no specific feedback regarding items except that the questionnaires were lengthy. At the end, participants were thanked for their cooperation.

Results

To establish psychometric properties for the pilot study, descriptive statistics, Cronbach alpha and correlation coefficients were computed. The details of each analysis are mentioned in the subsequent tables.

Table 6
Descriptive Characteristics of all the Variables (ASR, ABCL, & ADPIV) for Clinical (N = 50) and Non-Clinical (N = 50) Sample

Variables	<i>k</i>	α		<i>M(SD)</i>		Range			Skewness		Kurtosis	
		Cli.	Non-Cli	Cli.	Non-Cli.	Pot.	Act. Cli.	Act Non-Cli.	Cli.	Non-Cli.	Cli.	Non-Cli.
Adult Self Report (ASR) Syndrome Based Scales and Subscales												
Anxious / Dep.	18	.90	.86	22.3 (9.36)	9.31 (6.73)	0-36	1-36	0-24	-.53	.57	-.85	-.64
Withdrawn	9	.78	.64	10.18 (4.86)	4.16 (3.06)	0-18	0-18	0-11	-.24	.86	-1.04	-.33
Somatic Comp.	12	.78	.89	13.62 (5.47)	4.98 (5.69)	0-24	3-23	0-20	-.38	1.35	-1.07	.74
Thought Problem	10	.70	.71	5.74 (4.34)	3.13 (2.92)	0-20	0-16	0-12	.76	1.5	-.23	1.75
Attention Problem	15	.88	.85	15.52 (8.24)	6.40 (5.58)	0-30	0-30	0-23	-.15	1.17	-.17	1.08
Aggressive. Beh	15	.87	.85	16.16 (7.54)	6.75 (5.61)	0-30	0-30	0-21	-.03	1.06	-.67	.36
Rule Breaking. Beh	14	.85	.77	6.44 (6.43)	2.65 (3.34)	0-28	0-22	0-16	1.23	2.49	.26	4.82
Intrusive	6	.58	.69	2.96 (2.62)	2.27 (2.29)	0-12	0-10	0-10	.76	1.55	-.16	2.69
Internalizing. Beh	39	.93	.91	46.1 (17.19)	18.36 (12.79)	0-78	7-71	1-48	-.47	.83	-.88	-.42
Externalizing. Beh.	35	.91	.89	25.56 (14.2)	11.96 (9.88)	0-70	0-60	0-42	.87	1.22	.24	1.04
Total Problem Scr.	120	.96	.96	109.06 (42.94)	49.12 (32.18)	0-240	31-200	5-130	.09	.81	-.56	.05
Adult Behavior Checklist (ABCL) Syndrome Based Scales and Subscales												
Anxious / Dep.	14	.93	.88	18.62 (8.68)	6.96 (6.14)	0-28	0-28	0-20	-.58	.76	-1.07	-.75
Withdrawn	9	.81	.71	9.55 (4.92)	4.11 (3.33)	0-18	0-18	0-13	-.41	.97	-.95	.26
Somatic Comp.	9	.75	.80	10.18 (4.13)	3.52 (3.84)	0-18	0-16	0-14	-.70	1.33	-.52	.91
Thought Problem	9	.77	.76	5.74 (4.66)	2.09 (2.87)	0-18	0-16	0-12	.50	2.1	-.69	4.75
Attention Problem	17	.90	.85	18.18 (9.31)	6.44 (6.04)	0-34	0-34	0-21	-.26	.73	-1.07	-.61
Aggressive. Beh.	16	.88	.88	17.06 (8.04)	6.54 (6.35)	0-32	0-32	0-27	-.03	1.35	-.24	1.57
Rule Breaking	13	.89	.74	6.49 (6.74)	2.50 (3.20)	0-26	0-24	0-14	1.22	2.14	.72	3.63
Intrusive	6	.71	.66	3.9 (3.11)	2.04 (2.15)	0-12	0-12	0-10	.63	1.76	-.43	3.51
Externalizing. Beh.	35	.93	.91	38.47 (15.93)	11.36 (10.37)	0-70	0-66	0-39	.67	1.31	-.01	1.23
Internalizing. Beh.	32	.94	.91	27.47 (15.75)	14.28 (11.39)	0-64	2-57	1-41	-.77	.75	-.76	-.70
Total Problem. Scr.	112	.97	.97	105.77 (46.34)	43.38 (33.51)	0-224	11-197	2-108	-.08	.57	-.63	-1.07
Assessment of DSM IV Personality Disorders (ADP IV) Questionnaire												
Paranoid	7	.81	.65	2.36 (2.24)	1.54 (1.64)	7-49	7-49	7-42	.78	.85	-.48	-.51
Schizoid	7	.64	.64	2.42 (1.8)	1.27 (1.51)	7-49	7-49	7-35	.30	1.57	-.74	3.30
Schizotypal	9	.71	.61	2.8 (2.26)	1.57 (1.65)	9-63	9-63	9-40	.74	1.33	-.39	1.95
Cluster A	23	.87	.84	7.58 (5.32)	4.50 (4.23)	23-161	23-161	23-105	.47	1.13	-.62	.91

Continued..

Variables	<i>k</i>	α		<i>M(SD)</i>		Range			Skewness		Kurtosis	
		Cli.	Non-Cli	Cli.	Non-Cli	Pot.	Act. Cli.	Act Non-Cli.	Cli.	Non-Cli	Cli.	Non-Cli.
Anti-social	8	.70	.39	1.52 (1.69)	.80 (1.03)	8-56	8-56	8-32	1.2	1.24	1.02	.91
Borderline	11	.79	.72	4.02 (2.38)	1.89 (1.89)	11-77	11-77	11-70	-.20	.76	-.91	-.30
Histrionic	8	.49	.59	1.48 (1.31)	1.34 (1.41)	8-56	8-56	8-49	.83	.91	-.04	.14
Narcissism	9	.67	.67	1.88 (1.89)	1.54 (1.67)	9-63	9-63	9-35	1.22	1.4	1.22	2.04
Cluster B	36	.86	.85	8.9 (5.5)	5.43 (4.83)	36-252	36-252	36-210	.31	.89	-.51	.49
Avoidant	7	.72	.55	2.44 (2.04)	1.43 (1.46)	7-49	7-49	7-35	.70	.80	-.37	-.22
Dependent	8	.55	.75	2.4 (1.7)	1.94 (2.00)	8-56	8-56	8-40	.48	1.12	-.41	.31
Obsessive Comp.	8	.68	.63	2.06 (1.89)	2.45 (1.90)	8-56	8-56	8-40	.69	.81	-.34	.21
Cluster C	23	.82	.82	6.94 (4.58)	5.89 (4.40)	23-161	23-161	23-140	.15	.78	-1.06	.88
Total Clusters	82	.93	.93	6.94 (4.58)	15.98 (12.35)	82-574	82-574	82-525	.12	.65	-.61	-.16
NOS- Depressive	7	.82	.70	3.36 (2.24)	1.27 (1.59)	7-49	7-49	7-21	-.27	1.41	-1.90	1.35
Passive Aggressive	7	.52	.53	2.48 (1.63)	1.10 (1.27)	7-49	7-49	7-28	.70	1.31	-1.58	1.4

Note. Cli. = Clinical; Non-Cli. = Non-Clinical; Pot = Potential; Act. = Actual; Beh = Behavior; Dep = Depression; Comp = Complaints; Scr = Score.

Table 6 displays the descriptive statistics (along with Mean, Standard Deviation, Range, Skewness, and Kurtosis) of all the scales and subscales of the study for clinical and non-clinical sample of adults. With exception of rule breaking behavior for non-clinical sample, values of skewness and kurtosis are within range indicating that data is normally distributed for ASR. For ABCL, except for thought, rule breaking and intrusive subscales all values are within the range providing evidence for normality of data. For ADP IV, except for schizoid PD all values of skewness and kurtosis are within normal range. The overall reliability of subscales of ASR ranged from .58 to .90. Lowest reliability (.58) was observed for subscale of intrusive problem for clinical sample. For non-clinical sample reliability ranged from .64 to .91. Lowest reliability was observed for withdrawn behavioral problem. For ABCL, reliability of syndrome-based scale ranged from .71 to .93. Whereas, for non-clinical sample the reliability of syndrome-based scales ranged from .66 to .91. Lowest reliability (.66) was observed for intrusive behavior problem. For ADP IV reliability estimates ranged from .49 to .81 for clinical sample. Low reliabilities were apparent for sub-scales of schizoid, histrionic and passive aggressive PDs. For non-clinical sample these values ranged from .39 to .75 for subscales. Paranoid (.65), schizoid (.64), schizotypal (.61), antisocial (.39), histrionic (.59), avoidant (.55) and passive aggressive (.53) PD had low estimates. One of the probable reasons assumed for these low reliabilities could be small sample size. In addition to this the main problem of low reliabilities was with subscales. For ASR and ABCL, broad band scales of internalizing, externalizing and total problem behavior had good reliability estimates. Similarly, For ADP IV, at broader level of Cluster A, B, C, and total clusters reliability estimates were good. To an extent these findings are in line with previous studies (Magai, Malik, & Koot, 2018; Smits, Van der Ark, & Conjin, 2018) indicating that as these scales are based upon DSM's criteria often derived from information taken by patients at the time of intake, so they represent low to moderate internal consistencies. It was however decided to explore these values in main study with larger sample size.

After establishing the internal consistency, evidence of convergent validity was furnished for pilot study by computing Pearson correlation between ASR and ABCL as both scales measure similar constructs.

Table 7

Correlation between Subscale of ASR (Syndrome) and ABCL (Syndrome) for Clinical (N = 50) and Non-Clinical (N = 50) Sample

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	-	.56**	.57**	.35*	.35*	.06	.09	.19	.15	.74**	.48**	.21	.30*	.10	.54**	.46**	.61**	.63**	.79**	.23	.74**	.58**
2	.64**	-	.57**	.45**	.64**	.06	.21	.28	.23	.86**	.63**	.30*	.36*	.10	.46**	.46**	.51**	.89**	.49**	.31*	.75**	.64**
3	.63**	.54**	-	.71**	.59**	.27	.52**	.66**	.59**	.89**	.84**	.57**	.62**	.32*	.63**	.69**	.90**	.58**	.66**	.58**	.84**	.82**
4	.53**	.66**	.51**	-	.57**	.43**	.73**	.82**	.79**	.64**	.89**	.71**	.68**	.31*	.48**	.83**	.66**	.41**	.41**	.68**	.60**	.78**
5	.54**	.50**	.66**	.41**	-	.33*	.43**	.51**	.50**	.67**	.75**	.35*	.37**	.17	.61**	.48**	.44**	.45**	.41**	.34*	.50**	.55**
6	.05	.22	.35*	.25	.45**	-	.41**	.64**	.78**	.18	.56**	.67**	.49**	.75**	.35*	.50**	.19	.06	.08	.70**	.15	.51**
7	.30*	.40**	.58**	.48**	.46**	.26	-	.74**	.81**	.39**	.72**	.59**	.75**	.28*	.39**	.64**	.52**	.15	.23	.63**	.38**	.61**
8	.38**	.49**	.65**	.55**	.68**	.63**	.54**	-	.96**	.51**	.87**	.89**	.79**	.60**	.57**	.77**	.61**	.22	.30*	.88**	.47**	.80**
9	.29	.46**	.65**	.52**	.65**	.84**	.63**	.92**	-	.45**	.86**	.86**	.80**	.65**	.53**	.76**	.54**	.18	.25	.88**	.41**	.77**
10	.82**	.80**	.91**	.65**	.69**	.28	.55**	.68**	.60**	-	.82**	.48**	.54**	.24	.64**	.66**	.82**	.83**	.72**	.49**	.92**	.82**
11	.66**	.77**	.83**	.77**	.75**	.54**	.63**	.89**	.86**	.89**	-	.77**	.77**	.48**	.69**	.84**	.76**	.56**	.54**	.78**	.74**	.91**
12	.19	.24	.45**	.40**	.35*	.59**	.29	.82**	.74	.42**	.66**	-	.81**	.67**	.47**	.80**	.54**	.26	.26	.97**	.44**	.83**
13	.20	.30*	.49**	.39*	.33*	.27	.57**	.51**	.52**	.43**	.51**	.59**	-	.52**	.57**	.79**	.65**	.37*	.38**	.88**	.57**	.84**
14	.00	.15	.35*	.21	.33*	.76**	.22	.64**	.70**	.26	.49**	.70**	.49**	-	.43**	.43**	.30*	.13	.16	.78**	.24	.56**
15	.28	.31*	.59**	.26	.57**	.52**	.25	.70**	.67**	.51**	.66**	.74**	.55**	.68**	-	.57**	.60**	.43**	.61**	.54**	.62**	.73**
16	.13	.36*	.43**	.69**	.26	.43**	.39*	.60**	.59**	.41**	.65**	.77**	.71**	.61**	.53**	-	.69**	.50**	.49**	.79**	.66**	.90**
17	.33*	.28	.70**	.32*	.40**	.39**	.34*	.57**	.54**	.58**	.60**	.72**	.54**	.48**	.68**	.58**	-	.59**	.74**	.57**	.91**	.84**
18	.71**	.80**	.64**	.66**	.58**	.18	.48**	.57**	.48**	.81**	.77**	.53**	.53**	.25	.55**	.52**	.57**	-	.60**	.29*	.85**	.67**
19	.63**	.38*	.49**	.33*	.24	-.06	.10	.20	.11	.56**	.42**	.34*	.24	.01	.32*	.29	.66**	.60**	-	.30*	.84**	.66**
20	.17	.27	.51**	.41**	.39*	.65**	.41**	.79**	.79**	.44**	.68**	.93**	.77**	.84**	.81**	.82**	.70**	.52**	.27	-	.48**	.85**
21	.56**	.50**	.74**	.48**	.48**	.27	.39*	.57**	.51**	.73**	.70**	.68**	.55**	.37*	.65**	.60**	.94**	.79**	.81**	.65**	-	.84**
22	.34*	.40*	.67**	.53**	.53**	.51**	.45**	.77**	.73**	.60**	.79**	.91**	.73**	.70**	.82**	.84**	.87**	.68**	.56**	.93**	.86**	-

Note. Bold = Clinical Sample; 1 = Intrusive; 2 = Rule Breaking; 3 = Aggressive; 4 = Attention Problem; 5 = Thought Problem; 6 = Somatic Complaints; 7 = Withdrawn; 8 = Anxious/Depresses; 9 = Internalizing; 10 = Externalizing; 11 = Problem Score; 12 = Anxious/Depressed ABCL; 13 = Withdrawn ABCL; 14 = Somatic ABCL; 15 = Thought ABCL; 16 = Attention ABCL; 17 = Aggressive ABCL; 18 = Rule Breaking ABCL; 19 = Intrusive ABCL; 20 = Internalizing ABCL; 21 = Externalizing ABCL; 22 = Problem Score.

* $p < .05$, ** $p < .001$.

Table 7 describes the relationship between narrow band scales of ASR and narrow band scales of ABCL for both clinical and non-clinical samples. It indicates relationship between broad band scales of ASR and ABCL for both clinical and non-clinical samples. Findings indicate that a significant positive relationship was observed between narrow band scales ranging from .61 to .90 for clinical sample. For nonclinical sample it ranged from .52 to .82. For broad band scales as well, significant positive relationship was observed ranging from .88 to .92 for clinical sample and .73 to .79 for non-clinical sample. From these, evidence of convergent validity is evident between ASR and ABCL for both clinical and non-clinical samples which are in expected direction.

To provide evidence for contrasted group validity, *t* test was carried out for ASR syndrome-based scales, ABCL syndrome-based scales and ADP IV for both clinical and non-clinical samples.

Table 8
 Group Comparisons for Clinical ($N = 50$) and Non-Clinical ($N = 50$) Sample across all Study Variables

Variables	Clinical ($n = 50$)	Non-Clinical ($n = 50$)	$t_{(99)}$	p	95% CI		Cohen's d
	$M(SD)$	$M(SD)$			LL	UL	
Adult Self Report (ASR) Syndrome Based Subscales							
Anxious / Dep.	22.3 (9.36)	9.31 (6.73)	7.92	.00	9.34	16.25	2.09
Withdrawn	10.18 (4.86)	4.16 (3.06)	7.14	.00	4.35	7.7	1.23
Somatic Comp.	13.62 (5.47)	4.98 (5.69)	7.67	.00	6.4	10.88	2.05
Thought Problem	5.74 (4.34)	3.13 (2.92)	3.46	.00	1.11	4.11	.60
Attention Problem	15.52 (8.24)	6.4 (5.58)	6.15	.00	6.18	12.07	1.57
Aggressive. Beh	16.16 (7.54)	6.75 (5.61)	6.98	.00	6.74	12.09	1.43
Rule Breaking.	6.44 (6.43)	2.65 (3.34)	3.58	.00	1.68	5.89	.77
Intrusive	2.96 (2.62)	2.27 (2.29)	1.41	.16	-.29	1.68	
Internalizing. Beh	46.1 (17.19)	18.36 (12.79)	8.78	.00	21.46	34.01	2.31
Externalizing. Beh.	25.56 (14.19)	11.96 (9.88)	5.36	.00	8.57	18.64	1.00
Total Problem	109.06 (42.94)	49.13 (32.18)	7.33	.00	43.69	76.18	2.44
Adult Behavior Checklist (ABCL) Syndrome Based Subscales							
Anxious / Dep.	18.63 (8.68)	6.96 (6.14)	7.52	.00	8.59	14.76	1.87
Withdrawn	9.55 (4.92)	4.11 (3.33)	6.22	.00	3.7	7.18	1.10
Somatic Comp.	10.18 (4.13)	3.52 (3.84)	8.16	.00	5.04	8.28	1.78
Thought Problem	5.74 (4.66)	2.09 (2.87)	4.58	.00	2.07	5.24	.85
Attention Problem	18.18 (9.31)	6.44 (6.04)	7.08	.00	8.45	15.03	1.92
Aggressive. Beh.	17.06 (8.04)	6.54 (6.35)	7.07	.00	7.56	13.47	1.49
Rule Breaking	6.49 (6.74)	2.50 (3.20)	3.65	.00	1.82	5.16	.60
Intrusive	3.90 (3.11)	2.04 (2.15)	3.43	.00	0.78	2.93	.58
Externalizing. Beh.	27.47 (15.75)	11.36 (10.38)	5.75	.00	10.54	21.67	1.80
Internalizing. Beh.	38.47 (15.94)	14.28 (11.39)	8.27	.00	18.38	30	1.83
Total Problem.	105.77 (46.34)	43.38 (33.51)	6.89	.00	44.37	80.4	2.40
Assessment of DSM IV Personality Disorders (ADP IV) Questionnaire							
Paranoid	2.36 (2.24)	1.54 (1.64)	2.09	.04	.04	1.59	.25
Schizoid	2.42 (1.79)	1.27 (1.51)	3.46	.00	.49	1.82	.64
Schizotypal	2.8 (2.26)	1.57 (1.65)	3.03	.00	.42	2.03	.65
Cluster A	7.58 (5.32)	4.5 (4.23)	3.12	.00	1.12	5.04	.88
Anti-social	1.52 (1.69)	.8 (1.03)	2.57	.01	.16	1.28	.24
Borderline	4.02 (2.38)	1.89 (1.89)	4.86	.00	1.26	2.99	1.24
Histrionic	1.48 (1.31)	1.34 (1.41)	.51	.61	-.40	.68	.08
Narcissism	1.88 (1.89)	1.54 (1.67)	.92	.36	-.39	1.06	.20
Cluster B	8.9 (5.49)	5.43 (4.83)	3.23	.00	.34	5.6	.63
Avoidant	2.44 (2.04)	1.43 (1.46)	2.83	.00	.30	1.72	.29
Dependent	2.40 (1.70)	1.94 (2.00)	1.24	.22	-.28	1.2	.29
Obsessive Comp.	2.06 (1.89)	2.45 (1.91)	1.01	.31	-1.15	.37	-.20
Cluster C	6.94 (4.58)	5.89 (4.41)	1.14	.26	-.78	2.87	.32
Total Clusters	23.61 (13.48)	15.98 (12.35)	2.78	.00	2.18	13.09	.85
NOS- Depressive	3.36 (2.24)	1.27 (1.59)	5.36	.00	1.32	2.87	.28
Passive Aggressive	2.48 (1.63)	1.11 (1.27)	4.6	.00	.78	1.97	.85

Note. Dep. = Depressive; Beh. = Behavior; Comp. = Compulsive; CI = Confidence Interval; LL = Lower Level; UL = Upper Level.

Table 8 displays mean differences for both samples. For both ASR and ABCL Syndrome based scale i.e., both broad and narrow band scales, clinical sample scored higher as compared to non-clinical sample. Except for narrow band scale of intrusive problem for ASR, where non-significant difference was observed. For ADP IV as well, clinical sample scored higher on individual PDs except for histrionic, dependent, obsessive compulsive, and overall cluster C where these differences were non-significant.

In order to establish, relationship between personality pathology and behavioral problems, correlation was computed across both broad band scales i.e. internalizing and externalizing behavioral problems and narrow band scales i.e. anxious depressed, withdrawn, somatic complaints, rule breaking behavior, aggressive behavior and intrusive behavioral problems.

Table 9
Correlation between Subscale of ASR (Syndrome) and ADPIV for Clinical (N = 50) and Non-Clinical (N = 50) Sample

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1	-	.56**	.57**	.35*	.35*	.06	.09	.19	.15	.74**	.48**	.45**	.29*	.29*	.54**	.34*	.21	.23	.15	.14	.33*	.41**	.44**	.25	.42**	.06	.28*
2	.63**	-	.57**	.45**	.64**	.06	.21	.28	.23	.86**	.63**	.57**	.26	.21	.81**	.48**	.22	.18	.14	.29*	.48**	.42**	.58**	.37**	.52**	.09	.37**
3	.63**	.53**	-	.71**	.59**	.27	.52**	.66**	.59**	.89**	.84**	.51**	.18	.06	.52**	.50**	-.02	-.08	.12	.16	.23	.30*	.35*	.21	.33*	.29*	.40**
4	.533**	.66**	.50**	-	.57**	.43**	.73**	.82**	.79**	.64**	.89**	.46**	.35*	.29*	.40**	.39**	-.02	-.15	.34*	.38**	.18	.43**	.24	.37**	.40**	.49**	.38**
5	.54**	.50**	.66**	.41**	-	.33*	.43**	.51**	.50**	.67**	.75**	.55**	.21	.29*	.63**	.51**	.20	.19	.40**	.44**	.30*	.43**	.53**	.47**	.54**	.36*	.46**
6	.05	.22	.35*	.25	.45**	-	.41**	.64**	.78**	.18	.56**	.16	.19	.21	.01	.25	.06	-.15	.23	.34*	.03	.22	.07	.26	.22	.48**	.29
7	.30*	.39**	.58**	.48**	.45**	.26	-	.74**	.81**	.39**	.72**	.34*	.45**	.31*	.13	.31*	-.08	-.16	.31*	.28*	.11	.43**	.09	.30*	.32*	.51**	.41**
8	.38**	.49**	.64**	.55**	.68**	.62**	.53**	-	.96**	.51**	.87**	.37**	.36*	.26	.23	.50**	-.07	-.23	.43**	.47**	.16	.39**	.19	.45**	.40**	.64**	.44**
9	.29	.46**	.64**	.51**	.65**	.83**	.63**	.92**	-	.45**	.86**	.35*	.38**	.30*	.16	.44**	-.04	-.22	.38**	.44**	.13	.40**	.15	.41**	.38**	.64**	.44**
10	.82**	.80**	.91**	.64**	.69**	.28	.54**	.68**	.60**	-	.82**	.61**	.27	.18	.74**	.55**	.13	.09	.16	.24	.40**	.43**	.53**	.32*	.49**	.21	.43**
11	.65**	.76**	.83**	.76**	.74**	.53**	.63**	.88**	.86**	.89**	-	.57**	.39**	.32*	.54**	.57**	.06	-.07	.37**	.44**	.30*	.51**	.40**	.46**	.53**	.53**	.51**
12	.23	.27	.59**	.25	.54**	.63**	.55**	.68**	.75**	.53**	.62**	-	.47**	.58**	.67**	.65**	.25	.32*	.33*	.40**	.47**	.80**	.65**	.48**	.75**	.37**	.68**
13	.07	.07	.29*	.27	.38**	.46**	.50**	.41**	.54**	.22	.36*	.53**	-	.73**	.45**	.55**	.23	.23	.51**	.54**	.47**	.84**	.51**	.62**	.76**	.55**	.56**
14	.29*	.17	.45**	.37*	.53**	.34*	.58**	.34*	.49**	.40**	.46**	.62**	.72**	-	.38**	.45**	.18	.24	.44**	.49**	.32*	.89**	.44**	.51**	.70**	.46**	.54**
15	.43**	.40**	.46**	.28	.40**	.43**	.41**	.40**	.49**	.50**	.50**	.47**	.29*	.47**	-	.65**	.32*	.22	.32*	.47**	.52**	.59**	.74**	.53**	.71**	.28*	.49**
16	.29*	.28	.54**	.32*	.46**	.54**	.38*	.61**	.69**	.47**	.60**	.58**	.36*	.48**	.50**	-	.37**	.29*	.48**	.67**	.61**	.65**	.82**	.71**	.83**	.55**	.73**
17	.49**	.41**	.44**	.35*	.34*	.09	.32*	.25	.26	.50**	.50**	.29*	.14	.48**	.47**	.51**	-	.70**	.22	.36*	.35*	.26	.74**	.37**	.53**	.23	.38**
18	.43**	.35*	.44**	.37*	.34*	.39**	.55**	.36*	.49**	.47**	.48**	.47**	.47**	.65**	.51**	.41**	.48**	-	.20	.29*	.31*	.32*	.70**	.319*	.51**	.01	.32*
19	.17	.10	.24	.14	.36*	.30*	.43**	.49**	.50**	.26	.34*	.50**	.68**	.59**	.26	.39**	.14	.42**	-	.77**	.29*	.50**	.43**	.86**	.66**	.62**	.35*
20	.33*	.47**	.48**	.65**	.47**	.54**	.41**	.68**	.70**	.52**	.73**	.49**	.50**	.46**	.49**	.70**	.34*	.48**	.49**	-	.40**	.56**	.62**	.89**	.78**	.64**	.50**
21	.22	.04	.25	.30	.30*	.46**	.32*	.30*	.44**	.19	.30	.41**	.66**	.68**	.36*	.58**	.28	.48**	.44**	.54**	-	.49**	.61**	.69**	.68**	.17	.46**
22	.22	.20	.51**	.34*	.57**	.56**	.63**	.54**	.69**	.45**	.58**	.84**	.86**	.91**	.47**	.53**	.34*	.59**	.69**	.55**	.67**	-	.63**	.63**	.87**	.54**	.70**
23	.54**	.46**	.60**	.41**	.49**	.51**	.53**	.56**	.64**	.62**	.66**	.60**	.43**	.70**	.76**	.81**	.79**	.78**	.42**	.66**	.58**	.64**	-	.67**	.89**	.38**	.67**
24	.29*	.26	.40**	.47**	.46**	.52**	.45**	.60**	.66**	.39**	.57**	.55**	.76**	.72**	.46**	.69**	.34*	.55**	.74**	.85**	.82**	.78**	.68**	-	.87**	.59**	.53**
25	.40*	.40**	.59**	.48**	.58**	.63**	.59**	.67**	.77**	.59**	.71**	.75**	.74**	.88**	.67**	.78**	.53**	.73**	.68**	.79**	.78**	.89**	.88**	.92**	-	.59**	.73**
26	.23	.14	.60**	.25	.53**	.68**	.36*	.74**	.76**	.47**	.60**	.75**	.38**	.44**	.44**	.68**	.30*	.37*	.41**	.57**	.50**	.60**	.61**	.61**	.70**	-	.63**
27	.26	.16	.55**	.28	.63**	.64**	.39**	.66**	.72**	.43**	.60**	.67**	.50**	.64**	.50**	.75**	.42**	.42**	.44**	.64**	.63**	.70**	.68**	.70**	.78**	.78**	-

Note. Bold = Clinical Sample; 1 = Intrusive; 2 = Rule Breaking; 3 = Aggressive; 4 = Attention Problem; 5 = Thought Problem; 6 = Somatic Complaints; 7 = Withdrawn; 8 = Anxious/Depresses; 9 = Internalizing; 10 = Externalizing; 11 = Problem Score; 12 = Paranoid; 13 = Schizoid; 14 = Schizotypal; 15 = Anti-social; 16 = Borderline; 17 = Histrionic; 18 = Narcissism; 19 = Avoidant; 20 = Dependent; 21 = Obsessive Compulsive; 22 = Cluster A; 23 = Cluster B; 24 = Cluster C; 25 = Total Cluster; 26 = NOS-Depressive; 27 = Passive Aggressive.

* $p < .05$, ** $p < .001$.

Table 9 displays the correlation between ASR syndrome-based scales and ADP IV for both samples. Cluster A is significantly and positively related with broad band scales of internalizing and externalizing behavioral problems for both samples.

At individual PD level, significant positive relationship is apparent between paranoid PD and all other narrow band scales except for somatic complaints. For non-clinical sample, positive relationship is evident between paranoid PD and all narrow band scales except for intrusive, rule breaking and attention problems. Schizoid PD has positive relationship only with intrusive, attention problems, withdrawn, and anxious/depressed narrow band scales for clinical sample. For non-clinical sample a positive relation is apparent between schizoid PD and narrow band scales of aggressive, thought problem, somatic complaints, with drawn, and anxious depressed behavioral problems. For schizotypal PD positive relationship is evident among all narrow band scales of ASR except for rule breaking, aggressive, thought problems, and anxious depressed behavioral problems in case of clinical sample. For non-clinical sample schizotypal PD has significant positive relationship with all narrow band scales except for rule breaking behaviors.

In case of clinical sample, non-significant relationship is apparent between Cluster B and broad band scales of internalizing whereas relationship externalizing behavioral problems was positive and significant. For non-clinical sample this relation was positive and significant.

For Specific PDs of Cluster B, anti-social and borderline PD have significant and positive relationship with all narrow band scales except for somatic and withdrawn behavioral problem. Only exception to this is anxious depressed, which has significant relation only with BPD. Relationship of histrionic and narcissistic PDs are non-significant. For non-clinical sample except for attention problems, a positive relation is evident between anti-social PD and all narrow band scales of ASR. For borderline PD except for rule breaking significant positive relation is apparent for all narrow band PDs. For histrionic PD, a significant positive relationship is apparent for all narrow band scales except for somatic complaints and anxious depressed problems. Narcissistic PD has significant positive relationship with all narrow band scales of ASR.

Cluster C has positive relationship with broad band scales of internalizing and externalizing behavioral problems for both samples. At the level of individual PDs, for clinical sample avoidant PD has significant and positive relationship with attention problems, thought problems, withdrawn, and anxious/depressed. For non-clinical sample, positive relationship is evident for thought Problems, somatic complaints, withdrawn and anxious/depressed behavioral problems. Dependent PD has significant positive relationship with all narrow band ASR scales except for intrusive and aggressive behavioral problem in case of clinical sample. In contrast, for non-clinical sample a positive relationship is apparent between Dependent PD and all narrow band ASR scales. Obsessive compulsive personality disorder also exhibits significant positive relationship with intrusive, rule breaking, and thought problems for clinical sample. For non-clinical sample, positive relationship is observed for thought problems, somatic complaints, withdrawn, and anxious depressed behavioral problem.

For NOS depressive PD significant positive relationship is apparent between all narrow-band scales except for intrusive and rule breaking behavior in of clinical sample. Similarly, for NOS passive aggressive PD significant positive relationship is apparent between all narrow band scales except for somatic complaints in case of clinical sample. For non-clinical sample NOS depressive PD significant positive relationship is apparent between anxious depressed, with drawn, somatic complaints, thought problems, and aggressive behavioral problems. For NOS passive aggressive PD significant positive relationship is apparent between all narrow band scales except for attention problem, intrusive and rule breaking behaviors.

Findings regarding Clusters from PD and board band scales of ASR i.e., internalizing and externalizing behavioral problems are in line with existing literature except Cluster B in case of clinical sample where non-significant relationship is apparent between Cluster B and both broad band scales. At the level of individual PDs as well few non-significant relationships (as specified above) with narrow band scales of ASR are not in expected direction. But keeping in view the limited sample size of pilot study further exploration would be done in main study.

Summary of Pilot Study Findings

The results of pilot study established psychometrics of all the scales (ASR, ABCL, and ADPIV). Furthermore, the convergent and contrasted group validity was established by comparing scores of ASR and ABCL and computing *t* test respectively across both sample. The initial trend of the data further indicated the positive relationship between ADP IV (Cluster level) and ASR (broad band scales). These results established that increase in the PDs would enhance problem behaviors among the adults of both samples. These analysis highlights that the indigenous translated versions could be further analysed for main study.

Discussion

Pilot study was carried out with prime objectives to establish psychometric properties and develop an understanding of relationship trends between PDs and problem behaviors with a smaller sample of clinical ($N = 50$) and non-clinical ($N = 50$) before the main study.

In order to estimate internal consistency of study measures Cronbach alpha was computed. Findings indicated that satisfactory reliabilities for all scales of the study. It can be inferred that the broad band scales (internalizing, externalizing, and total problem) had good to excellent reliabilities whereas the eight narrow band scales had reliabilities ranging from low to excellent. For ADP IV, as well at the levels of clusters, reliability was good but at individual PDs level reliability was low. One of the key reasons for low reliability in this case can be attributed to small sample size (Bujang, Omar, & Baharum, 2018; Button et al., 2013; Samuels, 2015). In addition to this, in almost all cases subscales had less reliability for instance; intrusive behavioral problem in both ASR and ABCL has 6 items. A study conducted in Central Kenya on adolescents using parallel measures i.e., youth self-report and child behavioral checklist had similar findings of relatively low Cronbach coefficients for narrow band scales (Magai, Malik, & Koot, 2018). Diverse reasons can contribute to low internal consistency like number of items in subscales and homogeneity in responses (Smits et al., 2018). For clinical scales, one of the common practices is relying on pre-defined criteria of psychological constructs, which leads to scales that are often homogenous, and though exhibit replicable factor structure but are less internally

consistent that ultimately effects the predictive validity of scales as well (Smits et al., 2018). Considering all these reasons, it was decided to explore this further, with an independent and larger sample size to get a better understanding of underlying reasons behind it.

Correlation between ASR (syndrome) and ABCL for both samples

As established in chapter I, Urdu version of ASR and ABCL were used for the first time with Pakistani sample. So, two approaches were used to furnish evidence of validity at this preliminary stage. One was based on establishing contrasted group validity by comparing both narrow and broad band scales across clinical and non-clinical sample and other approach was based upon classical method of multi trait multi method matrix proposed by Campbell and Fiske (1959) aimed at establishing the convergent evidence of validity.

Findings indicated that for both ASR and ABCL, across narrow and broad band scales, clinical sample scored higher as compared to non-clinical samples except for intrusive problems. Except for narrow band scale of intrusive behavioral problem, findings are consistent with existing body of literature. Newton-Howes et al. (2010) confirmed that clinical sample scores higher on problematic behaviors as compared to non-clinical sample. Various epidemiological studies aiming to establish prevalence of problem behaviors also confirm the differences in pathology between clinical and non-clinical samples (Henry & Crawford, 2005). This furnishes an evidence for contrasted group validity.

Following the guidelines of multi trait multi method matrix proposed by Campbell and Fiske (1959) aimed at establishing the convergent evidence of validity, mono-trait hetero-method (MTHM) correlations were computed. The data obtained from self-report via ASR and informant report via ABCL were compared across broad bands and narrow bands. As suggested by O'Leary-Kelly and Vokurka (1998), value of correlation was significant and different from zero. For broad band scales values of correlation were .88 and .79 for internalizing behavioral problems and .92 and .73 for externalizing behavioral problems for both clinical and non-clinical sample. For narrow band scales values ranged from .61 to .90 for clinical sample and .52 to .82 for non-clinical sample. Based upon this it can be inferred that both scales i.e., ASR and ABCL were assessing similar constructs

thus providing an evidence of convergent validity. The low to moderate values obtained for narrow band scales are also consistent with previous literature. Meta-analytical studies by Achenbach, Krukowski, Dumenci, and Ivanova (2005) revealed a moderate to low correlation between self-report measures and informant measures. They attribute these differences to differences in perception of problems by different individuals. Moreover, researchers argue that different individuals provide diverse information and these differences help in developing a comprehensive picture of the problem (Achenbach, 2006). Exploration of this trend is further needed in main study.

In order to establish contrasted group validity, *t*-test was conducted across clinical and non-clinical sample for ADP IV as well. Significant mean differences were observed at cluster level, where clinical sample scored higher on cluster A and cluster B in comparison to non-clinical sample. Non-significant differences were apparent on cluster C. At the level of individual PDs, clinical sample scored higher on paranoid, schizoid, schizotypal, anti-social, borderline, and avoidant PDs as compared to non-clinical sample. These findings are in line with existing literature. Banerjee, Gibbon, & Huband (2009) argue that personality disorders prevail less in community samples i.e., non-clinical samples and more in clinical setting. Non-significant differences were evident for histrionic, narcissistic, obsessive compulsive PDs which need further exploration in main study. But keeping in view the studies aiming to establish prevalence and socio-demographic differences where such differences are apparent the sample of the pilot study was too less to reach a conclusive decision.

Relationship between Cluster A and ASR Syndrome based scales Scale

To find out the relationship between Cluster A and ASR syndrome-based scale Pearson Product Moment correlation was computed. In case of broad band scale cluster A had positive relation with both internalizing and externalizing behavioral problems. As mentioned earlier (Table 9), at the level of narrow band scales differences were apparent in both clinical and non-clinical samples regarding relationship with cluster A. Taking into account the smaller sample size of pilot study, findings of present research are in line with existing body of literature (Lee, 2017; Tyrer, Gunderson, Lyons, & Mauricio, 1997). Cluster A is marked by presence of odd and eccentric behaviors. A strong relationship is

evident between Cluster A and internalizing behavioral problems like depression in previous researches as well (George, Russell, Piontak, & Odgers, 2017). As presence of cluster A increases the likelihood of relapse in case of depression as well in case of clinical samples. It is attributed to the fact that presence of cluster A features acts as risk factor making individuals more prone to problems like mood disturbance which is a central feature of internalizing behavioral problem. Cluster A has been documented to play a predictive role in onset of affective and mood disorders as well (Kendler, McGuire, Gruenberg, & Walsh, 1995). Furthermore, despite of taking anti-depressant medicine, cluster A presence increase the likelihood of increased perception of stress leading to significant impairment (Candrian et al., 2008; George et al., 2017). Similarly, presence of cluster A in general and paranoid PD in specific has been found to be a strong predictor of aggression which is a key feature of externalizing behavior problems (Berman, Fallon, & Coccaro, 1998). Studies with clinical sample specifically indicate that cluster A emerge as a strong predictor of aggressive behaviors (Lee, 2017). Presence of cluster A is likely to create problems in interpretation of stimuli in surroundings that lead to exaggerated expression of emotions often apparent in the form of externalizing behavioral problems (Gracie et al., 2007).

Relationship between Cluster B and ASR Syndrome Scale

One of the most researched disorder in comparison to all other disorders is cluster B disorders. Within this, two disorders i.e., anti-social personality disorder and borderline personality disorder have received much attention. With respect to broad band scales a significant positive relation of cluster B was apparent with internalizing and externalizing behavioral problem in case of non-clinical sample. Whereas for clinical sample this relation was non-significant in case of internalizing behavioral problem but significant in case of externalizing behavioral problem. With reference to narrow band scales (as summarized in table 5) different trends were apparent for both clinical and non-clinical samples. In case of clinical sample borderline personality disorder had significant positive relationship with all narrow band scales except for somatic complaints and withdrawn behavior problem. Similarly, for anti-social personality disorder, significant relationship was apparent with all narrow band scales except for somatic, withdrawn and anxious depressed problems. Both narcissistic and histrionic PD had non-significant relationship with all narrow band

scales in case of clinical sample. For non-clinical sample anti-social personality disorder had significant positive relationship with all narrow band scales except for attention problems. Similarly, borderline personality disorder had significant positive relationship with all narrow band scales except for Rule breaking behavior. Both histrionic and narcissistic personality disorder had positive relationship with all narrow band scales except for somatic complaints (where histrionic and anxious depressed PD had non-significant relationship).

With few exceptions that can be attribute to smaller sample size and need further exploration in main study most of the findings were in line with existing literature. With reference to cluster B and broad band scales, previous findings also confirm a positive association between the two. Cluster B has been strongly linked with problems like depression and anxiety that constitute internalizing behavioral problems (George et al., 2017). Presence of features of cluster B create vulnerability, where an individual gets overly sensitive to environmental events and perceives them as threatening or as source of potential harm to self. As a consequence, this puts an individual at risk of developing internalizing behavioral problems. Similar reasons have been given with reference to borderline personality disorder which has been strongly linked with depression (Palihawadana, Broadbear, & Rao, 2019). Presence of BPD makes prognosis for depression poor as it alters the course of illness by aggravating feelings of emptiness, self-destructiveness and self-criticism (Lepine, Chignon, & Teherani, 1993). Presence of cluster B has also been linked with behavioral disinhibitions, harming to self and others, acting out tendencies and behavioral disinhibitions which contribute to externalizing behavioral problems (Hayward & Moran, 2007). Researchers associate these with cluster B in general and anti-social personality disorder in particular. Researchers even argue that comorbidity among two is so high that it might be attributed to criterion overlap between the two (Rounsaville, Kranzler, & Ball, 1998). Similarly, a strong relationship has been documented between cluster B and rule breaking behaviors which is attributed to the feature of impulsivity associated with cluster B (Tyrer, Gunderson, Lyons, & Mauricio, 1997).

Relationship between Cluster C and ASR Syndrome Scale

Among all clusters, cluster C had a positive relationship with broad band scale of internalizing and externalizing behavioral problems for both clinical and non-clinical samples. With reference to narrow band scales differences in relationship were observed. For clinical sample, cluster C had positive relationship with rule breaking, attention problem, thought problems, with drawn, and anxious/depressed behavioral problems. Whereas for non-clinical sample except for rule breaking behavior, cluster C had a positive relationship with narrow band ASR Syndrome based subscales.

With exceptions of non-significant relationships (highlighted in table 5) findings were in line with existing literature. Cluster C has been closely linked with patterns like anxiety, depression, somatic complaints, and with-drawn behaviors (Tyrer, Gunderson, Lyons, & Mauricio, 1997). The syndrome-based models are well established empirically yet they are not being commonly employed in clinical settings. For this reason, many researches in the field of clinical psychology have been carried out using disorders described by DSM. Findings indicate that avoidant personality disorder is closely linked with generalized anxiety disorder (again falling on spectrum of internalizing behavioral problems) (Noyes, 2001). Similarly, cluster C is closely linked with panic disorder, specifically dependent personality disorder has shown strong positive relationship with panic disorder (Noyes et al., 2001; Sanderson et al., 1994). Both dependent and avoidant PD have been closely linked with agoraphobia (Hoffart, Thornes, & Hedley, 1995), thus providing a link of association between cluster C and internalizing behavioral problems. Researches have attributed this relationship to “social inhibition”, “emotional guardedness” and “impairment” which cluster C, PD in general and avoidant PD in specific makes an individual prone to, which further increases the chances of developing these problems that cluster under the broader category of internalizing problems (Marques et al., 2012; Verges et al., 2014). Others attribute the association between the two to criterion overlap (Widiger, 1992).

Another significant finding was regarding positive association between Cluster C and broad band scale of externalizing behavioral problems. Though this association is relatively not explored much as cluster C mostly in context of problems like anxiety, phobias, and depression (Verges et al., 2014). One of the probable reasons for this positive relationship is the common feature of “anger and hostility” underlying both (Lizardi;

Dervic, Grunebaum, Burke, Mann, Oquendo, 2007; Fava & Rosenbaum, 1998). Though presence of cluster C traits is likely to make an individual more likely to develop internalizing behavioral problems, but a high degree of comorbidity has been documented between internalizing and externalizing behavioral problems as well (Willner, Gatzke-Kopp & Bray, 2016). So, it can be inferred that presence of Cluster C traits creates vulnerabilities that lead to common vulnerability factors putting an individual at risk of developing both internalizing and externalizing behavioral problems (Yong, Fleming, McCarty, & Catalano, 2014).

In addition to this, looking at pattern of relationships apparent between PDs, some additional conclusions can be drawn. Significant positive relationship was apparent between PDs both at cluster level i.e., Cluster A, B, C, and at the level of individual PDs providing an evidence that high co-morbidity exists in case of PDs. This is consistent and one of the most interesting emerging area in research on personality disorders (Banerjee, Gibbon, & Huband, 2009). Previous researchers refer PDs as set of common conditions that continue for a prolonged course and are associated with lesser outcomes in multiple areas of individual's life. Therefore, the presence of one problematic feature makes an individual vulnerable to develop problems in other areas as well. Consequently, PDs tend to have diffused patterns of co-occurrences. It indicates that a person diagnosed with one PD is at risk of developing other PDs and other dysfunctional personality traits and mental health problems as well. Keeping in account the co-morbidities Tyrer and Johnson (1996) coined the terms of simple PDs, Complex PDs, and Severe PDs. Simple PDs refers to presence of one Personality disorder and leads to relatively better treatment outcomes. Complex on the other hand refers to two or more PDs from different clusters. Severe PD refers to condition where multiple disorders from different clusters are present and they lead to societal disturbance at a gross level.

Conclusion

It can be concluded that findings with reference to PDs at cluster level and broad band scales were in line with existing literature (including reliabilities, evidences for validity, and relationships between PDs and problem behaviors). Whereas, at the level of individual PDs and narrow band scales few reliabilities were low and non-significant

differences and relationships were also apparent. Keeping in view these findings, it was decided to explore these aspects more in main study with larger sample for both clinical and non-clinical groups.

Chapter IV

Main Study: Objectives and Research Design

This Chapter intends to examine the relationship between personality disorders, ASR, and ABCL. To do so, following objectives were formulated.

Objectives

1. To validate the Urdu versions of ASR and ABCL.
 - a. To test the factor structure of ASR and ABCL for both samples.
 - b. To establish evidence of convergent validity by comparing information across ASR (self-report) and ABCL (Informant report using Mono-Trait Multi-Method Matrix; MTMM) for both samples.
 - c. To establish evidence for contrasted group validity by comparison across narrow and broad band scales of ASR and ABCL for both samples.
2. To validate Urdu version of ADP –IV.
 - a. To test the factor structure of ADP IV for both samples.
 - b. To establish evidence for contrasted group validity by comparing both samples at cluster level and individual PDs across ADP IV.
3. To establish prevalence across broad band problems (externalizing, internalizing, and total problem behavior) and narrow band problems (anxious depressed, withdrawn, somatic complaints, thought problems, attention problems, rule breaking, aggressive behavior, and intrusive problems) among adults on ASR and ABCL for both samples.
4. To explore the prevalence of personality disorders among adults across both samples.
5. To examine differences across broad band problems (internalizing, externalizing, and total problem behavior) and across narrow band problems (anxious depressed, withdrawn, somatic complaints, thought problems, attention problems, rule breaking, aggressive behavior, and intrusive problems) among adults on ASR and ABCL both samples.

6. To examine differences across personality pathology among adults across both samples.
7. To explore the relationship between personality disorders and broad band problems (internalizing, externalizing, and total problem behavior) and narrow band problems (anxious depressed, withdrawn, somatic complaints, thought problems, attention problems, rule breaking, aggressive behavior, and intrusive problems) of ASR among adults for both samples.
8. To test the moderating role of gender, age, and adaptive functioning in relation between personality disorders and broad band problems (internalizing, externalizing, and total problem behaviors) and narrow band problems (thought and attention) of ASR across both samples.
9. To explore the role of demographic variables (age, gender, suicide attempts, and education) across study variables for both samples.

In order to meet the objectives stated above, hypotheses were formulated based on the literature in Chapter I. All the hypotheses cover predictive role of PDs for problem behaviors and group differences.

Hypotheses

1. Clinical sample will score higher on broad band scales (internalizing, externalizing, and total problem behavior), narrow band scales (anxious depressed, withdrawn, somatic complaints, thought problems, attention problem, rule breaking, aggressive behavior, and intrusive behavior problem) of ASR and ABCL, and personality disorders as compared to non-clinical sample.
2. There will be a positive relationship on scores obtained on broad band scales (internalizing, externalizing, and total problem behavior) and narrow band scales (anxious depressed, withdrawn, somatic complaints, thought problems, attention problem, rule breaking, aggressive behavior, and intrusive behavior problem) across ASR and ABCL for both samples.
3. Paranoid, schizoid, and schizotypal personality disorders (Cluster A) will positively predict broad band scales of ASR (internalizing, externalizing, and total problem behavior) for both samples.

4. From Cluster B anti-social and borderline personality disorders will positively predict broad band scales of ASR (internalizing, externalizing, and total problem behavior for both samples).
5. From Cluster C, dependent personality disorders will positively predict broad band scales of ASR (internalizing, externalizing, and total problem behavior for both samples).
6. Paranoid, schizoid, and schizotypal personality disorders (Cluster A) will positively predict two narrow band scales of ASR (attention and thought problems) for both samples.
7. Borderline personality disorder and antisocial personality disorder of cluster B will positively predict all narrow band scales of ASR (anxious depressed, withdrawn, somatic complaints, thought problems, attention problems, rule breaking, aggressive behavior, and intrusive behavioral problems) for both samples.
8. Dependent personality disorder of Cluster C will positively predict all narrow band scales of ASR (anxious depressed, withdrawn, somatic complaints, thought problems, attention problems, rule breaking, aggressive behavior, and intrusive behavioral problems) for both samples.
9. Males will score higher on broad band syndrome scale of ASR and ABCL (externalizing behavioral problems) and narrow band scales (aggressive behavior, rule breaking, intrusive behavioral problem) as compared to females for both samples.
10. Females will score higher on broad band syndrome scale of ASR and ABCL (internalizing behavioral problems) and narrow band scales (anxious depressed, withdrawn behavior, and somatic complaints) of ASR and ABCL as compared to males for clinical sample.
11. Males will score higher on personality disorders as compared to females for clinical sample.
12. Young adults will score higher on broadband scale of externalizing behavioral problem (for both ASR and ABCL) and narrow band scales of aggressive, rule breaking, and intrusive behavioral problems as compared to late adults for both samples.

13. Late adults will score higher on broad band scale of internalizing behavioral problems (for both ASR and ABCL) as compared to young adults on both samples.
14. Young adults will score higher on anti-social personality disorder of ADP IV as compared to late adults for both samples.
15. Individuals with lower level of education will score higher on broad band scales (internalizing, externalizing, and problem behavior) of ASR and ABCL as compared to individuals with higher level of education for both samples.
16. Individuals with lower level of education will score higher on narrow band scales (anxious depressed, withdrawn, somatic complaints, thought problems, attention problem, rule breaking, aggressive behavior, and intrusive behavior problems) on ASR and ABCL as compared to individuals with higher level of education for both samples.
17. Individuals with a previous history of suicide will score higher on Problem behavior (narrow and broad band, for both ASR and ABCL) and personality disorders (at individual and cluster level).

Instruments

Details of the instruments (ASR, ABCL, and ADP IV) used in the study have been mentioned in Chapter II (page number, 69-72).

Sample

Employing the technique of purposive convenience sampling, data was collected from clinical ($N = 408$, $M = 37.17$, $SD = 11.21$) and non-clinical ($N = 487$, $M = 33.81$, $SD = 11.74$) sample with age ranges between 18-59 years. Inclusion criteria for the main study was like pilot study (see Chapter III, page number, 76)

Procedure

The study participants were provided with both verbal and written information explaining the objectives of the study and their right to anonymity and confidentiality. Participants were asked to sign informed and written consent. After seeking formal permission from hospital administration data was collected from outpatient departments of hospitals of Islamabad and Rawalpindi. Clinical data was obtained from Psychiatric units of Pakistan Institute of Medical Sciences, Military Hospital, Capital Development

Authority Hospital, and Punjab institute of Mental Health. However, community was approached for non-clinical sample. Participants were formally briefed about the purpose of the study and informed consent was sought from them. Individuals were assured about the confidentiality of their responses. Rest of the procedure for illiterate individuals was similar to the pilot study (see Chapter III, page number, 72). Following the ethical protocol, findings were shared with the non-clinical sample. It was ensured that proper referral (which included the counseling services of National Institute of Psychology, from where ethical approval of present research was undertaken) was provided for the individuals whose score was within the range of borderline and clinical for the non-clinical sample. In order to assess the demographic characteristics of the sample frequencies and percentages were computed.

Table 10

Demographics Characteristics for Clinical (N = 408) and Non-Clinical (N = 487) Sample

Demographics	Clinical	Non-Clinical
	<i>f</i> (%) (N = 408)	<i>f</i> (%) (N = 487)
Gender		
Male	235 (57.59)	274 (56.3)
Female	173 (42.40)	213 (43.7)
Age		
18-35	204 (50)	349 (71.7)
36-59	204 (50)	138 (28.3)
Education		
Never Went to School	72 (17.6)	109 (22.4)
Primary	73 (17.8)	53 (10.9)
Matric	96 (23.52)	134 (27.5)
Intermediate	58 (14.21)	82 (16.8)
Graduation	53 (12.99)	72 (14.8)
Masters/M.Phil. & Above	56 (13.7)	37 (7.6)
Marital Status		
Never Married/Single	88 (21.56)	232 (47.6)
Married living with Spouse	272 (66.66)	191 (39.2)
Married but not living with Spouse/Divorced/Widowed	48 (11.76)	64 (13.14)
Any Psychiatric medication		
Yes	408 (100)	-
No	-	487 (100)
Past Suicide Attempt		
Not Attempted	249 (61)	435 (89.3)
Attempted	159 (39)	52 (10.7)

Table 10 indicates the demographic distribution across both samples. Not much differences were apparent in terms of gender and education. However, individuals in early adulthood were higher in non-clinical and late adulthood was higher in clinical sample. Similarly, married individuals living with spouse had higher percentage in clinical and single individual had higher percentage in non-clinical sample. Lastly, 10.7 % of non-clinical sample reported attempt of suicide which is quite higher considering the nature of the group. In contrast, 39% reported suicide attempt for clinical adults.

Results for psychometric properties

In order to furnish evidence for the construct validity of the measure (objective 1 & 2) following analysis were carried out. To account for the non-normal distribution of data WLSMV was used as an estimator (Muthen & Muthen, 1998). Confirmatory Factor Analysis (CFA) was carried out with an objective to identify and test the eight-syndrome model initially derived from the factor analyses of self-ratings of behavioral, emotional, and social problems (Achenbach & Rescorla, 2003) of adults on both clinical and non-clinical sample. The prior statistical assumption that a sample greater 200 provides enough power to test the factor structure was taken as a general guide for estimating the sample power (Hoe, 2008; Kyriazos, 2018). Using Mplus, eight factors were identified including anxious depressed, withdrawn, somatic, thought problems, attention problems, aggressive behaviors, rule breaking and intrusive behavioral problems. All problems were derived as latent variables (factors) and their respective items were considered observed variables. .25 was considered a criterion for acceptable factor loadings (Field, 2009, Ivanova et al., 2014).

CFA were analyzed using two levels of Fit Indices that includes Absolute Fit Indices and Comparative Baseline Index. Absolute fit indices imply that how well a model fits without any comparison with the other model, it has been considered as basic indication that how well an already established theory fits the existing data. The indices include chi-square test and Root Mean square Error of Approximation (RMSEA) (Joreskog & Sorbom, 1993). Considering work of Yu and Muthen (2002), RMSEA was selected as primary index of model fit as it is considered as a best performing model fit index for WLSMV. The value of RMSEA between .05-.07 indicate good to moderate model fit for ordered categorical variables. On the other hand, comparative fit indices measure chi-square in comparison to

baseline model and assumes that all variables are uncorrelated. These indices involve Tucker-Lewis Coefficient (TLI) and Comparative Fit Indices (CFI). For present analysis, these indicators were considered secondary to RMSEA. However, Hu and Bentler (1999) considered CFI and TLI values greater than .95 as indicator of good fit, but Marsh et al. (2004) considered it to be too stringent for complex factors models in applied research. So, a less stringent criteria of .80 to .90 was considered to indicate acceptable model fit, and $\geq .90$ to indicate good model fit (Ivanova et al., 2014).

The eight-syndrome model proposed by Achenbach and Rescorla (2003) for ASR and ABCL was tested. Following the proposed assumptions all factors were modeled as first order correlated factors, with no hierarchical relation between the factors assumed. In order to analyze the validity of ASR and ABCL Urdu Version, CFA was carried out for both samples using MPlus. The model fit indices for both scales and samples are represented in Table 11. However, the factor loadings of both scales are represented in separate tables (Table 12 &13 respectively).

Table 11

Confirmatory Factor Analysis for ASR and ABCL Eight Syndrome Model across Clinical (N = 487) and Non-Clinical (N = 408) Sample

Scales	Sample	TLI	CFI	RMSEA
ASR	Non-Clinical	.90	.90	.02
	Clinical	.94	.94	.03
ABCL	Non-Clinical	.87	.89	.03
	Clinical	.93	.93	.04

Table 11 indicates good model fit indices in case of ASR for both clinical ($RMSEA = .02$, $CFI = .90$, & $TLI = .90$) and non-clinical ($RMSEA = .03$, $CFI = .94$, & $TLI = .94$) sample.

Similarly, acceptable to good model fit indices were observed for ABCL across clinical ($RMSEA = .04$, $CFI = .93$, & $TLI = .93$) and non-clinical ($RMSEA = .03$, $CFI = .89$, & $TLI = .87$) samples. As $RMSEA$ was taken as primary index of model fit (Ru & Muthen, 2002) for the present study, so fit indices for non-clinical sample were taken as acceptable fit. In case of ASR, the factors loadings of narrow band scales ranged between .31 to .98 accounting for 9 % to 97 % for both samples. The details of the factor loadings and variance of ASR are in Table 12. For ABCL, the factor loadings of narrow band scales ranged

between .25 to .98 accounting for 6 % to 97 % for both samples. The details of the factor loadings and variance for ABCL are represented in Table 13.

Table 12

Factor Loadings of ASR Eight Syndrome Model across Clinical (N = 408) and Non-Clinical (N = 487) Sample

Items	Statements	Non. Cli	Clinical	Items	Statements	Non. Cli	Clinical
		β (R^2)	β (R^2)			β (R^2)	β (R^2)
Anxious Depressed				116	Easily Upset	.71 (.50)	.88 (.78)
12	Lonely	.69 (.48)	.83 (.69)	118.	Impatient	.48 (.23)	.64 (.40)
13	Confused	.75 (.56)	.89 (.80)	Rule Breaking			
14	Cries a lot	.59 (.35)	.79 (.62)	6	Uses Drugs	.51 (.26)	.63 (.40)
22	Worries about future	.58 (.33)	.64 (.41)	20	Damages own things	.59 (.33)	.93 (.86)
31	Fears doing bad	.61 (.37)	.82 (.67)	23	Breaks rules	.62 (.39)	.81 (.66)
33	Feels unloved	.75 (.56)	.82 (.68)	26	Lacks guilt	.47 (.22)	.51 (.27)
34	Others out to get him/her	.66 (.44)	.73 (.53)	39	Bad friends	.57 (.32)	.60 (.36)
35	Feels worthless	.69 (.48)	.80 (.62)	41	Impulsive	.59 (.35)	.79 (.63)
45	Nervous, tense	.73 (.53)	.88 (.76)	43	Lying, cheating	.64 (.41)	.54 (.29)
47	lacks self-Confidence	.52 (.27)	.50 (.24)	76	Irresponsible	.63 (.40)	.78 (.61)
50	Fearful, anxious	.73 (.53)	.94 (.89)	82	Steals	.82 (.68)	.71 (.51)
52	Feels too guilty	.45 (.20)	.71 (.50)	90	Gets drunk	.62 (.38)	.66 (.44)
71	Self-Conscious	.39 (.15)	.56 (.31)	92	Trouble with law	.84 (.70)	.67 (.45)
91	Suicidal thoughts	.72 (.53)	.73 (.54)	114	Fails to pay debt	.64 (.41)	.78 (.60)
103	Unhappy, sad	.81 (.66)	.94 (.89)	117	Trouble with law	.71 (.51)	.71 (.51)
107	Can't succeed	.72 (.52)	.92 (.84)	112	Fails to pat debts	.51 (.30)	.72 (.52)
112	Worries	.54 (.30)	.68 (.47)	Intrusive			
113	Worries about r/s with opp. sex	.63 (.39)	.56 (.31)	07	Brags	.53 (.28)	.60 (.36)
Withdrawn				19	Demands attention	.60 (.37)	.85 (.58)
25	Doesn't get along	.66 (.44)	.89 (.74)	74	Showing off	.63 (.40)	.40 (.16)
30	Poor relations with opp. sex	.44 (.19)	.43 (.19)	93	Talks too much	.31 (.09)	.71 (.51)
42	Rather be alone	.59 (.35)	.79 (.62)	94	teases a lot	.60 (.36)	.62 (.39)
48	Not liked	.71 (.51)	.64 (.42)	104	Loud	.59 (.35)	.68 (.47)
60	S60 Enjoys little	.58 (.34)	.81 (.66)	Attention Problems			
65	Refuses to talk	.72 (.52)	.88 (.78)	01	Forgetful	.35 (.12)	.48 (.23)
67	Trouble making friends	.63 (.40)	.85 (.73)	08	Can't concentrate	.51 (.26)	.77 (.60)
69	Secretive	.35 (.12)	.43 (.18)	11	Too dependent	.64 (.41)	.80 (.63)
111	Withdrawn	.61 (.37)	.77 (.59)	17	Daydreams	.54 (.29)	.48 (.24)
Thought Problems				53	Trouble Planning	.68 (.47)	.86 (.73)
9	Can't get mind off thoughts	.46 (.21)	.65 (.43)	59	Fails to finish	.65 (.42)	.85 (.72)
18	Harms self	.69 (.48)	.76 (.58)	61	Poor work	.67 (.40)	.88 (.77)
36	Accident-prone	.85 (.72)	.78 (.61)	64	Trouble setting	.67 (.45)	.85 (.72)
40	Hears sounds, voices	.90 (.81)	.62 (.39)	78	Trouble making dec.	.59 (.35)	.72 (.52)
46	Twitching	.74 (.55)	.66 (.44)	101	Skips job	.57 (.32)	.73 (.56)
63	Prefers older people	.59 (.34)	.33 (.11)	102	Lacks energy	.62 (.38)	.85 (.72)
66	Repeats acts	.75 (.56)	.43 (.18)	105	Disorganized	.62 (.38)	.77 (.47)
70	Sees things	.61 (.15)	.48 (.23)	108	Loses Things	.57 (.33)	.80 (.64)
84	Strange behavior	.76 (.58)	.80 (.65)	119	Not good at details	.57 (.33)	.77 (.59)
85	Strange ideas	.66 (.44)	.62 (.39)	121	Late for appointment	.44 (.20)	.48 (.23)
Aggressive Behavior				Somatic Problems			
3	Argues	.34 (.11)	.45 (.20)	51	Feels dizzy	.85 (.72)	.98 (.97)
5	Blames others	.58 (.33)	.64 (.41)	54	Tired without reason	.92 (.58)	.88 (.78)
16	Mean to others	.68 (.46)	.67 (.45)	56a	Aches, pain	.81 (.31)	.87 (.76)
28	Gets along badly with family	.68 (.46)	.87 (.76)	56b	Headaches	.68 (.57)	.79 (.62)
37	Gets in fights	.60 (.36)	.72 (.52)	56c	Nausea, feels sick	.92 (.57)	.76 (.59)
55	Mood swings	.58 (.33)	.67 (.44)	56d	Eye Problems	.80 (.43)	.32 (.14)
57	Attacks people	.70 (.50)	.71 (.50)	56e	Skin Problems	.67 (.31)	.43 (.19)
68	Screams a lot	.61 (.38)	.71 (.50)	56f	Stomach-aches	.70 (.33)	.74 (.54)
81	Changeable behavior	.60 (.36)	.82 (.69)	56g	Vomiting	.88 (.53)	.89 (.78)
86	Stubborn, Irritable	.70 (.46)	.87 (.77)	56h	Heart pounding	.90 (.55)	.82 (.68)
87	Mood changes	.68 (.46)	.90 (.79)	56i	Numbness	.94 (.61)	.87 (.75)
95	Hot temper	.58 (.33)	.82 (.67)	100	Trouble Sleeping	.75 (.39)	.57 (.50)
97	Threatens people	.70 (.50)	.71 (.50)				

Table 13

Factor Loadings of ABCL Eight Syndrome Model across Clinical (N = 408) and Non-Clinical (N = 487) Sample

Items	Statements	Non. Cli	Clinical	Items	Statements	Non. Cli	Clinical
		β (R^2)	β (R^2)			β (R^2)	β (R^2)
Anxious Depressed				Rule Breaking			
12	Lonely	.55 (.30)	.59 (.35)	06	Uses drugs	.78 (.61)	.38 (.09)
14	Cries a lot	.59 (.35)	.49 (.23)	23	Breaks Rules	.30 (.09)	.98 (.97)
31	Fears doing bad	.25 (.06)	.46 (.21)	26	Lacks guilt	.82 (.68)	.91 (.82)
33	Feels unloved	.62 (.38)	.69 (.47)	39	Bad Friends	.73 (.57)	.56 (.31)
34	Others out to get her	.57 (.30)	.56 (.31)	41	Impulsive	.75 (.57)	.85 (.74)
35	Feels worthless	.72 (.57)	.49 (.24)	43	Lying, Cheating	.26 (.07)	.89 (.79)
45	Nervous, tense	.63 (.32)	.84 (.70)	76	Irresponsible	.55 (.44)	.81 (.65)
47	Lacks self-confidence	.57 (.36)	.60 (.35)	82	Steals	.66 (.30)	.82 (.67)
50	Fearful, anxious	.44 (.23)	.60 (.36)	90	Gets Drunk	.61 (.37)	.67 (.44)
52	Feels too guilty	.44 (.20)	.89 (.079)	92	Trouble with the law	.42 (.17)	.71 (.50)
71	Self-conscious	.73 (.54)	.88 (.77)	114	Fails to pay debt	.72 (.52)	.25 (.06)
103	Unhappy, sad	.69 (.49)	.91 (.83)	117	Trouble managing money	.53 (.28)	.34 (.12)
107	Can't succeed	.79 (.60)	.81 (.66)	122	Trouble keeping job	.61 (.37)	.72 (.52)
112	Worries	.67 (.46)	.29 (.08)	Intrusive			
Withdrawn				07	Braggs	.65 (.42)	.82 (.66)
25	Doesn't get along	.26 (.06)	.72 (.52)	19	Demands attention	.75 (.57)	.29 (.08)
30	Poor relations with opposite sex	.71 (.51)	.65 (.43)	74	Showing off, Clowning	.82 (.68)	.88 (.78)
42	Rather be alone	.62 (.38)	.78 (.55)	93	Talks too much	.82 (.67)	.48 (.25)
48	Not liked	.77 (.59)	.78 (.61)	94	Teases a lot	.78 (.62)	.83 (.77)
60	Enjoys little	.55 (.27)	.89 (.79)	104	Loud	.58 (.34)	.38 (.09)
65	Refuses to talk	.71 (.38)	.88 (.77)	Attention Problems			
67	Trouble making friends	.72 (.51)	.67 (.45)	01	Forgetful	.73 (.54)	.82 (.67)
69	Secretive	.49 (.26)	.75 (.57)	08	Can't concentrate	.79 (.63)	.29 (.08)
111	Withdrawn	.68 (.50)	.79 (.62)	11	Too dependent	.51 (.26)	.88 (.77)
Thought Problems				13	Confused	.54 (.29)	.48 (.25)
9	Can't get mind off thoughts	.54 (.29)	.95 (.90)	17	Daydreams	.76 (.57)	.83 (.68)
18	Harms self	.76 (.58)	.54 (.30)	53	Trouble planning	.77 (.59)	.38 (.14)
40	Hears sounds, voices	.59 (.35)	.74 (.54)	59	Fails to finish	.56 (.32)	.82 (.66)
66	Repeats acts	.66 (.44)	.73 (.54)	61	Poor work performance	.70 (.50)	.66 (.44)
70	Sees things	.54 (.29)	.72 (.51)	64	Trouble setting priorities	.70 (.50)	.32 (.10)
80	Stares blankly	.35 (.12)	.55 (.30)	78	Trouble making decisions	.29 (.08)	.40 (.16)
84	Strange behavior	.45 (.20)	.28 (.08)	96	Lacks initiative	.68 (.46)	.47 (.22)
85	Strange ideas	.66 (.44)	.86 (.75)	101	Skips job	.45 (.20)	.62 (.38)
91	Suicidal thoughts	.66 (.44)	.58 (.34)	102	Lacks energy	.51 (.26)	.25 (.06)
Aggressive Behavior				105	Disorganized	.29 (.08)	.36 (.13)
03	Argues	.25 (.06)	.87 (.75)	108	Loses things	.74 (.55)	.25 (.06)
05	Blames others	.65 (.42)	.87 (.76)	119	Not good at details	.68 (.47)	.38 (.16)
16	Mean to others	.76 (.59)	.84 (.70)	121	Late for appointments	.61 (.37)	.72 (.52)
28	Gets along badly with family	.64 (.41)	.73 (.54)	Somatic Complaints			
37	Gets in to fights	.70 (.50)	.66 (.44)	51	Feels dizzy	.62 (.39)	.81 (.64)
55	Mood swings	.57 (.33)	.66 (.43)	54	Tired without reason	.66 (.44)	.31 (.11)
57	Attacks people	.70 (.50)	.60 (.37)	56a	Aches, pains	.81 (.67)	.76 (.78)
68	Screams a lot	.60 (.36)	.54 (.29)	56b	Headaches	.62 (.38)	.89 (.78)
81	Changeable behavior	.78 (.62)	.77 (.59)	56c	Nausea, feels sick	.84 (.71)	.66 (.43)
86	Stubborn, sullen, irritable	.55 (.30)	.81 (.66)	56d	Eye problems	.84 (.71)	.79 (.43)
87	Mood changes	.60 (.36)	.54 (.29)	56e	Skin problems	.69 (.48)	.75 (.56)
95	Hot tempered	.77 (.60)	.91 (.82)	56f	Stomach-aches	.92 (.86)	.66 (.44)
97	Threatens people	.76 (.59)	.88 (.78)	56g	Vomiting	.82 (.67)	.90 (.81)
113	Sulks	.68 (.46)	.62 (.39)				
116	Easily upset	.77 (.59)	.57 (.32)				
118	Impatient	.51 (.26)	.69 (.48)				

Based upon the values of fit indices (Table 11) and factor loadings of ASR and ABCL (Table 12 & 13 respectively), it can be inferred that for both samples' values indicated a good model fit thus providing evidence for confirmation of eight-syndrome factor structure for ASR and ABCL.

In order to analyze the validity of ADP-IV Urdu Version, CFA was carried out on both samples using Mplus. CFA was carried out with an objective to identify and test the DSM IV criteria of Personality Disorders in ADP IV Urdu Version. Using Mplus, five factors were identified separately including the three clusters and two NOS categories separately. All personality disorders were derived as latent variables (factors) and their respective items were considered observed variables. .25 was considered a criterion for acceptable factor loadings (Field, 2009). Rest of the criterion for model fit indices were similar to ASR and ABCL (as mentioned earlier).

Table 14

Confirmatory Factor Analysis for ADP IV across Clinical (N = 408) and Non-Clinical (N = 487) Sample

ADP IV	Model	TLI	CFI	RMSEA
Cluster A	Non-Clinical	.94	.94	.05
	Clinical	.91	.92	.04
Cluster B	Non-Clinical	.93	.93	.04
	Clinical	.91	.91	.03
Cluster C	Non-Clinical	.91	.92	.05
	Clinical	.92	.93	.03
NOS-Dependent	Non-Clinical	.96	.98	.06
	Clinical	.97	.98	.06
NOS-Passive Aggressive	Non-Clinical	.96	.97	.04
	Clinical	.94	.96	.05

Table 14 indicates fit indices of CFA models of ADP IV Urdu Version for both samples. For Cluster A, model fit indices indicate a good model fit for clinical ($RMSEA = .04$, $CFI = .92$, & $TLI = .91$) and non-clinical ($RMSEA = .05$, $CFI = .94$ & $TLI = .94$) samples.

For Cluster B, model fit also indices indicates a good model fit for both clinical ($RMSEA = .03$, $CFI = .91$, & $TLI = .91$) and non-clinical ($RMSEA = .04$, $CFI = .93$, & $TLI = .93$) samples.

For Cluster C, model fit indicates a good model fit for clinical ($RMSEA = .03$, $CFI = .93$, and $TLI = .92$) and non-clinical ($RMSEA = .05$, $CFI = .92$, and $TLI = .91$)

NOS-Depressive PD also indicates a good fit for clinical ($RMSEA = .06$, $CFI = .98$ and $TLI = .97$) as well as non-clinical ($RMSEA = .06$, $CFI = .98$, and $TLI = .96$).

Similarly, NOS passive aggressive PD, also indicates a good model fit for clinical (RMSEA = .05, CFI = .96, and TLI = .94) and non-clinical (RMSEA = .04, CFI = .97, and TLI = .96) sample.

Factor loadings across all clusters of ADP IV are summarized in subsequent tables (Table 15, 16, 17, 18, & 19). For Cluster A, factor loadings ranged from .26 to .69 accounting for 6 % to 47 % across both samples (see Table 15). For Cluster B, factor loadings ranged from .32 to .67 accounting for 10 % to 45 % across both samples (see Table 16). For Cluster C, factor loadings ranged from .34 to .70 accounting for 11 % to 49 % across both samples (see Table 17).

Table 15

Factor Loadings of ADP IV Cluster A across Clinical (N = 408) and Non-Clinical (N = 487) Sample

S.no	Scale / Items	Non-Clinical (N = 487)	Clinical (N = 408)
		B (R ²)	B (R ²)
Paranoid Personality Disorder			
1.	T1	.53 (.29)	.58 (.34)
2.	T13	.57 (.33)	.58 (.34)
3.	T25	.39 (.15)	.35 (.12)
4.	T37	.63 (.40)	.71 (.51)
5.	T49	.63 (.39)	.62 (.38)
6.	T61	.50 (.25)	.46 (.21)
7.	T73	.63 (.40)	.56 (.32)
Schizoid Personality Disorder			
8.	T2	.46 (.21)	.42 (.17)
9.	T14	.63 (.40)	.59 (.35)
10.	T26	.26 (.06)	.28 (.07)
11.	T38	.50 (.26)	.43 (.19)
12.	T50	.26 (.06)	.31 (.09)
13.	T62	.41 (.16)	.48 (.23)
14.	T74	.58 (.33)	.53 (.28)
Schizotypal Personality Disorder			
15.	T3	.47 (.22)	.45 (.21)
16.	T15	.41 (.17)	.42 (.17)
17.	T27	.54 (.30)	.54 (.29)
18.	T39	.53 (.28)	.48 (.23)
19.	T51	.69 (.47)	.69 (.47)
20.	T63	.60 (.36)	.63 (.39)
21.	T75	.67 (.44)	.66 (.43)
22.	T50	.27 (.07)	.47 (.31)
23.	T85	.62 (.38)	.59 (.34)

Table 16

Factor Loadings of ADP IV Cluster B across Clinical (N = 408) and Non-Clinical (N = 487) Sample

S.no	Scale / Item	Non-Clinical (N = 487)	Clinical (N = 408)
		β (R ²)	β (R ²)
Anti-Social Personality Disorder			
1	T4	.46 (.22)	.43 (.18)
2	T16	.56 (.32)	.55 (.30)
3	T28	.61 (.37)	.60 (.36)
4	T40	.63 (.40)	.62 (.39)
5	T52	.65 (.43)	.60 (.36)
6	T64	.60 (.36)	.60 (.35)
7	T76	.55 (.30)	.56 (.31)
8	T86	.63 (.39)	.57 (.32)
Borderline Personality Disorder			
9	T5	.35 (.13)	.32 (.10)
10	T17	.56 (.32)	.52 (.27)
11	T29	.67 (.45)	.61 (.37)
12	T41	.58 (.34)	.52 (.27)
13	T53	.53 (.29)	.51 (.26)
14	T65	.67 (.45)	.62 (.39)
15	T77	.62 (.39)	.61 (.38)
16	T87	.61 (.37)	.57 (.32)
17	T92	.60 (.35)	.59 (.35)
18	T94	.63 (.40)	.58 (.34)
Histrionic Personality Disorder			
19	T6	.41 (.18)	.35 (.12)
20	T18	.48 (.24)	.50 (.25)
21	T30	.65 (.43)	.60 (.36)
22	T42	.58 (.34)	.55 (.30)
23	T54	.58 (.34)	.57 (.23)
24	T66	.64 (.41)	.64 (.41)
25	T78	.48 (.23)	.45 (.20)
26	T88	.49 (.24)	.47 (.22)
Narcissistic Personality Disorder			
27	T7	.42 (.17)	.45 (.20)
28	T19	.60 (.36)	.60 (.36)
29	T31	.52 (.27)	.56 (.32)
30	T43	.65 (.42)	.63 (.40)
31	T55	.55 (.31)	.53 (.28)
32	T67	.55 (.30)	.51 (.26)
33	T79	.35 (.12)	.33 (.10)
34	T89	.55 (.30)	.52 (.27)
35	T93	.33 (.11)	.33 (.11)

Table 17

Factor Loadings of ADP IV Cluster C across Clinical (N = 408) and Non-Clinical (N = 487) Sample

s.no	Scale / Item	Non-Clinical (N = 487)	Clinical (N = 408)
		β (R^2)	β (R^2)
Avoidant Personality Disorder			
1	T8	.56 (.31)	.59 (.35)
2	T20	.51 (.19)	.49 (.24)
3	T32	.45 (.29)	.44 (.19)
4	T44	.51 (.45)	.52 (.27)
5	T56	.66 (.43)	.66 (.44)
6	T68	.54 (.29)	.54 (.29)
7	T80	.52 (.27)	.50 (.25)
Dependent Personality Disorder			
8	T9	.41 (.17)	.34 (.11)
9	T21	.43 (.26)	.44 (.19)
10	T33	.54 (.21)	.47 (.22)
11	T45	.67 (.44)	.70 (.49)
12	T57	.60 (.36)	.57 (.33)
13	T69	.55 (.30)	.50 (.26)
14	T81	.46 (.21)	.35 (.12)
15	T90	.49 (.24)	.46 (.24)
Obsessive Compulsive Personality Disorder			
16	T10	.47 (.23)	.47 (.22)
17	T22	.51 (.20)	.49 (.22)
18	T34	.46 (.26)	.45 (.20)
19	T46	.51 (.43)	.51 (.27)
20	T58	.39 (.16)	.36 (.13)
21	T70	.47 (.22)	.48 (.22)
22	T82	.52 (.27)	.52 (.28)
23	T91	.62 (.39)	.59 (.35)

Lastly, factor loadings of both NOS depressive and passive aggressive PDs are mentioned in Table 18 and 19 respectively. For NOS- depressive, factor loadings ranged from .52 to .81 accounting for 27 % to 68 % across both samples (see Table 18). For NOS- passive aggressive factor loadings ranged from .37 to .76 accounting for 14 % to 58 % across both samples (see Table 19).

Table 18

Factor Loadings of ADP IV NOS-Depressive across Clinical (N = 408) and Non-Clinical (N = 487) Sample

S.no	Items	Non-Clinical (N = 487)	Clinical (N = 408)
		β (R^2)	β (R^2)
1	T11	.67 (.45)	.64 (.41)
2	T23	.75 (.57)	.74 (.54)
3	T35	.72 (.53)	.73 (.53)
4	T47	.81 (.66)	.79 (.63)
5	T59	.63 (.39)	.59 (.35)
6	T71	.79 (.63)	.74 (.56)
7	T83	.59 (.35)	.52 (.27)

Table 19

Factor Loadings of ADP IV NOS Passive Aggressive across Clinical (N = 408) and Non-Clinical (N = 487) Sample

s.no	Items	Non-Clinical (N = 487)	Clinical (N = 408)
		β (R^2)	β (R^2)
1	T12	.40 (.16)	.42 (.18)
2	T24	.66 (.44)	.65 (.43)
3	T36	.45 (.21)	.47 (.22)
4	T48	.52 (.28)	.53 (.28)
5	T60	.74 (.55)	.76 (.58)
6	T72	.76 (.58)	.73 (.53)
7	T84	.40 (.15)	.37 (.14)

The CFA analysis indicated acceptable to good fit model for all scales of the study. These results (Table 11- Table 19) further illustrates the factor loadings of narrow band of both ASR and ABCL as well as Cluster level factor loadings of ADP IV across both samples.

Therefore, to further establish internal consistency (homogeneity) of all the scales item-total correlation was computed. The detailed tables are attached in Appendices (see Appendix D) and illustrates the item total correlation of all the items for ASR clinical with narrow bands ranged between .17 to .72, for broadband internalizing from .18 to .72, for externalizing it was between .16 to .51, and for total problem .12 to .68. Similarly, item total correlation of items of ASR non-clinical with narrow bands ranged between .33 to .69, for broadband internalizing from .31 to .66, for externalizing it was between .10 to .30, and for total problem .19 to .62.

Moreover, item total correlation of all the items for ABCL clinical with narrow bands ranged between .29 to .73, for broadband internalizing from .12 to .69, for externalizing it was between .30 to .67, and for total problem .11 to .60. Similarly, item total correlation of items of ASR non-clinical with narrow bands ranged between .34 to .71, for broadband internalizing from .30 to .61, for externalizing it was between .31 to .67, and for total problem .20 to .64.

Lastly, for ADIV clinical sample, item total correlation with Cluster A ranged between .34 to .67, with Cluster B ranged it between .16 to .64, with Cluster C the item total correlation ranged between .28 to .67, and all item total correlation of all clusters with total clusters ranged between .18 to .63. Similarly, for non-clinical sample, item total correlation with Cluster A ranged between .34 to .59, with Cluster B ranged between .33 to .58, with Cluster C the item total correlation ranged between .28 to .65, and all item total correlation of all clusters with total clusters ranged between .25 to .61. Lastly, NOS-depressive with total clusters for ranged between .19 to .50 and .50 to .61 for clinical and non-clinical sample respectively. However, NOS- passive aggressive item total correlation with total clusters ranged between .29 to .57 for clinical and .38 to .61 for non-clinical sample.

These results illustrate that Urdu version of the scales of the study have good to acceptable internal consistency further confirmation of factor structure furnished evidence for construct validity of study measures. However, reliability estimates, evidence of convergent and contrasted group validity were further established for validation of the scales.

Table 20

Descriptive Characteristics of ASR, ABCL, and ADP IV for Clinical (N = 408) and Non-Clinical (N = 487) Sample

Variables	k	α		M(SD)		Range			Skewness		Kurtosis	
		Cl.	Non-Cl	Cl.	Non-Cl	Pot.	Act. Cl.	Act. Non-Cl	Cl.	Non-Cl	Cl.	Non-Cl
Adult Self Report (ASR) Syndrome Based Subscales												
Total Mean Adaptive	35	-	-	37.76 (9.61)	48.50 (7.07)	0-70	19-60	22-66	.01	1.10	-.87	.66
Anxious depressed	18	.85	.88	26.90 (7.34)	8.22 (6.81)	0-36	0-36	0-32	-1.51	.88	2.14	.51
Withdrawn	9	.72	.72	12.26 (4.05)	3.76 (3.23)	0-18	0-18	0-15	-1.06	.97	.78	.42
Somatic Comp.	12	.80	.83	24.00 (14.93)	4.05 (4.34)	0-24	0-24	0-22	-1.72	1.5	.03	2.17
Attention Problem	15	.85	.80	21.63 (7.07)	6.20 (5.08)	0-30	0-30	0-15	-1.29	.98	1.01	.51
Thought Problem	10	.57	.73	6.80 (4.05)	2.13 (2.73)	0-20	0-20	0-27	.43	1.96	-.46	4.24
Aggressive	15	.84	.81	19.36 (7.07)	5.72 (4.82)	0-30	0-30	0-25	-.58	1.17	-.11	1.22
Rule Breaking	14	.85	.78	10.60 (7.12)	2.89 (3.53)	0-28	0-30	0-19	.54	2.02	-.37	4.36
Intrusive	6	.69	.58	4.65 (3.29)	2.26 (3.53)	0-12	0-12	0-10	.60	.96	-.54	.75
Internalizing	39	.91	.92	54.10 (14.88)	16.02 (12.46)	0-78	0-78	0-64	-1.34	.94	1.74	.37
Externalizing	35	.91	.89	37.92 (15.85)	17.14 (16.72)	0-70	0-70	0-70	.08	1.31	-.73	.73
Total Problem	120	.96	.96	138.04 (41.63)	43.47 (31.74)	0-240	0-210	0-168	-.88	1.08	.71	.96
Adult Behavior Checklist (ABCL) Syndrome Based Subscales												
Anxious depressed	14	.84	.84	22.40 (5.94)	6.49 (5.45)	0-28	0-28	0-26	-1.55	.89	2.09	.14
Withdrawn	9	.72	.73	12.28 (3.83)	3.60 (3.23)	0-18	0-18	0-15	-1.12	.01	1.01	.40
Somatic Complaints	9	.78	.80	11.04 (3.94)	3.34 (3.61)	0-18	0-18	0-18	-.65	1.47	-.08	1.87
Thought Problem	9	.55	.78	6.44 (3.99)	1.71 (2.70)	0-18	0-18	0-16	.53	2.46	-.21	3.68
Attention Problem	17	.85	.83	24.88 (7.14)	6.06 (5.51)	0-34	0-34	0-31	-1.36	1.11	1.65	.97
Aggressive	16	.84	.81	21.09 (7.24)	5.90 (5.17)	0-32	0-32	0-27	-.52	1.28	-.16	1.51
Rule Breaking	13	.84	.76	9.85 (6.86)	2.74 (3.47)	0-26	0-26	0-17	.57	1.87	-.49	3.57
Intrusive	6	.69	.63	4.87 (3.19)	2.28 (2.34)	0-12	0-12	0-10	.45	.97	-.76	.21
Internalizing	32	.90	.92	45.79 (11.65)	13.43 (10.46)	0-64	0-63	0-51	-1.48	.83	2.01	-.04
Externalizing	35	.91	.89	35.84 (15.20)	10.93 (9.66)	0-70	0-70	0-46	.11	1.36	-.72	1.59
Total Problem	118	.95	.96	140.00 (38.81)	41.03 (31.50)	0-236	0-216	0-145	-.84	1.11	.76	.66
Assessment of DSM IV Personality Disorders (ADP IV) Questionnaire												
Paranoid	7	.81	.72	26.31 (11.66)	20.25 (7.86)	7-49	7-49	7-44	.27	.59	-.95	-.06
Schizoid	7	.64	.61	26.13 (8.96)	19.92 (7.16)	7-49	7-49	7-42	.06	.43	-.57	-.20
Schizotypal	9	.68	.75	31.60 (11.11)	22.42 (8.65)	9-63	9-60	9-52	.10	.47	-.65	.26
Cluster A	23	.86	.87	84.04 (27.04)	62.59 (20.63)	7-161	27-149	23-127	.08	.57	-.76	-.02

Continued...

Variables	<i>k</i>	<i>α</i>		<i>M(SD)</i>		Range			Skewness		Kurtosis	
		Cl.	Non-Cl	Cl.	Non-Cl	Pot.	Act. Cl.	Act. Non-Cl	Cl.	Non-Cl	Cl.	Non-Cl
Anti-social	8	.72	.69	23.81 (10.53)	14.44 (6.43)	8-56	8-54	8-45	.52	.97	-.48	1.30
Borderline	10	.70	.77	41.31 (11.81)	27.24 (10.23)	10-70	11-70	11-68	-.11	.60	-.45	.29
Histrionic	8	.68	.70	23.94 (8.86)	21.33 (7.75)	8-56	8-49	8-48	.54	.61	-.44	.03
Narcissism	9	.72	.65	26.51 (10.82)	26.42 (8.76)	9-63	9-57	9-55	.48	.52	-.48	-.03
Cluster B	36	.90	.89	115.57 (35.80)	91.44 (28.58)	9-252	39-208	35-192	.20	.57	-.58	.18
Avoidant	7	.65	.70	23.84 (9.26)	20.88 (8.00)	7-49	7-46	7-44	.17	.49	-.87	-.32
Dependent	8	.68	.76	28.12 (10.05)	22.75 (8.93)	8-56	8-54	8-55	.26	.62	-.40	-.03
Obsessive Comp.	8	.75	.63	27.46 (10.90)	27.07 (8.17)	8-56	8-52	8-53	.18	.23	-.85	-.22
Cluster C	23	.87	.86	79.42 (26.75)	70.70 (21.92)	23-161	23-145	24-131	.21	.39	-.69	-.34
NOS- Depressive	7	.69	.84	28.16 (9.01)	17.03 (8.45)	7-49	7-49	7-48	-.11	1.19	-.64	1.14
NOS-Passive Aggressive	7	.65	.69	26.05 (9.21)	18.22 (7.20)	7-49	7-48	7-42	-.40	.80	-.58	.49
Total Clusters	82	.94	.95	279.03 (80.35)	224.73 (65.79)	82-574	97-480	84-439	.18	.47	-.41	-.10

Note. Cl. = Clinical; NOS = Not Otherwise Specified.

The reliability of ASR syndrome-based scales (narrow band scales) for clinical ranged from .57 to .85 and .58 to .88 for non-clinical sample indicating low to good reliability. The reliability of broad band scales (internalizing and externalizing) for both samples lies in between .89 to .92. The reliability of total problem scale for both samples was .96.

For ABCL syndrome based narrow band scales the reliability for clinical ranged from .55 to .85 and .63 to .84 for non-clinical sample. The reliability of broad band scales (internalizing and externalizing) ranged from .89 to .92 for both samples. Lastly, the reliability of total problem score for ABCL was .95 and .96 for clinical and non-clinical sample respectively.

For ADP IV, the reliability of Cluster A, for clinical sample varied from .64 to .81 and .61 to .75 for non-clinical sample. For Cluster B, clinical sample, reliability estimates ranged from .68 to .72 and .65 to .75 for non-clinical sample. The reliability of Cluster C, for clinical sample ranged from .65 to .75 and .63 to .76 for non-clinical sample. The reliability of total clusters for both samples was .94 and .95 respectively indicates that ADP IV had acceptable reliability estimates.

The value of skewness for all scales and sub-scales of both ASR and ABCL was within acceptable range whereas the values of kurtosis seem to be slightly high for few subscales. However, skewness was well within the acceptable range for ADP IV across both samples whereas the values of kurtosis were slightly high for some subscales of ADPIV.

A priori sample estimation was carried out using Gpower (Version 3.1.9.6) with medium effect size, error probability ($\alpha = .05$), and sample power (.95), the adequate sample size was 138. Therefore, both clinical ($N = 408$) and non-clinical samples ($N = 487$) of the present study were enough to test convergent validity between ASR and ABCL through Pearson Product Moment Correlation. Table 21 indicated that correlation between narrow band scales of ASR and ABCL for clinical sample ranged from moderate to high ($r = .66, p < .01$ to $r = .88, p < .01$) providing evidence for convergent validity. For non-clinical sample the values ranged from moderate to acceptable ($r = .57, p < .01$ to $r = .77, p < .01$). For broad band scales and ranged from low to excellent ($r = .29, p < .01$ to $r =$

.78, $p < .01$) for both samples. For overall problem scale the values of correlation were between acceptable to good ($r = .77, p < .01$ to $r = .90, p < .01$). To conclude, it can be inferred that significant positive correlation between both narrow and broad band scales furnished evidence for convergent validity between the two measures.

Table 21

Convergent Evidence for Relationship between ASR and ABCL Syndrome Based Scales across Clinical (N = 408) and Non-Clinical (N = 487) Sample

Scales		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
ASR	1 AD	-	.79**	.60**	.83**	.45**	.65**	.40**	.31**	.93**	.33**	.84**	.84**	.72**	.49**	.47**	.74**	.53**	.28**	.20**	.83**	.42**	.74**
	2 WD	.73**	-	.56**	.76**	.42**	.65**	.45**	.36**	.87**	.36**	.82**	.68**	.80**	.41**	.42**	.70**	.56**	.36**	.26**	.75**	.48**	.73**
	3 SC	.58**	.48**	-	.58**	.37**	.51**	.24**	.18**	.82**	.20**	.66**	.57**	.47**	.76**	.43**	.54**	.39**	.15**	.08	.70**	.27**	.57**
	4 AP	.74**	.70**	.58**	-	.49**	.74**	.51**	.39**	.83**	.43**	.89**	.72**	.69**	.46**	.48**	.85**	.62**	.38**	.28**	.75**	.53**	.80**
	5 TP	.50**	.43**	.51**	.52**	-	.49**	.33**	.23**	.47**	.33**	.60**	.38**	.38**	.25**	.66**	.44**	.38**	.21**	.16**	.40**	.31**	.50**
	6 AB	.72**	.66**	.58**	.71**	.60**	-	.66**	.62**	.69**	.60**	.88**	.52**	.59**	.37**	.51**	.67**	.86**	.57**	.54**	.59**	.78**	.82**
	7 RB	.60**	.57**	.47**	.65**	.59**	.68**	-	.66**	.41**	.72**	.72**	.28**	.44**	.11*	.31**	.49**	.64**	.88**	.58**	.32**	.82**	.68**
	8 IN	.42**	.39**	.34**	.48**	.47**	.64**	.61**	-	.32**	.62**	.60**	.22**	.37**	0.07	.27**	.37**	.63**	.65**	.83**	.26**	.77**	.59**
	9 Int.	.94**	.83**	.79**	.79**	.56**	.77**	.64**	.45**	-	.34**	.88**	.81**	.75**	.64**	.50**	.76**	.56**	.29**	.20**	.87**	.44**	.77**
	10 Ext	.31**	.31**	.25**	.35**	.29**	.43**	.41**	.41**	.34**	-	.59**	.23**	.35**	.11*	.30**	.38**	.55**	.66**	.53**	.27**	.67**	.56**
	11 Total	.87**	.79**	.72**	.87**	.70**	.88**	.80**	.63**	.93**	.42**	-	.70**	.74**	.48**	.57**	.81**	.76**	.58**	.48**	.76**	.73**	.90**
ABCL	12 AD	.77**	.60**	.50**	.61**	.39**	.60**	.48**	.32**	.75**	.23**	.71**	-	.74**	.50**	.42**	.76**	.48**	.22**	.16**	.92**	.36**	.75**
	13 WD	.55**	.64**	.39**	.53**	.37**	.53**	.52**	.30**	.64**	.25**	.61**	.66**	-	.41**	.44**	.76**	.63**	.43**	.32**	.85**	.56**	.82**
	14 SC	.47**	.40**	.62**	.48**	.38**	.47**	.40**	.30**	.58**	.21**	.57**	.59**	.42**	-	.36**	.46**	.31**	0.06	0.04	.73**	.18**	.45**
	15 TP	.35**	.27**	.33**	.31**	.57**	.38**	.44**	.30**	.38**	.12**	.46**	.45**	.44**	.44**	-	.49**	.47**	.27**	.23**	.48**	.39**	.62**
	16 AP	.59**	.50**	.45**	.68**	.43**	.56**	.55**	.35**	.61**	.20**	.67**	.74**	.64**	.59**	.58**	-	.68**	.46**	.31**	.79**	.59**	.88**
	17 AB	.59**	.50**	.46**	.54**	.43**	.72**	.53**	.46**	.61**	.27**	.68**	.72**	.61**	.59**	.55**	.73**	-	.64**	.64**	.55**	.90**	.86**
	18 RB	.46**	.44**	.38**	.52**	.52**	.57**	.71**	.48**	.50**	.25**	.63**	.57**	.59**	.48**	.63**	.67**	.66**	-	.64**	.27**	.89**	.68**
	19 IN	.33**	.32**	.27**	.35**	.33**	.48**	.48**	.61**	.36**	.23**	.48**	.45**	.42**	.40**	.44**	.52**	.66**	.60**	-	.20**	.81**	.57**
	20 Int.	.74**	.65**	.59**	.64**	.44**	.64**	.55**	.36**	.78**	.27**	.76**	.93**	.80**	.78**	.52**	.79**	.77**	.64**	.50**	-	.43**	.82**
	21 Ext	.56**	.50**	.44**	.56**	.50**	.71**	.65**	.57**	.59**	.29**	.70**	.69**	.64**	.58**	.63**	.76**	.93**	.86**	.81**	.76**	-	.83**
	22 Total	.67**	.59**	.54**	.65**	.53**	.69**	.63**	.47**	.71**	.28**	.77**	.85**	.75**	.71**	.69**	.88**	.89**	.80**	.67**	.92**	.92**	-

Note. Bold = Clinical; ASR = Adult Self Report; ABCL = Adult Behavior Checklist; AD = Anxious Depressed; WD = Withdrawn; SC = Somatic Complaints; AP = Attention Problem; TP = Thought Problem; AB = Aggressive Behavior; RB = Rule Breaking; IN = Intrusive; Int = Internalizing; Ext = Externalizing; Total = Total Problem.

* $p < .05$. ** $p < .001$.

Table 22

Convergent Evidence of Relationship between ASR Adaptive Functioning Subscales with ASR Syndrome Based Scales, and ADP IV across Clinical (N = 408) and Non-Clinical (N = 487) Sample

		Adaptive Functioning Clinical						Adaptive Functioning Non-Clinical					
		Friends (n = 408)	Spouse (n = 280)	Family (n = 408)	Education (n = 15)	Job (n = 104)	Mean (n = 408)	Friends (n = 487)	Spouse (n = 229)	Family (n = 487)	Education (n = 159)	Job (n = 303)	Mean (n = 487)
ASR	AD	-.36**	-.28**	-.19**	-.366	-.36**	-.35**	-.30**	-.35**	-.36**	-.03	-.29**	-.35**
	WD	-.29**	-.29**	-.19**	-.70**	-.230**	-.345**	-.26**	-.32**	-.29**	-.05	-.26**	-.29**
	SC	-.26**	-.24**	-.17**	-.24	-.34**	-.230**	-.21**	-.27**	-.26**	-.04	-.21**	-.25**
	AP	-.36**	-.29**	-.25**	-.47	-.47**	-.41**	-.25**	-.28**	-.33**	-.13	-.30**	-.31**
	TP	-.12*	-.25**	-.24**	.03	-.21*	-.25**	-.12**	-.21**	-.20**	-.01	-.08	-.17**
	AB	-.15**	-.31**	-.28**	-.54*	-.37**	-.35**	-.14**	-.26**	-.21**	.00	-.20**	-.21**
	RB	-.03	-.03	-.25**	-.13	-.36**	-.19**	-.12**	-.21**	-.19**	.00	-.25**	-.17**
	IN	-.01	.08	-.14**	-.04	-.07	-.08	.00	-.13*	-.06	.17*	-.20**	-.06
	Int.	-.35**	-.31**	-.21**	-.45	-.37**	-.37**	-.30**	-.37**	-.36**	-.05	-.30**	-.35**
	Ext	-.04	-.01	-.28**	-.38	-.25**	-.18**	-.01	-.13	-.12**	.04	-.20**	-.13**
Total	-.28**	-.28**	-.29**	-.42	-.41**	-.38**	-.24**	-.35**	-.32**	-.03	-.29**	-.30**	
ABCL	AD	-.39**	-.27**	-	-	-	-	-.29**	-.26**	-	-	-	-
	WD	-.32**	-.25**	-	-	-	-	-.26**	-.29**	-	-	-	-
	SC	-.30**	-.23*	-	-	-	-	-.20**	-.19**	-	-	-	-
	TP	-.26**	-.34**	-	-	-	-	-.12**	-.29**	-	-	-	-
	AP	-.38**	-.37**	-	-	-	-	-.26**	-.32**	-	-	-	-
	AB	-.14**	-.31**	-	-	-	-	-.18**	-.26**	-	-	-	-
	RB	.01	-.03	-	-	-	-	-.17**	-.23**	-	-	-	-
	IN	.06	.07	-	-	-	-	-.09	-.15**	-	-	-	-
	Int.	-.41**	-.30**	-	-	-	-	-.30**	-.28**	-	-	-	-
	Ext	-.05	-.15*	-	-	-	-	-.18**	-.26**	-	-	-	-
Total	-.29**	-.32**	-	-	-	-	-.25**	-.33**	-	-	-	-	
ADPIV	Par	-.09	-.28**	-.28**	-.12	-.35**	-.31**	-.22**	-.38**	-.19**	.02	-.28**	-.27**
	Sz	-.17**	.03	-.26**	-.45	-.25**	-.22**	-.27**	-.33**	-.16**	-.09	-.17**	-.26**
	St	-.17**	-.07	-.30**	-.30	-.25*	-.26**	-.28**	-.37**	-.22**	-.10	-.26**	-.31**
	AS	-.03	-.08	-.28**	-.29	-.37**	-.23**	-.15**	-.28**	-.12**	-.09	-.16**	-.19**
	Bor	-.12*	-.20**	-.27**	-.15	-.37**	-.28**	-.18**	-.36**	-.20**	.06	-.30**	-.26**
	His	-.01	.23**	-.07	.35	-.01	.02	-.12**	-.25**	-.19**	.02	-.21**	-.19**
	Nar	.04	.17**	-.15**	.21	-.03	-.01	-.15**	-.22**	-.15**	.00	-.20**	-.18**
	Avoi	-.05	.17**	-.11*	-.24	.04	-.05	-.25**	-.28**	-.18**	.03	-.22**	-.23**
	Dep	-.12*	.15*	-.14**	.29	-.06	-.08	-.23**	-.30**	-.19**	-.04	-.32**	-.28**
	OC	-.01	.20**	-.07	.21	.16	.04	-.18**	-.28**	-.14**	-.10	-.21**	-.20**
	Nos.De	-.24**	-.11	-.21**	-.32	-.32**	-.21**	-.25**	-.32**	-.28**	-.11	-.30**	-.36**
	Nos.P	-.10*	-.06	-.27**	-.20	-.24*	-.21**	-.23**	-.38**	-.25**	-.08	-.31**	-.33**
	CA	-.16**	-.15*	-.33**	-.34	-.33**	-.31**	-.30**	-.41**	-.22**	-.07	-.27**	-.32**
	CB	-.04	.02	-.23**	.02	-.24*	-.16**	-.17**	-.33**	-.20**	.01	-.26**	-.24**
	CC	-.07	.20**	-.12*	.05	.05	-.03	-.25**	-.33**	-.19**	-.05	-.29**	-.28**
CT	-.09	.02	-.25**	-.08	-.20*	-.19**	-.25**	-.38**	-.22**	-.03	-.30**	-.30**	

Note. ASR = Adult Self Report; ABCL = Adult Behavior Checklist; ADPIV = Assessment of DSM IV Personality Disorders; AD = Anxious Depressed; WD = Withdrawn; SC = Somatic Complaints; AP = Attention Problem; TP = Thought Problem; AB = Aggressive Behavior; RB = Rule Breaking; IN = Intrusive; Int = Internalizing; Ext = Externalizing; Total = Total Problem; Par = Paranoid; Sz = Schizoid; St = Shizotypal; AS = Antisocial; Bor = Borderline; His = Histrionic; Nar = Narcissistic; Avoi = Avoidant; Dep = Dependant; OC = Obsessive Compulsive; Nos.De = Not otherwise specified Depressive; Nos.P = Not otherwise specified Pssive Aggressive; CA = Cluster A; CB = Cluster B; CC = Cluster C; CT = Cluster Total.

* $p < .05$. ** $p < .001$.

In order to establish convergent validity across adaptive functioning scales, narrow and broad band scales of ASR and ABCL as well as ADP-IV scales Pearson Product Moment Correlation was computed. Table 22 indicated that across in case of both samples for narrow band scales of ASR and ABCL, a significant negative relationship was apparent with adaptive functioning scales except for intrusive problems where non-significant relationship was evident. For ADP IV as well, significant negative relationship was evident between total clusters and mean adaptive functioning for both samples.

A priori sample estimation was carried out using Gpower (Version 3.1.9.6) with medium effect size, error probability ($\alpha = .05$), and sample power (.95), the adequate sample size was 88. Therefore, both clinical ($N = 408$) and non-clinical samples ($N = 487$) of the present study were enough to test contrasted group validity for t-test.

Table 23

t test across Adaptive Functioning Scales of ASR for Clinical (N = 408) and Non-Clinical (N = 487) Sample

Scale	Clinical		Non-Clinical		$t_{(n)}$	p	95 % CI		Cohen's d
	$M(SD)$	n	$M(SD)$	n			LL	UL	
Friends	28.26 (11.97)	408	47.02 (9.70)	487	25.08	.00	16.74	19.59	1.72
Spouse	42.55 (15.26)	280	47.04(10.78)	229	3.75	.00	2.14	6.84	.33
Job	35.53(12.92)	104	46.92 (9.47)	303	9.59	.00	9.06	13.73	1.01
Edu	36.40 (12.47)	15	44.47(10.51)	159	2.80	.00	2.37	13.76	.70
Family	44.86 (13.65)	408	52.92 (8.10)	487	10.94	.00	6.62	9.51	.72
Adap.	37.76 (9.6)	408	48.50 (7.07)	487	19.23	.00	9.65	11.84	1.27

Note. Adap. = Adaptive

Table 23 indicated a significant mean difference across Adaptive functioning subscales where non-clinical sample is scoring higher as compared to clinical sample providing evidence for contrasted group validity.

In order to establish contrasted group evidence for validity t test was computed for ASR, ABCL, and ADP IV across both samples. Table 24 indicates that a significant mean difference was apparent across narrow and broad band scales of ASR where clinical sample is scoring higher as compared to non-clinical sample. Similarly, significant mean difference was also apparent across narrow and broad band scales of ABCL where clinical sample scored higher as compared to non-clinical sample. Lastly, significant mean difference was apparent across all ADP IV subscales where clinical adults scored high than

non-clinical adults except for narcissistic and obsessive-compulsive personality disorder where non-significant mean differences were apparent.

Table 24

t test on ASR, ABCL, and ADP IV across Clinical (*N* = 408) and Non-Clinical (*N* = 487) Sample

Scale	Clinical	Non-Clinical	<i>t</i> ₍₈₉₃₎	<i>p</i>	95 % <i>CI</i>		Cohen's <i>d</i>
	(<i>N</i> = 408)	(<i>N</i> = 487)			<i>LL</i>	<i>UL</i>	
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)					
Adult Self Report (ASR)							
Anxious Depressed	26.91 (7.35)	8.23 (6.81)	39.42	.00	-19.61	-17.75	2.63
Withdrawn	12.26 (4.06)	3.76 (3.24)	34.89	.00	-8.99	-8.03	2.31
Somatic Complaints	14.93 (5.52)	4.05 (4.34)	33.01	.00	-11.53	-10.24	2.19
Thought Problem	6.80 (4.05)	2.14 (2.73)	20.48	.00	-5.11	-4.22	1.35
Attention Problem	21.64 (7.08)	6.20 (5.08)	37.86	.00	-16.23	-14.63	2.51
Aggressive Behavior	19.36 (7.07)	5.72 (4.82)	34.14	.00	-14.42	-12.85	2.25
Rule Breaking	10.61 (7.13)	2.89 (3.53)	21.00	.00	-8.43	-6.99	1.37
Intrusive	4.66 (3.30)	2.25 (2.13)	13.12	.00	-2.76	-2.04	0.87
Internalizing	54.10 (14.89)	16.02 (12.46)	41.65	.00	-39.87	-36.28	2.77
Externalizing	37.92 (15.86)	17.15 (16.72)	18.95	.00	-22.92	-18.60	1.27
Total Problem	138.04 (41.38)	43.47 (31.75)	38.67	.00	-99.38	-89.78	2.56
Adult Behavior Checklist (ABCL)							
Anxious Depressed	22.40 (5.94)	6.49 (5.45)	41.75	.00	-16.66	-15.16	2.79
Withdrawn	12.29 (3.84)	3.60 (3.23)	36.77	.00	-9.15	-8.22	2.49
Somatic Complaints	11.05 (3.94)	3.34 (3.61)	30.48	.00	-8.20	-7.21	2.04
Thought Problem	6.45 (4.00)	1.71 (2.70)	21.01	.00	-5.17	-4.29	1.39
Attention Problem	24.89 (7.15)	6.06 (5.51)	44.45	.00	-19.66	-17.99	2.95
Aggressive Behavior	21.09 (7.25)	5.90 (5.18)	36.48	.00	-16.01	-14.38	2.41
Rule Breaking	9.85 (6.87)	2.75 (2.30)	19.99	.00	-7.80	-6.41	1.38
Intrusive	2.28 (2.30)	4.90 (3.19)	14.16	.00	-2.97	-2.25	.94
Internalizing	45.79 (11.66)	13.44 (10.46)	43.72	.00	-33.80	-30.90	2.92
Externalizing	35.84 (15.21)	10.93 (9.66)	29.69	.00	-26.56	-23.26	1.96
Total Problem	140.01 (38.82)	41.03 (31.50)	42.11	.00	-103.59	-94.36	2.80
Assessment of DSM IV Personality Disorders (ADP IV) Questionnaire							
Paranoid	26.31 (11.66)	20.25 (7.86)	9.24	.00	-7.35	-4.78	.61
Schizoid	26.13 (8.96)	19.92 (7.16)	11.52	.00	-7.27	-5.15	.76
Schizotypal	31.60 (11.11)	22.42 (8.65)	13.89	.00	-10.47	-7.88	.92
Antisocial	23.81 (10.53)	16.44 (6.43)	12.84	.00	-8.49	-6.24	.84
Borderline	41.31 (11.80)	27.32 (10.22)	19.11	.00	-15.52	-12.63	1.27
Histrionic	23.94 (8.86)	21.33 (7.74)	4.70	.00	-3.70	-1.52	.31
Narcissistic	26.51 (10.81)	26.42 (8.76)	.12	.91	-1.38	1.23	
Avoidant	23.84 (9.26)	20.88 (7.99)	5.13	.00	-4.09	-1.83	.34
Dependent	28.12 (10.05)	22.74 (8.92)	8.46	.00	-6.62	-4.13	.57
Obsessive Compulsive	27.45 (10.90)	27.06 (8.17)	.61	.54	-1.67	.90	1.27
Nos-Depressive	28.16 (9.00)	17.03 (8.45)	19.04	.00	-12.28	-9.98	1.27
Nos-Passive Agg	26.05 (9.21)	18.22 (7.19)	14.27	.00	-8.91	-6.76	.94
Cluster A	84.04 (27.04)	62.59 (20.62)	13.45	.00	-24.58	-18.32	.89
Cluster B	115.57 (35.80)	91.44 (28.58)	11.21	.00	-28.35	-19.90	.74
Cluster C	79.41 (26.75)	70.70 (65.79)	5.36	.00	-11.91	-5.53	.17
Total Clusters	279.03 (80.34)	224.73 (65.79)	11.11	.00	-63.89	-44.71	.74

Summary of Findings

This chapter summarizes the results of CFA indicating acceptable to good model fit for all the Urdu versions of the scales. It further assessed item-total correlations to establish internal consistencies of all items with total score at narrow and broad band for ASR and ABCL. For ADPIV, it assessed the homogeneity at Cluster level. Reliability estimates highlighted acceptable Cronbach alpha for all scales. Hence, evidence for convergent validity were established across scales for both samples. Lastly, contrasted group validity through *t* test was computed.

Overall, this chapter provides enough evidence to use the scale on Pakistani sample for further analysis.

Prevalence of Problem Behaviors and Personality Disorders

The previous part of results highlighted psychometric properties and factor structures of all scales. Based upon that the next phase of the study aimed at establishing prevalence across narrow and broad band scales of ASR and ABCL. In addition to this, it aims at establishing the prevalence of PDs for both samples.

A priori sample estimation was carried out using Gpower (Version 3.1.9.6) with medium effect size, error probability ($\alpha = .05$), and sample power (.95), the adequate sample size was 172 ($df = 2$), and 145 ($df = 1$). Therefore, both clinical ($N = 408$) and non-clinical samples ($N = 487$) of the present study were enough to examine the prevalence using Chi-squares.

Prevalence of ASR, ABCL, and ADP IV

In order to meet third and fourth objectives of the study prevalence of problem behavior and PDs was carried out. Using ASEBA manual (Achenbach & Rescorla, 2001), raw scores were obtained on three broad band scales (internalizing, externalizing, and total problems) and eight narrow band scales (anxious depressed, withdrawn, somatic complaints, thought problems, attention problems, rule breaking, aggressive behaviors, and intrusive problems) by summing up the obtained rating (0, 1, 2) for respective items of each subscale. Later, mean of problem subscale was computed. It was communicated to the author and was found that group 2 norms need to be followed for further conversion of raw scores into standard scores (Achenbach, Personal Communication, August 2017; see Appendix E). For each age group, a borderline cut off point was established as minimum cut-off point that includes raw score corresponding with the t score between 65 and 69 (93rd to 97th percentile) and between 60 and 63 (84th to 90th percentile). The clinical cut-off was t score greater than or equal to 70 (98th percentile). Below the t score of 65, the scores were considered normal. Thus, three categories emerged for classification of problem behavior based upon conversion of raw scores into t scores that included normal, borderline, and clinical.

Similarly, the present research uses categories presence (diagnosed) and absence (undiagnosed) based on DSM IV ADP IV categorical scoring. Diagnostic algorithm of trait scores greater than five paired with distress score greater than one ($T > 5$ & $D > 1$) was

used for establishing prevalence of PDs across both clusters and individual PD. This algorithm is based upon DSM IV categorical diagnosis of PDs (Schotte et al., 1998).

In order to establish prevalence and compare both samples across ASR, ABCL, and ADP IV, chi-square was computed. Further prevalence of problem behaviors and personality disorders is represented graphically as well.

Table 25

Chi-square for ASR and ABCL across Clinical (N = 408) and Non-Clinical (N = 487) Sample

Syndrome	Diagnosis	ASR			ABCL		
		Clinical (N = 408)	Non-Clinical (N = 487)	χ^2 , df(2)	Clinical (N = 408)	Non-Clinical (N = 487)	χ^2 , df(2)
1 Anxious Depressed	Normal	41 (10)	420 (86.2)	586.83**	32 (7.8)	412 (84.6)	571.74**
	Borderline	15 (3.7)	35 (7.2)		25 (6.1)	35 (7.2)	
	Clinical	352 (86.3)	32 (6.6)		351 (86)	40 (8.2)	
2 Withdrawn	Normal	55 (13.5)	416 (85.4)	527.67**	53 (13)	416 (85.4)	529.03**
	Borderline	22 (5.4)	40 (8.2)		33 (8.1)	44 (9)	
	Clinical	331 (81.1)	31 (6.4)		322 (78.9)	27 (5.5)	
3 Somatic Complaints	Normal	46 (11.3)	405 (83.2)	487.29**	44 (10.8)	382 (78.4)	439.96**
	Borderline	56 (13.7)	41 (8.4)		49 (12)	46 (9.4)	
	Clinical	306 (75)	41 (8.4)		315 (77.2)	59 (12.1)	
4 Thought Problem	Normal	160 (39.2)	424 (87.1)	228.38**	77 (18.9)	386 (79.3)	340.69**
	Borderline	69 (16.9)	28 (5.7)		92 (22.5)	54 (11.1)	
	Clinical	179 (43.9)	35 (7.2)		239 (58.6)	47 (9.7)	
5 Attention Problem	Normal	57 (14)	426 (87.5)	529.62**	43 (10.5)	439 (90.1)	632.33**
	Borderline	22 (24.2)	31 (6.4)		24 (5.9)	36 (7.4)	
	Clinical	329 (80.6)	30 (6.2)		341 (83.6)	12 (2.5)	
6 Aggressive Behavioral Problem	Normal	53 (13)	425 (87.3)	518.71**	59 (14.5)	439 (90.1)	533.61**
	Borderline	46 (11.3)	32 (6.6)		76 (18.6)	32 (6.6)	
	Clinical	309 (75.7)	30 (6.2)		273 (66.9)	16 (3.3)	
7 Rule Breaking	Normal	142 (34.8)	433 (88.9)	287.37**	157 (38.5)	436 (89.5)	261.20**
	Borderline	56 (13.7)	21 (4.3)		103 (25.2)	29 (6)	
	Clinical	210 (51.5)	33 (6.8)		148 (36.3)	22 (4.5)	
8 Intrusive Behavioral Problem	Normal	282 (69.1)	456 (93.6)	93.61**	244 (59.8)	435 (89.3)	111.12**
	Borderline	47 (11.5)	16 (3.3)		78 (19.1)	36 (7.4)	
	Clinical	79 (19.4)	15 (3.1)		86 (21.1)	16 (3.3)	
9 Internalizing Problem	Normal	17 (4.2)	357 (73.3)	494.37**	9 (2.2)	314 (64.5)	464.26**
	Borderline	12 (22.8)	38 (7.8)		13 (3.2)	60 (12.3)	
	Clinical	379 (92.9)	92 (18.9)		386 (94.6)	113 (23.2)	
10 Externalizing Problem	Normal	58 (14.2)	329 (67.6)	268.99**	30 (7.4)	381 (78.2)	482.66**
	Borderline	32 (7.8)	33 (6.8)		49 (12)	46 (9.4)	
	Clinical	318 (77.9)	125 (25.7)		329 (80.6)	60 (12.3)	
11 Total Problem	Normal	32 (7.8)	377 (77.4)	491.23**	16 (3.9)	371 (76.2)	525.51**
	Borderline	10 (2.5)	34 (7)		12 (2.9)	34 (7)	
	Clinical	366 (89.7)	76 (15.6)		380 (93.1)	82 (16.8)	

* $p < .05$. ** $p < .001$.

Table 25 indicates that significant differences exist for both narrow and broad band scales of ASR and ABCL across both samples. It is apparent from both graph (Figure 3)

and the above table that percentage of individuals in normal category is significantly higher in non-clinical adults for both scales. In contrast, for borderline and clinical range percentage of individuals is significantly higher for clinical in comparison to non-clinical sample.

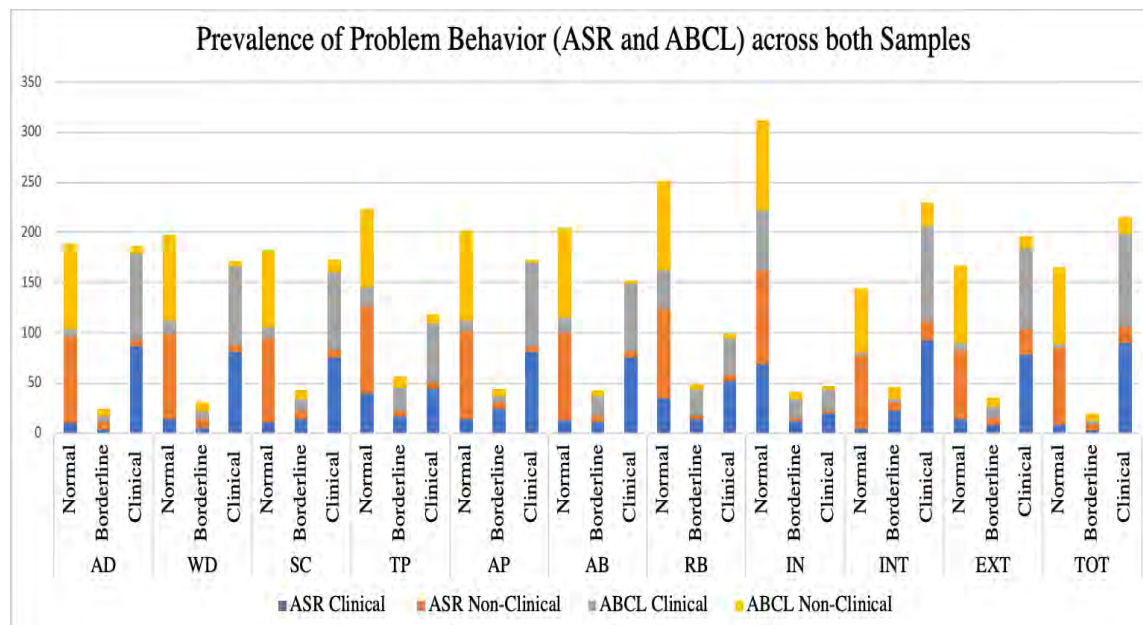


Figure 3. Prevalence of Problem Behaviors

Figure 3 represents prevalence of broad as well as narrow band scales of ASR and ABCL for both samples. Bars in the graph indicates pattern of narrow and broad scales on diagnostic categories (horizontal) across both samples; ASR clinical, ASR non-clinical, ABCL clinical, and ABCL non-clinical. As apparent from graph, percentage if individuals in clinical category is higher (as compared to normal and borderline) in clinical adults, across both narrow and broad band scales.

Table 26 establishes prevalence of PDs across both samples. Table further illustrates frequencies of diagnosed and undiagnosed PDs on ADP IV. This highlights that on ADP IV the number of adults diagnosed with PDs in clinical sample is higher in comparison to non-clinical sample.

These salient findings are further elaborated by the graph in Figure 4. In total 24 pair of bars represent diagnosed and undiagnosed PDs in both samples; undiagnosed clinical, undiagnosed non-clinical, diagnosed clinical, and diagnosed non-clinical. Bars

clearly indicate that number of individuals diagnosed with PDs is much higher for clinical sample in comparison to non-clinical sample.

Table 26

Chi-square for ADP IV across Clinical (N = 408) and Non-Clinical (N = 487) Sample

	Personality Disorders	Diagnosis	Clinical	Non-Clinical	χ^2 , <i>df</i> (1)
			<i>f</i> (%)	<i>f</i> (%)	
1	Paranoid	Undiagnosed	285 (69.6)	468 (96.1)	114.56**
		Diagnosed	123 (30.1)	19 (3.9)	
2	Schizoid	Undiagnosed	290 (71.1)	480 (98.6)	139.57**
		Diagnosed	118 (28.9)	7 (1.4)	
3	Schizotypal	Undiagnosed	321 (78.7)	480 (98.6)	93.40**
		Diagnosed	87 (21.3)	7 (1.4)	
4	Antisocial	Undiagnosed	348 (85.3)	484 (99.4)	67.35**
		Diagnosed	60 (14.7)	3 (0.6)	
5	Borderline	Undiagnosed	224 (54.9)	469 (96.3)	217.76**
		Diagnosed	184 (45.1)	18 (3.7)	
6	Histrionic	Undiagnosed	373 (91.4)	484 (99.4)	34.62**
		Diagnosed	35 (8.6)	3 (0.6)	
7	Narcissism	Undiagnosed	353 (86.5)	476 (97.7)	40.93**
		Diagnosed	55 (13.48)	11 (2.3)	
8	Avoidant	Undiagnosed	329 (80.6)	467 (95.9)	52.52**
		Diagnosed	79 (19.4)	20 (4.1)	
9	Dependent	Undiagnosed	339 (83.1)	474 (97.3)	54.11**
		Diagnosed	69 (16.9)	13 (2.7)	
10	Obsessive Compulsive	Undiagnosed	297 (72.8)	443 (91)	51.19**
		Diagnosed	111 (27.2)	44 (9)	
11	NOS. dependent	Undiagnosed	331 (81.1)	477 (97.9)	71.56**
		Diagnosed	77 (18.9)	10 (2.1)	
12	NOS. Passive Aggressive	Undiagnosed	300 (73.5)	470 (96.5)	97.57**
		Diagnosed	108 (26.5)	17 (3.5)	

* $p < .05$. ** $p < .001$.

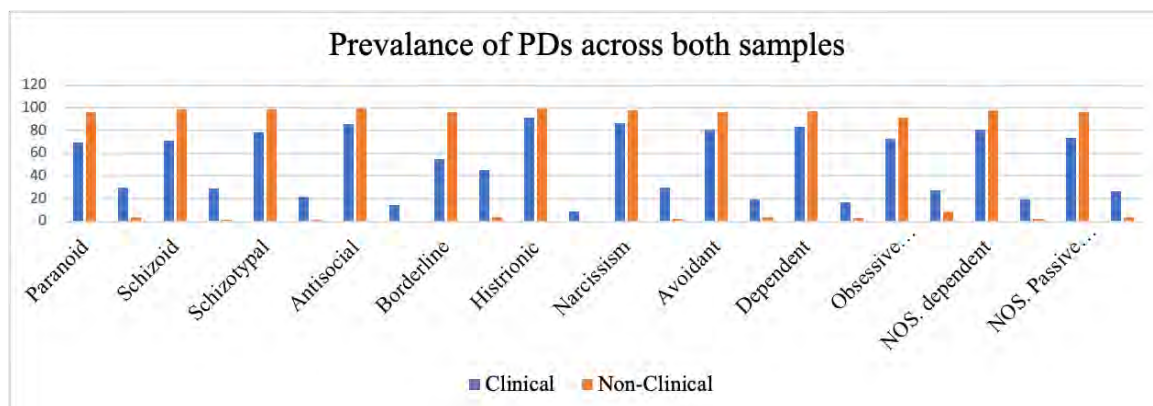


Figure 4. Prevalence of Personality Disorder

In order to develop an understanding of co-morbidity among PDs, frequency, and percentage was computed.

Table 27

Co-morbidities among Clusters of Personality Disorders for Clinical (N = 408) and Non-Clinical (N = 487) Sample

	Clusters	Diagnosis	Clinical (N = 408)	Non-Clinical (N = 487)
			<i>f</i> (%)	<i>f</i> (%)
1.	Cluster A	Undiagnosed	217 (53.18)	384 (78.85)
		Diagnosed on 1 PD	92 (22.54)	78(16.01)
		Diagnosed on 2 PD	61 (14.95)	17(3.49)
		Diagnosed on 3 PD	38 (9.31)	8(1.64)
2.	Cluster B	Undiagnosed	204(50)	460(94.45)
		Diagnosed on 1 PD	132(32.35)	20 (4.11)
		Diagnosed on 2 PD	32(7.84)	6 (1.23)
		Diagnosed on 3 PD	22(5.39)	1(.20)
		Diagnosed on 4 PD	18(4.41)	0(0)
3.	Cluster C	Undiagnosed	256(62.74)	431(88.50)
		Diagnosed on 1 PD	76(18.62)	41(8.41)
		Diagnosed on 2	45(11.02)	9(1.84)
		Diagnosed on 3	31(7.60)	6(1.23)
4.	Total Clusters	Undiagnosed	130(31.86)	417 (85.62)
		Diagnosed on 1 PD	67(16.42)	42 (8.62)
		Diagnosed on 2 PD	69(16.91)	9 (1.84)
		Diagnosed on 3 PD	49(12)	3(61.60)
		Diagnosed on 4 PD	30(7.35)	8 (1.64)
		Diagnosed on 5 PD	17(4.16)	5 (1.02)
		Diagnosed on 6 PD	11(2.69)	2(.41)
		Diagnosed on 7 PD	7(1.71)	1(.20)
		Diagnosed on 8 PD	9(2.20)	0(0)
		Diagnosed on 9 PD	13(3.19)	0(0)
		Diagnosed on 10 PD	6(1.47)	0(0)

Table 27 indicates that comorbidity between PDs for both samples. Clinical sample had more comorbidity in comparison to non-clinical sample. 16.42 % of clinical sample had only one PD which is double in comparison to non-clinical sample (8.62 %). Similarly, 16.91 % had two PDs in clinical sample in comparison to 1.84 % in non-clinical sample. It is important to take into account that this established comorbidity can be both from the same cluster as well as from different clusters.

Chi-square was also computed to compare ASR syndrome-based scales across gender for both samples.

Table 28

Chi-square for ASR and ABCL Syndrome based Scales across Gender for Clinical (N = 408) and Non-Clinical (N = 487) Sample

		ASR						ABCL					
Syndrome	Diagnosis	Clinical (N = 408)		χ^2, df (2)	Non-Clinical (N = 487)		χ^2, df (2)	Clinical (N = 408)		χ^2, df (2)	Non-Clinical (N = 487)		χ^2, df (2)
		Male (n = 235)	Female (n = 173)		Male (n = 274)	Female (n = 213)		Male (n = 235)	Female (n = 173)		Male (n = 274)	Female (n = 213)	
		f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)				
1	Anxious	31(13.1)	10 (5.78)	6.08*	235 (85.77)	185 (86.85)	.76	26 (11.06)	6 (3.46)	9.42 *	225 (82.11)	187 (87.79)	2.97
	Depressed	8 (3.40)	7 (4.04)		22 (8.02)	13 (6.10)		11 (4.68)	14 (8.09)		23 (8.39)	12 (5.63)	
	Clinical	196 (83.40)	156 (90.17)		17 (6.20)	15 (7.04)		198 (84.25)	153 (88.44)		26 (9.48)	14 (6.57)	
2	Withdrawn	63 (26.81)	19 (10.98)	.99	233 (85.03)	183 (85.92)	.08	40 (17.02)	13 (7.51)	8.07 *	237 (86.49)	179 (84.03)	1.49
	Borderline	11 (4.68)	11 (6.35)		23 (8.39)	17 (7.98)		19 (8.08)	14 (8.09)		21 (7.66)	23 (10.79)	
	Clinical	188 (88.26)	143 (80.33)		18 (6.56)	13 (6.10)		176 (74.89)	146 (84.39)		16 (5.84)	11 (5.16)	
3	Somatic	29 (12.34)	17 (9.82)	1.02	222 (81.02)	183 (85.92)	2.84	31 (13.19)	13 (4.76)	7.36*	203 (74.08)	179 (84.03)	10.78*
	Complaints	34 (15.96)	22 (12.71)		28 (10.22)	13 (6.10)		21 (8.93)	28 (16.18)		36 (13.13)	10 (4.69)	
	Clinical	172 (73.19)	134 (77.46)		24 (8.76)	17 (7.98)		183 (77.87)	132 (76.30)		35 (12.77)	24 (11.27)	
4	Thought	93 (39.57)	67 (38.73)	2.52	235 (85.77)	189 (86.85)	2.79	50 (21.27)	27 (15.60)	2.45	208 (75.91)	178 (83.56)	11.56**
	Problem	34 (14.52)	35 (20.23)		20 (7.30)	8 (3.76)		49 (20.85)	43 (24.85)		42 (15.32)	12 (5.63)	
	Clinical	108 (45.96)	71 (41.04)		19 (6.93)	16 (7.51)		136 (57.87)	103 (59.53)		24 (8.75)	23 (10.79)	
5	Attention	37 (15.74)	20 (11.56)	7.65*	235 (85.77)	191 (89.67)	1.85	34 (14.46)	9 (5.20)	9.08*	249 (90.87)	190 (89.20)	.63
	Problem	18 (7.65)	4 (2.31)		19 (6.93)	12 (5.63)		13 (5.53)	11 (6.36)		18 (6.56)	18 (8.45)	
	Clinical	180 (76.59)	149 (86.1)		20 (7.29)	10 (4.69)		188 (80)	153 (88.44)		7 (2.55)	5 (2.34)	
6	Aggressive	32 (13.01)	21 (12.13)	7.24*	236 (86.13)	189 (88.73)	.83	32 (13.61)	27 (15.60)	14.22 **	251 (91.60)	188 (88.26)	2.19
	Behavioral	18 (7.65)	28 (16.18)		19 (6.93)	13 (6.10)		30 (12.76)	46 (26.58)		14 (5.11)	18 (8.45)	
	Problem	185 (78.72)	124 (71.67)		19 (6.93)	11 (4.03)		173 (73.61)	100 (57.80)		9 (3.28)	7 (3.28)	
7	Rule	60 (25.53)	82 (47.39)	24.45**	246 (89.78)	187 (87.79)	3.12	61 (25.95)	96 (55.49)	37.49 **	252 (91.97)	184 (86.38)	4.71
	Breaking	31 (13.19)	25 (14.45)		8 (2.91)	13 (6.10)		68 (28.93)	35 (20.23)		14 (5.11)	15 (7.04)	
	Clinical	144 (61.28)	66 (38.15)		20 (7.29)	13 (6.10)		106 (45.11)	42 (24.27)		8 (2.92)	14 (6.57)	
8	Intrusive	141 (60)	141 (81.50)	21.71**	257 (93.79)	199 (93.42)	2.63	124 (52.76)	120 (69.36)	16.03 **	253 (93.35)	182 (85.44)	6.75*
	Behavioral	34 (14.46)	3 (1.73)		11 (4.01)	5 (2.34)		46 (19.57)	32 (18.49)		16 (5.84)	20 (9.39)	
	Problem	60 (25.53)	19 (10.98)		6 (2.18)	9 (4.23)		65 (27.65)	21 (12.14)		5 (1.82)	11 (5.16)	
9	Internalizing	14 (5.96)	3 (1.73)	4.97	196 (71.53)	161 (61.50)	1.22	8 (3.40)	1 (0.58)	7.91*	175 (63.86)	139 (65.25)	11.18**
	Problem	8 (3.40)	4 (2.31)		24 (8.76)	14 (6.57)		11 (4.68)	2 (1.16)		24 (8.75)	36 (16.90)	
	Clinical	213 (90.63)	166 (95.95)		54 (19.71)	38 (17.84)		216 (91.9)	170 (98.26)		75 (27.37)	38 (17.84)	
10	Externalizing	37 (15.74)	21 (12.13)	18.42**	161 (58.75)	168 (78.07)	50.92**	21 (8.93)	9 (5.20)	7.79*	224 (81.75)	157 (73.70)	5.69
	Problem	7 (2.97)	25 (14.45)		10 (3.64)	23 (10.79)		20 (8.51)	29 (16.76)		19 (6.93)	27 (12.67)	
	Clinical	191 (81.27)	127 (73.41)		103 (37.59)	22 (10.33)		194 (82.55)	135 (78.03)		31 (11.31)	29 (13.61)	
11	Total	24 (10.21)	8 (4.62)	6.70*	209 (76.28)	168 (78.87)	1.93	16 (6.80)	0 (0)	12.29 **	211 (77.01)	160 (75.11)	60
	Problem	8 (3.40)	2 (11.56)		23 (8.39)	11 (5.16)		7 (2.97)	5 (2.89)		17 (6.20)	17 (7.98)	
	Clinical	203 (86.38)	163 (94.22)		42 (15.32)	34 (15.96)		212 (90.21)	168 (97.10)		46 (16.71)	36 (16.90)	

* $p < .05$. ** $p < .001$.

Table 28 indicates that significant differences (for ASR) exist across gender in clinical sample for the diagnostic categories of the problem behaviors. Among these, female scored higher on clinical diagnostic category (as compared to borderline and normal) for anxious depressed problems, attention problem, and total problem. However, male scored higher on aggressive behavior, rule breaking, intrusive behavior, and externalizing behavioral problem. Non-significant differences are apparent for internalizing behavioral problem across gender in clinical adults. For non-clinical sample, only significant difference is apparent for externalizing behavioral problems as they are more prevalent in males in comparison to females.

Table 28 further indicates that significant differences (for ABCL) exist across gender in both samples for the diagnostic category (clinical) across problem behaviors. Problem behaviors including anxious depressed, withdrawn, attention, internalizing, and total problems are more prevalent in females for clinical sample in case of ABCL based scales as compared to males. However, somatic complaints, aggressive behaviors, rule breaking, intrusive, and externalizing are more apparent in males. Non-significant differences across gender are apparent on the clinical sample on ABCL. Similarly, for non-clinical sample, across narrow band scales significant differences are apparent for somatic complaints, thought problems, and intrusive problems. These problems are more prevalent in males as compared to females. Across broad band scales only significant difference is apparent on internalizing behavioral problems. As these are more prevalent in males in comparison to females.

Figure 5 and 6 provides a graphical representation of the above-mentioned problem behaviors across gender of both samples. The direction of results is similar to the description given above.

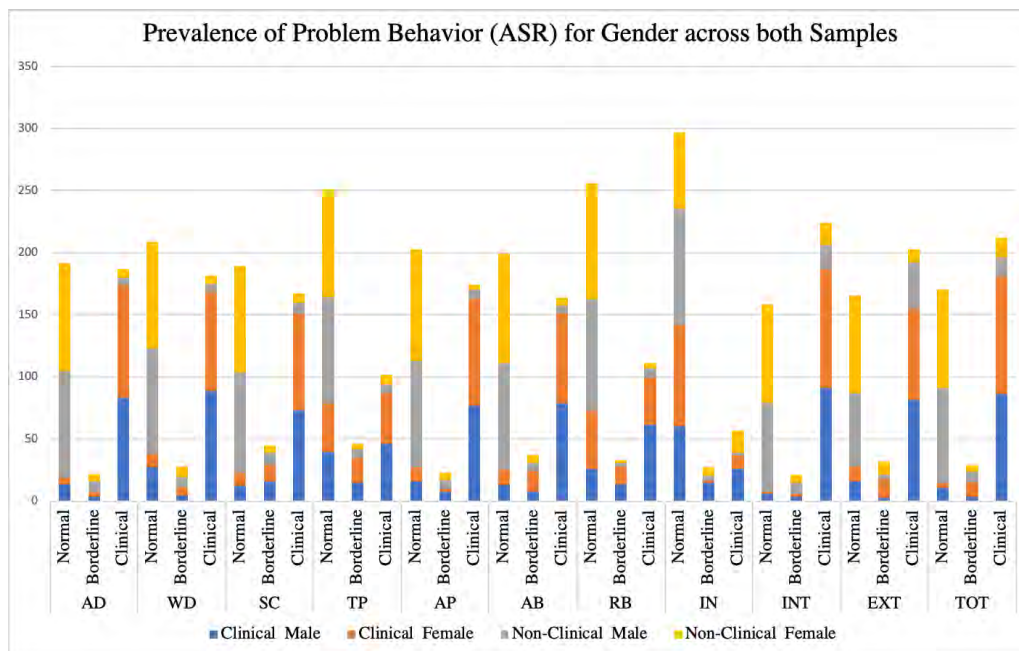


Figure 5. Prevalence of Problem Behavior ASR across Gender

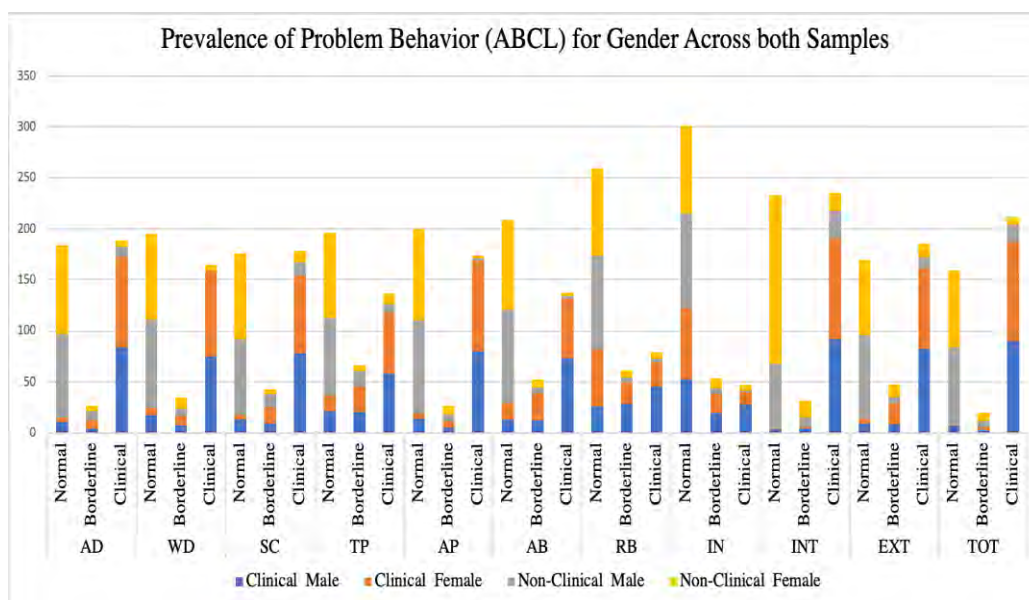


Figure 6. Prevalence of Problem Behavior ABCL across Gender

Furthermore, in order to compare ADP IV scales across gender for clinical and non-clinical sample chi-square was also computed.

Table 29
Chi square Analysis for ADP IV across Gender for Clinical (N = 408) and Non-Clinical (N = 487) Sample

Personality Disorders	Diagnosis	Clinical (N = 408)			Non-Clinical (N = 487)		
		Male	Female	χ^2 , df(1)	Male	Female	χ^2 , df(1)
		(n = 235) f(%)	(n = 173) f(%)		(n = 274) f(%)	(n = 213) f(%)	
Paranoid	Diagnosed	84(35.74)	39 (22.54)	8.24*	8 (2.92)	11 (5.16)	1.61
	Undiagnosed	151(64.25)	134 (77.4)		226 (82.48)	202 (94.84)	
Schizoid	Diagnosed	83(35.32)	35 (20.23)	11.03**	3 (1.09)	4 (1.88)	-
	Undiagnosed	152 (64.68)	138 (79.76)		271 (98.91)	209 (98.12)	
Schizotypal	Diagnosed	63 (26.81)	24 (13.87)	9.93*	4 (1.46)	3 (1.41)	-
	Undiagnosed	172 (73.19)	149 (86.12)		270 (98.54)	210 (98.59)	
Antisocial	Diagnosed	53 (22.55)	7 (4.04)	29.20***	2 (.73)	1 (.47)	-
	Undiagnosed	182 (77.4)	166 (95.95)		272 (99.27)	212 (99.53)	
Borderline	Diagnosed	119 (50.63)	65 (37.58)	6.87	9 (3.28)	9 (4.23)	.30
	Undiagnosed	116 (49.36)	108 (62.42)		265 (96.72)	204 (95.78)	
Histrionic	Diagnosed	30 (12.76)	5 (2.89)	12.39***	2 (.73)	1 (.47)	-
	Undiagnosed	205 (87.23)	168 (97.11)		272 (99.27)	212 (99.53)	
Narcissism	Diagnosed	48 (20.42)	7 (4.04)	22.92***	9 (3.28)	2 (.94)	-
	Undiagnosed	205 (87.23)	168 (97.10)		265 (96.72)	211 (99.06)	
Avoidant	Diagnosed	59 (25.10)	20 (11.56)	11.17**	10 (3.65)	10 (4.69)	.33
	Undiagnosed	176 (74.89)	153 (88.43)		265 (96.72)	203 (95.31)	
Dependent	Diagnosed	51 (19.25)	18 (10.40)	9.05*	4 (1.46)	9 (4.22)	-
	Undiagnosed	184 (78.29)	155 (89.60)		270 (98.54)	204 (95.78)	
Obsessive Compulsive	Diagnosed	77 (32.77)	34 (19.65)	8.65*	19 (6.93)	25 (11.74)	3.63
	Undiagnosed	158 (67.23)	139 (80.34)		255 (93.07)	188 (88.26)	
NOS. Depressive	Diagnosed	48 (20.42)	29 (16.76)	.87	2 (.73)	8 (3.76)	-
	Undiagnosed	187 (75.79)	144 (83.24)		272 (99.27)	205 (96.24)	
NOS. Passive Aggressive	Diagnosed	70 (27.78)	38 (21.96)	3.13	4 (1.46)	13 (6.10)	-
	Undiagnosed	165 (70.21)	135 (70.03)		270 (98.54)	200 (93.90)	

* $p < .05$. ** $p < .001$.

Table 29 indicates that significant differences exist across gender: paranoid, schizoid, schizotypal, antisocial, narcissistic, histrionic, avoidant, dependent, and obsessive-compulsive personality disorders were more prevalent in males in comparison to females for clinical sample. Non-significant differences exist with reference to borderline personality disorder for clinical sample. For non-clinical sample some chi-squares cannot be computed as the count is less than 5, while other differences were non-significant.

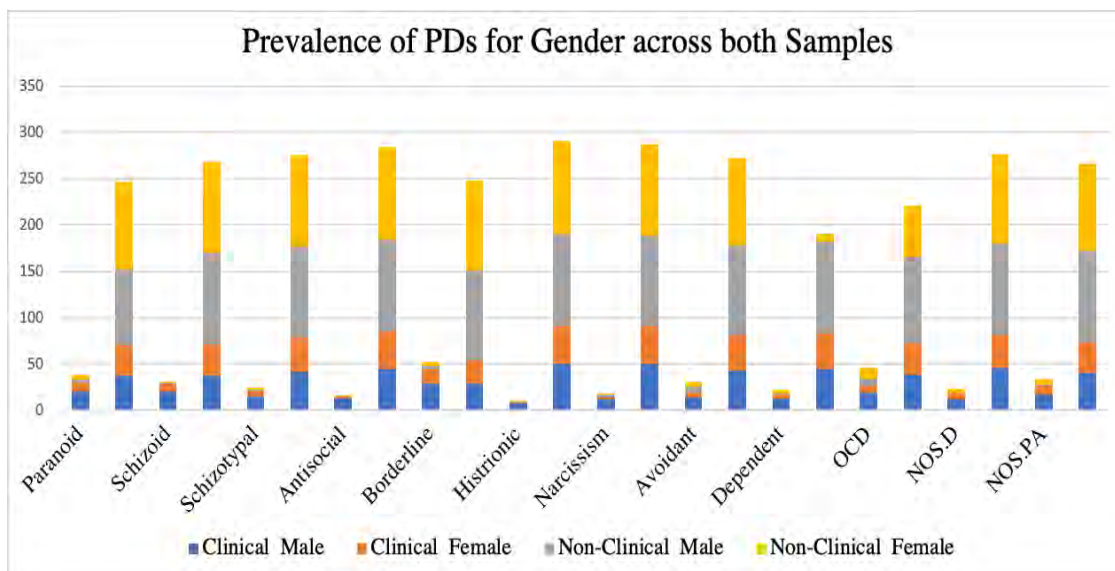


Figure 7. Prevalence of Personality Disorders across Gender

The graphical representation of the salient findings of the PDs across gender for both samples is represented in Figure 7.

In order to compare ASR and ABCL syndrome-based scales across age, for both samples, chi-square was computed.

Table 30
Chi-square for ASR and ABCL Syndrome based Scales across Age for Clinical (N = 408) and Non-Clinical (N = 487) Sample

Syndrome	Diagnosis	ASR						ABCL					
		Clinical (N = 408)			Non-Clinical (N = 487)			Clinical (N = 408)			Non-Clinical (N = 487)		
		18-35 yrs (n = 204)	36-59 yrs (n = 204)	$\chi^2, df(2)$	18-35yrs (n = 349)	36-59 yrs (n = 138)	$\chi^2, df(2)$	18-35 yrs (n = 204)	36-59 yrs (n = 204)	$\chi^2, df(2)$	18-35yrs (n = 349)	36-59 yrs (n = 138)	$\chi^2, df(2)$
		f(%)	f(%)		f(%)	f(%)		f(%)	f(%)		f(%)	f(%)	
1	Anxious	29 (14.21)	12 (5.88)	7.84*	298 (85.38)	122 (88.40)	.88	22 (10.70)	10 (4.90)	6.53*	291 (83.38)	121 (87.68)	1.41
	Depressed	7 (3.43)	8 (3.97)		26 (7.44)	9 (6.52)		9 (4.41)	19 (9.31)		27 (7.73)	8 (5.79)	
	Clinical	168 (82.35)	184 (90.19)		25 (7.16)	7 (5.07)		173 (84.80)	178 (87.25)		31 (8.88)	9 (6.52)	
2	Withdrawn	30 (14.71)	25 (12.25)	1.43	291 (83.38)	125 (90.57)	4.91	29 (14.21)	24 (11.76)	9.68*	291 (83.38)	125 (90.57)	4.12
	Borderline	13 (6.37)	9 (4.41)		31 (8.88)	9 (6.52)		8 (3.12)	25 (12.25)		36 (10.31)	8 (5.79)	
	Clinical	161 (78.92)	170 (83.33)		27 (7.73)	4 (2.89)		167 (81.86)	155 (75.98)		22 (6.45)	5 (3.62)	
3	Somatic	27 (13.23)	19 (9.31)	2.68	283 (81.08)	122 (88.40)	4.74	28 (13.72)	16 (7.84)	3.68	226 (64.76)	116 (84.05)	4.11
	Complaints	31 (15.19)	25 (12.25)		35 (10.02)	6 (4.34)		24 (11.76)	25 (12.25)		38 (10.88)	8 (5.79)	
	Clinical	146 (71.56)	160 (78.43)		31 (8.88)	10 (7.24)		152 (74.50)	163 (79.90)		45 (12.89)	14 (10.14)	
4	Thought	82 (40.19)	78 (38.23)	.86	301 (86.24)	123 (89.13)	1.29	40 (19.61)	37 (18.14)	2.75	270 (77.36)	116 (84.06)	4.75
	Problem	31 (15.19)	38 (18.60)		20 (5.73)	8 (5.79)		39 (19.11)	53 (25.99)		39 (11.17)	15 (10.86)	
	Clinical	91 (44.61)	88 (43.13)		28 (8.02)	7 (5.07)		125 (61.27)	114 (55.88)		40 (11.46)	7 (5.07)	
5	Attention	41 (20.09)	16 (7.84)	15.52**	306 (87.67)	120 (86.95)	.28	26 (12.75)	17 (8.33)	14.38**	313 (37.53)	126 (91.30)	-
	Problem	14 (6.86)	8 (3.97)		21 (6.01)	10 (5.95)		20 (9.80)	4 (1.96)		26 (7.44)	10 (7.24)	
	Clinical	149 (73.03)	180 (88.23)		22 (6.30)	8 (5.79)		158 (77.45)	183 (87.70)		10 (2.86)	2 (1.44)	
6	Aggressive	30 (14.70)	23 (11.27)	3.04	300 (85.95)	125 (90.57)	2.82	27 (13.23)	32 (15.68)	.51	311 (89.11)	128 (92.75)	-
	Behavioral	27 (13.23)	19 (9.31)		27 (7.73)	5 (3.62)		39 (19.12)	37 (18.13)		25 (7.16)	7 (5.07)	
	Problem	147 (72.05)	162 (79.41)		22 (6.30)	8 (5.79)		138 (67.64)	135 (66.17)		13 (3.72)	3 (2.17)	
7	Rule Breaking	80 (39.21)	62 (30.39)	3.83	306 (87.67)	127 (92.02)	2.09	79 (38.72)	78 (38.23)	11.65**	308 (88.25)	128 (92.75)	2.82
	Borderline	28 (13.72)	28 (13.72)		16 (4.58)	5 (3.62)		38 (18.62)	65 (31.86)		22 (6.30)	7 (5.07)	
	Clinical	96 (47.05)	114 (55.88)		27 (7.74)	6 (4.34)		87 (42.62)	61 (29.90)		19 (5.44)	3 (2.17)	
8	Intrusive	149 (73.03)	133 (65.19)	7.07*	325 (93.12)	131 (94.92)	-	122 (59.80)	122 (59.80)	.10	308 (88.25)	127 (92.02)	7.29*
	Behavioral	15 (7.35)	32 (15.68)		10 (2.86)	6 (4.68)		40 (19.61)	38 (18.62)		32 (9.16)	4 (2.89)	
	Problem	40 (19.60)	39 (19.11)		14 (4.01)	1 (.17)		42 (20.58)	44 (21.56)		9 (2.57)	7 (5.07)	
9	Internalizing	9 (4.41)	8 (3.92)	8.71*	247 (70.77)	110 (79.71)	4.16	5 (2.45)	4 (1.96)	2.12	211 (60.45)	103 (74.63)	9.12*
	Problem	11 (5.39)	1 (.49)		29 (8.30)	9 (6.52)		9 (4.41)	4 (19.96)		46 (13.18)	14 (10.14)	
	Clinical	184 (90.19)	195 (95.58)		73 (20.92)	19 (13.76)		190 (93.13)	196 (96.07)		92 (26.36)	21 (12.50)	
10	Externalizing	29 (14.21)	29 (14.21)	8.81*	248 (71.06)	81 (58.69)	8.49*	16 (7.84)	14 (6.86)	1.94	267 (76.50)	114 (82.60)	2.23
	Problem	24 (11.76)	8 (3.97)		24 (6.87)	9 (6.52)		20 (9.80)	29 (14.21)		35 (10.02)	11 (7.97)	
	Clinical	151 (74.01)	167 (81.86)		77 (22.06)	48 (34.78)		168 (82.35)	161 (78.92)		47 (13.46)	13 (9.42)	
11	Total Problem	20 (9.80)	12 (5.88)	3.94	266 (76.21)	111 (7.97)	1.03	10 (4.90)	6 (2.94)	1.43	259 (74.21)	112 (81)	3.17
	Borderline	7 (3.43)	3 (1.47)		26 (7.44)	8 (5.79)		7 (3.43)	5 (2.45)		28 (8.02)	6 (4.34)	
	Clinical	177 (80.76)	189 (92.65)		57 (16.33)	19 (13.77)		187 (91.66)	193 (94.60)		62 (17.76)	20 (11.90)	

* $p < .05$. ** $p < .001$.

Table 30 illustrates ASR and ABCL prevalence on diagnostic categories across age for both samples. For ASR, it indicates that significant differences exist across age in clinical sample for problem behaviors including; anxious depressed, attention problem, intrusive, internalizing, and externalizing problems. Furthermore, clinical diagnosis (as compared to borderline and normal) is more prevalent in late adulthood as compared to early adult hood. For non-clinical sample, only significant difference is apparent across externalizing behavioral problem being more prevalent in early adulthood as compared to late adulthood.

Similarly, Table 30 further elaborates prevalence of problem behavior for ABCL across age. Significant differences exist across age in clinical sample for problem behaviors including; anxious depressed, withdrawn, attention, and internalizing behavioral problem. Clinical diagnosis is more prevalent in late adulthood as compared to early adult hood. However, for non-clinical sample, only significant difference is across externalizing behavioral problem being more prevalent in early adulthood as compared to late adulthood.

The detailed and elaborative picture of these differences across age and sample for ASR and ABCL is graphically represented in Figure 8 and 9 below.

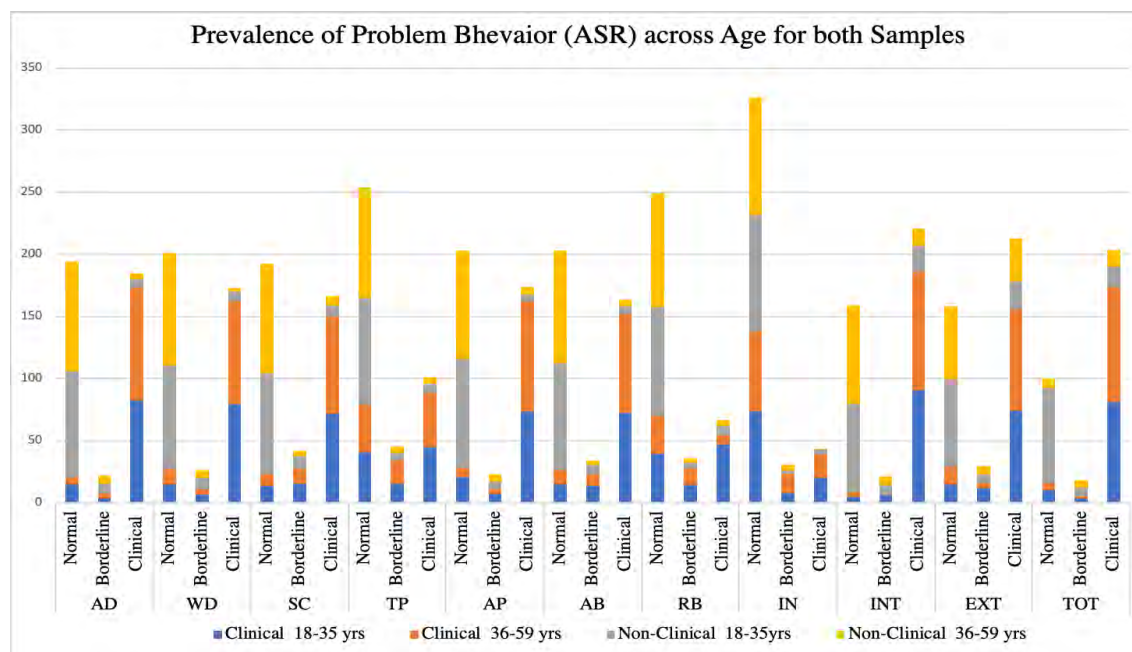


Figure 8. Prevalence of Problem Behaviors (ASR) across Age

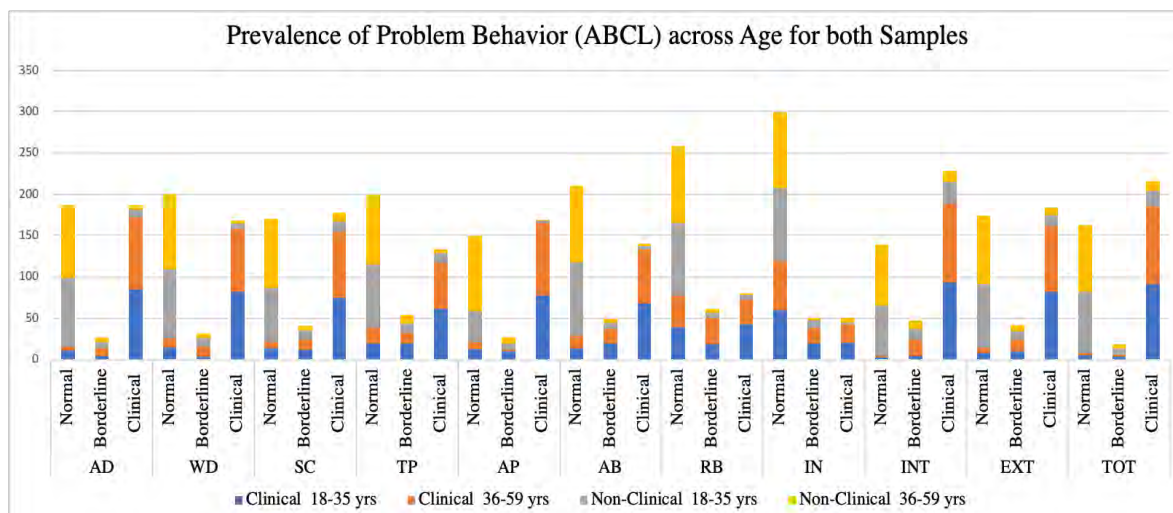


Figure 9. Prevalence of Problem Behaviors (ABCL) across Age

In order to compare ADP IV scales across age for clinical and non-clinical sample chi-square was computed.

Table 31

Chi-square for ADP IV across Age for Clinical ($N = 408$) and Non-Clinical ($N = 487$) Sample

Personality Disorders	Diagnosis	Clinical ($N = 408$)			Non-Clinical ($N = 487$)		
		18-35 yrs ($n = 204$)	36-59 yrs ($n = 204$)	$\chi^2, df(1)$	18-35 yrs ($n = 349$)	36-59 yrs ($n = 138$)	$\chi^2, df(1)$
		f (%)	f (%)		f (%)	f (%)	
Paranoid	Diagnosed	68 (33.33)	55 (26.96)	1.97	13 (3.72)	6 (4.34)	.10
	Undiagnosed	136 (66.66)	149 (73.03)		336 (96.27)	132 (95.65)	
Schizoid	Diagnosed	59 (28.92)	59 (28.92)	.00	6 (1.72)	2 (1.45)	-
	Undiagnosed	145 (71.07)	145 (71.07)		334 (95.70)	136 (98.55)	
Schizotypal	Diagnosed	47 (23.03)	40 (19.60)	.72	4 (1.15)	3 (2.17)	-
	Undiagnosed	157 (76.96)	164 (80.39)		345 (98.85)	135 (97.82)	
Antisocial	Diagnosed	39 (19.11)	21 (10.29)	6.33	3 (57.36)	0 (0)	-
	Undiagnosed	165 (80.88)	183 (89.70)		346 (99.14)	138 (100)	
Borderline	Diagnosed	95 (46.56)	89 (43.62)	.36	13 (3.72)	5 (3.62)	.003
	Undiagnosed	109 (53.43)	115 (56.37)		336 (96.27)	133 (96.37)	
Histrionic	Diagnosed	25 (12.25)	10 (4.90)	7.03*	2 (.57)	1 (.72)	-
	Undiagnosed	179 (87.74)	194 (95.09)		347 (99.42)	137 (99.27)	
Narcissism	Diagnosed	30 (14.70)	25 (12.25)	.53	8 (2.29)	3 (2.17)	-
	Undiagnosed	174 (85.29)	179 (87.74)		341 (97.70)	135 (97.82)	
Avoidant	Diagnosed	49 (24.01)	30 (14.71)	5.67*	15 (4.29)	5 (3.62)	.11
	Undiagnosed	155 (75.98)	174 (85.29)		334 (95.70)	133 (96.37)	
Dependent	Diagnosed	38 (18.62)	31 (15.19)	.86	10 (2.86)	3 (2.17)	-
	Undiagnosed	166 (81.37)	173 (84.80)		339 (97.13)	135 (97.82)	
Obsessive Compulsive	Diagnosed	60 (41.66)	51 (25)	1.00	26 (7.44)	18 (13.04)	3.77
	Undiagnosed	144 (70.58)	153 (75)		323 (92.56)	120 (86.95)	
NOS. Depressive	Diagnosed	41 (20.09)	36 (17.64)	.40	5 (1.43)	5 (3.62)	-
	Undiagnosed	163 (79.90)	168 (82.35)		334 (95.70)	133 (96.37)	
NOS. Aggressive	Diagnosed	60 (29.41)	48 (23.52)	1.81	11 (3.15)	6 (4.35)	-
	Undiagnosed	144 (70.59)	156 (76.47)		338 (96.84)	132 (95.65)	

* $p < .05$. ** $p < .001$.

Table 31 indicates that significant differences exist across age in clinical sample for histrionic and avoidant personality disorder. Both were more prevalent among young adults. Non-significant differences are apparent for non-clinical sample. In some cases, chi-square cannot be computed as the frequency count was less than 5. Figure 10 graphically elaborates the significant differences of percentages of diagnosed and undiagnosed PDs across age on ADP IV in detail.

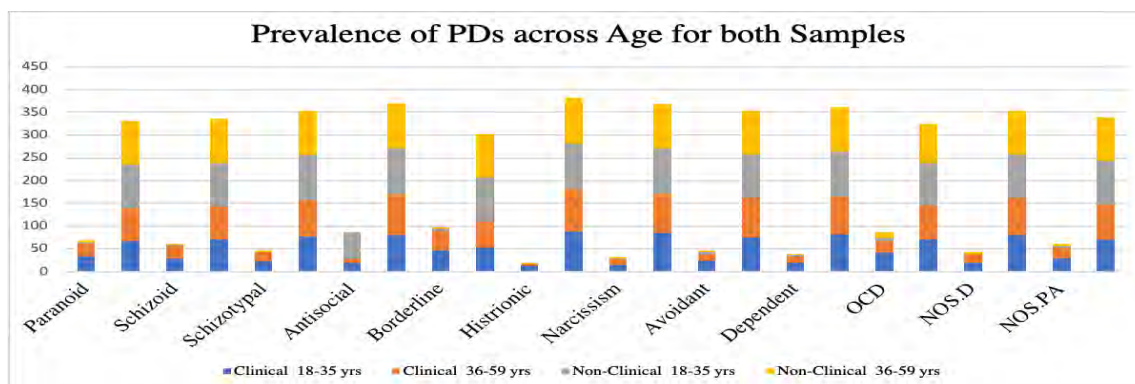


Figure 10. Prevalence of Personality Disorders across Age

Table 32 and 33 represent median number of PD symptoms present across each diagnostic sub-group of ASR (normal, borderline, and clinical) for both samples. Findings indicated that in case of both samples Cluster B symptoms were most prevalent. For clinical sample in case of broad band scale of internalizing behavioral problems nine symptoms of cluster B were present, whereas for externalizing problems eleven symptoms were present. For narrow band scale, symptoms of borderline PD were highest with values ranging between two to six. In case of non-clinical sample, broad band scale of internalizing behavioral problems five symptoms of cluster B was present. For externalizing behavioral problems six symptoms of cluster B were present. Similarly, borderline PD was most prevalent with symptoms ranging from zero to three. In case of clinical sample, the second most prevalent symptoms were of cluster A, where eight symptoms were present for both internalizing and externalizing problems. Across narrow band scales, schizotypal PD symptoms were most prevalent with numbers ranging from one to four. In case of non-clinical sample, the second most prevalent was Cluster C, with four symptoms present in case of externalizing behavioral problems and 3.5 in case of internalizing behavioral

problems. Across narrow band scale, dependent PD symptoms were most prevalent with numbers ranging between zero to two.

Summary for prevalence

Findings regarding prevalence indicate that for clinical sample BPD was most prevalent PD whereas for non-clinical sample OCPD was most prevalent. Across ASR and ABCL, as expected prevalence was much higher among clinical sample in comparison to non-clinical sample. Non-significant differences were apparent across gender on internalizing behavioral problems for both samples. Whereas, externalizing behavioral problems were more prevalent among males in both samples. Except for NOS categories of PDs, all other PDs were more prevalent among males in clinical sample. For non-clinical sample these differences were non-significant.

Table 32

Median Number Personality Disorder Symptoms in subgroups of ASR Syndrome Based Scales among Clinical (N = 408) Sample

Syndrome Based Scales	ASR Subgroups	Par	SZ	ST	CLA	AS	BPD	HPD	NPD	CLB	APD	DPD	OCPD	CLC	DEP	PA
Anxious Depressed	Normal (n = 41)	1	1	1	3	0	2	1	2	6	1	1	1	4	0	0
	Borderline (n = 15)	0	1	1	3	0	2	1	1	6	2	2	1	4	1	0
	Clinical (n = 352)	2	3	3	8	2	5	1	2	10	2	2	2	6	3	3
With drawn	Normal (n = 55)	0	1	1	3	0	2	1	1	5	1	1	1	4	0	0
	Borderline (n = 22)	1	1	1.5	5	.50	2	1	1	5	1.5	2	2	5	1	1.5
	Clinical (n = 331)	2	3	3	8	2	5	1	2	11	2	2	2	7	3	3
Somatic	Normal (n = 46)	1	1	1	4	1	2.5	1	1	6	1	2	2	5	1	.50
	Borderline (n = 56)	2	2	2	7	1	3	1	2	8	1	2	2	5	2	2
	Clinical (n = 306)	2	3	3	8	2	5	1	2	10	2	2	2	6	3	3
Internalizing	Normal (n = 17)	1	0	1	2	0	2	0	1	6	1	1	1	3	0	0
	Borderline (n= 12)	1	1	1	4	1	2	1	1	5.5	1	1.5	1.5	5.5	0	0
	Clinical (n = 379)	2	3	3	8	2	4	1	2	9	2	2	2	6	3	3
Thought Problem	Normal (n = 160)	1	2	2	5.5	1	3	1	1	7	1	2	2	5	2	2
	Borderline (n = 69)	2	2	3	6	2	2	4	1	8	2	2	2	6	3	2
	Clinical (n = 179)	3	3	4	10	2	5	2	2	11	2	2	2	7	3	3
Attention Problem	Normal (n = 57)	0	1	1	3	0	2	1	1	6	1	1	1	4	0	0
	Borderline (n = 22)	1.5	2	2	6	1	3	1	1	7	1.5	2	2	5	2	1.5
	Clinical (n = 329)	2	3	3	8	2	5	1	2	11	2	2	2	7	3	3
Rule Breaking	Normal (n = 142)	1	1	2	4.5	0	3	1	1	5	1	2	1	4.5	2	1
	Borderline (n = 56)	2	2	3	6.5	1	4	1	1	7.5	1.5	2	2	5	3	2
	Clinical (n = 210)	3	3	4	10	3	5.5	2	2	13	2	3	3	8	3	3
Aggressive Behavior	Normal (n = 53)	0	1	1	3	0	2	1	1	5	1	1	1	4	1	0
	Borderline (n = 46)	1	2	2	5	.50	2.5	1	1	5	1	2	2	5	3	2
	Clinical (n = 309)	3	3	3	9	2	5	2	2	11	2	2	2	6	3	3
Intrusive	Normal (n = 282)	2	2	2	6	1	3	1	1	7	1	2	2	5	3	2
	Borderline (n = 47)	3	3	4	10	2	5	2	2	13	2	2	2	6	3	3
	Clinical (n = 79)	3	3	4	11	4	6	3	3	15	3	3	3	10	3	3
Externalizing	Normal (n = 58)	1	1	1	4	0	2	1	1	5	1	2	1	5	1.5	1
	Borderline (n = 32)	1	2	2	6	0	3	1	0	4.5	1	1	1	4	2.5	2.5
	Clinical (n = 318)	2	3	3	8	2	5	2	2	11	2	2	2	6	3	3
Total Problem	Normal (n = 32)	0	1	1	2	0	2	1	1	5.5	1	1	0	3.5	0	0
	Borderline (n = 10)	.50	.50	1.5	3	0	2	1.5	.50	5	1.5	2	2	4.5	1	1
	Clinical (n = 366)	2	3	3	8	2	4	1	2	10	2	2	2	6	3	3

Table 33

Median Number Personality Disorder Symptoms in subgroups of ASR Syndrome Based Scales among Non-Clinical (N = 487) Sample

Scales	ASR Subgroups	Par	SZ	ST	CLA	AS	BPD	HPD	NPD	CLB	APD	DPD	OCPD	CLC	DEP	PA
Anxious	Normal (n = 420)	0	0	0	1	0	0	0	0	1	0	0	.10	1	0	0
Depressed	Borderline (n = 35)	1	1	1	2	0	1	1	1	3	0	1	1	3	0	0
	Clinical (n = 32)	1.5	0	1	3	1	3	1	1	6.5	1	3	2	6	2.5	2
With Drawn	Normal (n = 416)	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0
	Borderline (n = 40)	1	1	1	3.5	0	1	1	1	3	1	1.5	1	4.5	.50	0
	Clinical (n = 31)	1	1	1	3	1	2	1	1	7	1	2	2	5	1	1
Somatic	Normal (n = 405)	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0
	Borderline (n = 41)	1	0	0	2	0	1	0	1	3	1	0	1	3	0	1
	Clinical (n = 41)	1	0	1	3	1	2	1	1	5	0	1	1	3	0	1
Internalizing	Normal (n = 357)	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0
	Borderline (n = 38)	1	.50	1	2	0	1	1	1	4	1	.50	2	3.5	0	1
	Clinical (n = 92)	1	1	1	3	0	2	1	1	5	1	1	1	3	1	1
Thought Problem	Normal (n = 424)	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0
	Borderline (n = 28)	0	0	0	2	0	2	1	2	5	.50	.50	1	2.5	.50	1
	Clinical (n = 35)	0	0	1	2	1	2	1	1	5	0	1	2	3	0	0
Attention Problem	Normal (n = 426)	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0
	Borderline (n = 31)	0	1	1	2	1	2	1	1	5	1	1	1	3	0	1
	Clinical (n = 30)	1	.50	1	3	1	2.5	1	1	6	1	2.5	1.5	5	1	1
Rule Breaking	Normal (n = 433)	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0
	Borderline (n = 21)	0	0	1	2	0	2	1	1	4	1	1	1	3	1	1
	Clinical (n = 33)	1	0	1	2	1	1	1	1	4	0	1	1	3	0	0
Aggressive Behavior	Normal (n = 425)	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0
	Borderline (n = 32)	1	1	1	3	1	2	1	1	5	1	1	1.5	3.5	1	1
	Clinical (n = 30)	1	1	0	2	0	1.5	.50	1	6	0	.50	1	3	0	.50
Intrusive	Normal (n = 456)	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0
	Borderline (n = 16)	1	0	.50	2	.50	1	1	1.5	3	0	0	1	2	0	0
	Clinical (n = 15)	0	0	1	2	0	1	0	1	5	0	0	2	3	0	0
Externalizing	Normal (n = 329)	0	0	0	1	0	0	0	0	1	0	0	1	1	0	0
	Borderline (n = 33)	1	1	1	3	1	2	2	1	2	1	2	2	4	0	0
	Clinical (n = 125)	0	0	0	1	0	1	0	1	6	0	0	1	2	0	0
Total Problem	Normal (n = 377)	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0
	Borderline (n = 34)	1	0	.50	2	0	1	1	1	2.5	1	1	1	2	0	0
	Clinical (n = 76)	1	1	1	3	1	2	1	1	6	1	2	1	4	1	1

Results for establishing correlation and prediction

After establishing psychometrics and prevalence, the next part of the study aims to test the hypotheses of the study. This section aims to test the objective of establishing the relationship between PDs and problem behavior.

A priori sample estimation was carried out using Gpower (Version 3.1.9.6) with medium effect size, error probability ($\alpha = .05$), and sample power (.95), the adequate sample size was 138. Therefore, both clinical ($N = 408$) and non-clinical samples ($N = 487$) of the present study were enough to test the relationship between study variables through Pearson Product Moment Correlation.

Table 34 indicated that significant positive relationship is evident between all the syndrome subscales of ASR and Cluster A PDs including paranoid, schizoid, and schizotypal for clinical sample. Similarly, significant positive relationship was apparent between all ASR syndrome scales and Cluster B PDs including anti-social, borderline, histrionic, and narcissistic. In addition to it, ASR syndrome scales had significant positive relationship with all Cluster C disorders including avoidant, dependent, and obsessive-compulsive except for somatic complaints which was non-significant. In all the relationship of ASR syndrome scales with over all cluster total, NOS depressive, and NOS passive aggressive was also significant and positive.

In Contrast for non-clinical sample the relationship between ASR syndrome and Cluster A including paranoid, schizoid, and schizotypal PD was positive and significant. Similar patterns were evident for ASR syndrome and Cluster B disorders including anti-social, borderline, narcissistic, and histrionic PD where all relationships were significant and positive. In addition to it, ASR syndrome scales had significant positive relationship with all Cluster C disorders including avoidant, dependent, and obsessive-compulsive PD. In all the relationship of ASR syndrome scales with over all cluster total, NOS depressive and NOS passive aggressive was also significant and positive.

In order to assess relationship between ABCL broad and narrow band scales and ADP IV clusters, Pearson Product Moment Correlation was computed.

Table 34

Correlation between ASR Syndrome Based Scales and ADP IV across Clinical (N = 408) and Non-Clinical (N = 487) Sample

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1	-	.79**	.60**	.83**	.45**	.65**	.39**	.31**	.93**	.33**	.84**	.34**	.32**	.33**	.27**	.44**	.22**	.10*	.20**	.31**	.17**	.57**	.43**	.41**	.31**	.25**	.36**
2	.73**	-	.56**	.76**	.42**	.65**	.45**	.36**	.87**	.37**	.82**	.39**	.38**	.42**	.33**	.40**	.21**	.24*	.20**	.27**	.15**	.52**	.44**	.47**	.32**	.24**	.38**
3	.58**	.48**	-	.58**	.37**	.51**	.24**	.18**	.82**	.20**	.66**	.24**	.16**	.21**	.18**	.29**	.04	-.02	.05	.12*	.02	.36**	.22**	.24**	.16**	.07	.17**
4	.74**	.70**	.58**	-	.49**	.74**	.51**	.39**	.83**	.43**	.89**	.44**	.39**	.44**	.42**	.48**	.30**	.19**	.21**	.31**	.17**	.54**	.45**	.50**	.41**	.26**	.43**
5	.50**	.43**	.51**	.52**	-	.49**	.33**	.23**	.47**	.33**	.60**	.49**	.32**	.41**	.30**	.46**	.20**	.22**	.16**	.23**	.23**	.34**	.34**	.49**	.35**	.23**	.40**
6	.72**	.66**	.58**	.71**	.60**	-	.66**	.62**	.69**	.60**	.88**	.53**	.38**	.48**	.63**	.62**	.37**	.33**	.18**	.25**	.22**	.45**	.52**	.55**	.58**	.25**	.53**
7	.60**	.57**	.47**	.65**	.59**	.68**	-	.66**	.41**	.72**	.72**	.42**	.43**	.48**	.72**	.59**	.53**	.51**	.33**	.38**	.39**	.31**	.53**	.54**	.69**	.41**	.63**
8	.42*	.39**	.34**	.48**	.47**	.64**	.61**	-	.32**	.62**	.60**	.35**	.42**	.48**	.63**	.52**	.55**	.52**	.34**	.39**	.40**	.24**	.44**	.49**	.65**	.42**	.60**
9	.94**	.83**	.79**	.79**	.56**	.77**	.64**	.45**	-	.34**	.88**	.37**	.32**	.37**	.29**	.43**	.18**	.08	.17**	.27**	.13**	.56**	.41**	.42**	.30**	.21**	.35**
10	.31**	.31**	.25**	.35**	.29**	.43**	.41**	.41**	.34**	-	.59**	.37**	.40**	.44**	.60**	.52**	.43**	.41**	.27**	.34**	.35**	.31**	.48**	.67**	.58**	.36**	.54**
11	.87**	.79**	.72**	.87**	.70**	.88**	.78**	.63**	.93**	.42**	-	.53**	.47**	.54**	.58**	.63**	.41**	.33**	.28**	.38**	.28**	.56**	.57**	.40**	.68**	.35**	.58**
12	.44**	.42**	.33**	.34**	.24**	.35**	.24**	.20**	.46**	.17**	.41**	-	.45**	.60**	.53**	.61**	.36**	.43**	.29**	.32**	.36**	.43**	.55**	.83**	.58**	.37**	.66**
13	.35**	.43**	.22**	.31**	.22**	.22**	.18**	.06	.38**	.08	.32**	.53**	-	.71**	.56**	.54**	.52**	.53**	.64**	.63**	.56**	.55**	.67**	.82**	.63**	.69**	.79**
14	.42**	.43**	.31**	.40**	.32**	.34**	.31**	.18**	.45**	.16**	.43**	.66**	.71**	-	.62**	.60**	.56**	.57**	.55**	.58**	.51**	.52**	.66**	.91**	.69**	.62**	.82**
15	.32**	.30**	.28**	.35**	.26**	.36**	.37**	.27**	.35**	.17**	.39**	.53**	.50**	.65**	-	.71**	.62**	.62**	.44**	.44**	.45**	.38**	.60**	.67**	.87**	.52**	.78**
16	.43**	.41**	.32**	.42**	.34**	.46**	.32**	.25**	.49**	.16**	.49**	.67**	.52**	.66**	.63**	-	.56**	.53**	.43**	.48**	.49**	.45**	.62**	.69**	.84**	.53**	.78**
17	.35**	.28**	.22**	.32**	.24**	.31**	.28**	.25**	.34**	.13**	.36**	.61**	.49**	.63**	.61**	.71**	-	.79**	.60**	.69**	.64**	.35**	.58**	.56**	.85**	.73**	.81**
18	.32**	.30**	.27**	.30**	.27**	.33**	.26**	.22**	.35**	.16**	.36**	.65**	.52**	.63**	.58**	.66**	.70**	-	.56**	.60**	.64**	.29**	.58**	.59**	.85**	.68**	.81**
19	.42**	.45**	.25**	.38**	.20**	.28**	.22**	.10*	.43**	.08	.38**	.60**	.65**	.63**	.50**	.63**	.60**	.56**	.60**	.69**	.64**	.47**	.56**	.56**	.59**	.89**	.75**
20	.50**	.43**	.31**	.49**	.30**	.37**	.34**	.21**	.49**	.14**	.48**	.59**	.56**	.60**	.56**	.68**	.67**	.54**	.73**	-	.65**	.50**	.59**	.58**	.66**	.90**	.79**
21	.32**	.32**	.25**	.31**	.19**	.24**	.15**	.13**	.34**	.10*	.31**	.63**	.53**	.58**	.40**	.57**	.51**	.60**	.59**	.61**	-	.34**	.52**	.55**	.65**	.90**	.76**
22	.58**	.45**	.31**	.46**	.27**	.41**	.30**	.13**	.54**	.19**	.48**	.61**	.57**	.69**	.56**	.70**	.62**	.53**	.63**	.68**	.53**	-	.66**	.58**	.44**	.49**	.55**
23	.50**	.40**	.31**	.41**	.26**	.39**	.31**	.19**	.49**	.19**	.46**	.69**	.51**	.69**	.66**	.72**	.66**	.61**	.60**	.67**	.55**	.75**	-	.73**	.70**	.62**	.77**
24	.46**	.49**	.33**	.41**	.30**	.35**	.28**	.17**	.49**	.16**	.45**	.84**	.85**	.92**	.65**	.71**	.66**	.69**	.72**	.67**	.67**	.72**	.73**	-	.74**	.64**	.88**
25	.44**	.38**	.32**	.41**	.33**	.43**	.36**	.29**	.45**	.18**	.47**	.72**	.59**	.75**	.80**	.89**	.88**	.86**	.67**	.72**	.62**	.71**	.77**	.79**	-	.71**	.93**
26	.47**	.46**	.31**	.46**	.27**	.34**	.28**	.17**	.48**	.12**	.45**	.69**	.66**	.69**	.56**	.72**	.68**	.65**	.88**	.90**	.84**	.71**	.70**	.79**	.77**	-	.87**
27	.49**	.47**	.34**	.46**	.33**	.41**	.34**	.24**	.51**	.17**	.50**	.81**	.74**	.84**	.74**	.85**	.82**	.81**	.81**	.82**	.76**	.77**	.79**	.92**	.94**	.91**	-

Note. Bold = Clinical; 1 = ASR Anxious Depressed; 2 = ASR Withdrawn; 3 = ASR Somatic Complaints; 4 = ASR Attention Problem; 5 = ASR Thought Problem; 6 = ASR Aggressive Behavior; 7 = ASR Rule Breaking; 8 = ASR Intrusive; 9 = ASR Internalizing; 10 = ASR Externalizing; 11 = ASR Total Problem; 12 = Paranoid; 13 = Schizoid; 14 = Schizotypal; 15 = Antisocial; 16 = Borderline; 17 = Histrionic; 18 = Narcissism; 19 = Avoidant; 20 = Dependent; 21 = Obsessive Compulsive; 22 = NOS-depressive; 23 = Passive Aggressive; 24 = Cluster A; 25 = Cluster B; 26 = Cluster C; 27 = Total Clusters.

* $p < .05$. ** $p < .001$.

Table 35

Correlation between ABCL Syndrome Based Scales and ADP IV across Clinical (N = 408) and Non-Clinical (N = 487) Sample

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1	-	.74**	.50**	.42**	.76**	.48**	.22**	.16**	.92**	.36**	.75**	.29**	.26**	.28**	.18**	.32**	.15**	.02	.15**	.25**	.12*	.50**	.35**	.33**	.21**	.20**	.27**
2	.66**	-	.41**	.44**	.76**	.63**	.43**	.32**	.85**	.56**	.82**	.37**	.37**	.38**	.36**	.42**	.25**	.15**	.24**	.29**	.20**	.48**	.42**	.44**	.35**	.27**	.39**
3	.59**	.42**	-	.36**	.46**	.31**	.06	.04	.73**	.18**	.49**	.13**	.08	.11*	.09	.18**	-.04	-.05	.02	.08	-.01	.27**	.15**	.13**	.06	.03	.08
4	.45**	.44**	.44**	-	.49**	.47**	.27**	.23**	.48**	.39**	.62**	.46**	.26**	.41**	.32**	.46**	.15**	.15**	.12*	.13**	.15**	.35**	.37**	.45**	.33**	.15**	.35**
5	.74**	.64**	.59**	.58**	-	.68**	.46**	.31**	.79**	.59**	.88**	.42**	.36**	.39**	.40**	.44**	.26**	.17**	.19**	.29**	.14**	.47**	.40**	.46**	.38**	.23**	.40**
6	.72**	.61**	.59**	.55**	.73**	-	.64**	.64**	.55**	.90**	.86**	.48**	.36**	.45**	.64**	.57**	.39**	.39**	.23**	.25**	.25**	.35**	.48**	.51**	.59**	.28**	.53**
7	.57**	.59**	.48**	.63**	.67**	.66**	-	.64**	.27**	.89**	.68**	.40**	.46**	.46**	.72**	.50**	.53**	.53**	.33**	.38**	.38**	.24**	.48**	.51**	.67**	.41**	.61**
8	.45**	.42**	.40**	.44**	.52**	.66**	.60**	-	.20**	.81**	.57**	.33**	.33**	.42**	.58**	.46**	.51**	.54**	.31**	.32**	.38**	.14**	.40**	.43**	.61**	.38**	.54**
9	.93**	.80**	.78**	.52**	.79**	.77**	.64**	.50**	-	.43**	.82**	.32**	.29**	.30**	.24**	.37**	.14**	.04	.16**	.25**	.13*	.50**	.37**	.36**	.24**	.20**	.30**
10	.69**	.64**	.58**	.63**	.76**	.93**	.86**	.81**	.76**	-	.83**	.48**	.45**	.51**	.75**	.59**	.53**	.54**	.32**	.36**	.37**	.30**	.53**	.71**	.40**	.64**	.64**
11	.85**	.75**	.71**	.69**	.88**	.89**	.80**	.67**	.92**	.92**	-	.52**	.45**	.51**	.59**	.60**	.40**	.35**	.28**	.36**	.29**	.49**	.55**	.58**	.58**	.35**	.57**
12	.39**	.36**	.18**	.20**	.27**	.29**	.20**	.14**	.37**	.26**	.33**	-	.45**	.60**	.53**	.61**	.36**	.43**	.29**	.32**	.36**	.43**	.55**	.83**	.58**	.37**	.66**
13	.31**	.38**	.17**	.18**	.26**	.20**	.16**	.06	.34**	.18**	.28**	.53**	-	.71**	.56**	.54**	.52**	.53**	.64**	.63**	.56**	.55**	.67**	.82**	.63**	.69**	.79**
14	.37**	.42**	.17**	.22**	.32**	.29**	.28**	.16**	.38**	.29**	.36**	.66**	.71**	-	.62**	.60**	.56**	.57**	.55**	.58**	.51**	.52**	.66**	.91**	.69**	.62**	.82**
15	.31**	.29**	.22**	.25**	.31**	.31**	.34**	.19**	.32**	.33**	.35**	.53**	.50**	.65**	-	.71**	.62**	.62**	.44**	.49**	.45**	.38**	.60**	.67**	.87**	.52**	.78**
16	.45**	.38**	.25**	.25**	.34**	.38**	.29**	.16**	.44**	.35**	.41**	.67**	.52**	.66**	.63**	-	.56**	.53**	.43**	.48**	.49**	.45**	.62**	.69**	.84**	.53**	.78**
17	.31**	.26**	.12**	.15**	.24**	.22**	.23**	.14**	.28**	.24**	.27**	.61**	.49**	.63**	.61**	.71**	-	.79**	.60**	.69**	.64**	.35**	.58**	.56**	.85**	.73**	.81**
18	.25**	.30**	.18**	.17**	.21**	.27**	.21**	.16**	.29**	.26**	.28**	.65**	.52**	.63**	.58**	.66**	.70**	-	.56**	.56**	.64**	.29**	.58**	.59**	.85**	.68**	.81**
19	.36**	.34**	.13**	.11*	.25**	.17**	.16**	.03	.34**	.16**	.26**	.60**	.65**	.63**	.50**	.63**	.60**	.56**	-	.76**	.63**	.47**	.56**	.56**	.59**	.89**	.75**
20	.44**	.36**	.16**	.17**	.34**	.24**	.28**	.12*	.40**	.26**	.35**	.59**	.56**	.60**	.56**	.68**	.67**	.54**	.73**	-	.65**	.50**	.59**	.58**	.66**	.90**	.79**
21	.27**	.30**	.10*	.10*	.18**	.16**	.12**	.03	.27**	.13**	.21**	.63**	.53**	.58**	.40**	.57**	.51**	.60**	.59**	.61**	-	.34**	.52**	.55**	.65**	.87**	.76**
22	.52**	.41**	.20**	.18**	.36**	.32**	.24**	.07	.47**	.27**	.38**	.61**	.57**	.69**	.59**	.70**	.62**	.53**	.63**	.68**	.53**	-	.66**	.58**	.44**	.49**	.55**
23	.44**	.36**	.21**	.19**	.31**	.30**	.27**	.12*	.41**	.29**	.36**	.69**	.51**	.69**	.66**	.72**	.66**	.61**	.60**	.67**	.55**	.75**	-	.73**	.70**	.62**	.77**
24	.41**	.44**	.20**	.23**	.33**	.30**	.25**	.14**	.42**	.28**	.37**	.84**	.85**	.92**	.65**	.71**	.66**	.69**	.72**	.67**	.67**	.72**	.73**	-	.74**	.64**	.88**
25	.39**	.36**	.22**	.24**	.32**	.35**	.31**	.19**	.39**	.34**	.38**	.72**	.59**	.75**	.80**	.89**	.88**	.86**	.67**	.72**	.62**	.71**	.77**	.79**	-	.71**	.93**
26	.41**	.38**	.15**	.15**	.30**	.22**	.21**	.07	.38**	.21**	.31**	.69**	.66**	.69**	.56**	.72**	.68**	.65**	.88**	.90**	.84**	.71**	.70**	.79**	.77**	-	.87**
27	.44**	.42**	.21**	.23**	.34**	.32**	.28**	.15**	.43**	.31**	.39**	.81**	.74**	.84**	.74**	.85**	.82**	.81**	.81**	.82**	.76**	.77**	.79**	.92**	.94**	.91**	-

Note. Bold = Clinical; 1 = ABCL Anxious Depressed; 2 = ABCL Withdrawn; 3 = ABCL Somatic Complaints; 4 = ABCL Thought Problem; 5 = ABCL Attention Problem; 6 = ABCL Aggressive Behavior; 7 = ABCL Rule Breaking; 8 = ABCL Intrusive; 9 = ABCL Internalizing; 10 = ABCL Externalizing; 11 = ABCL Total Problem; 12 = paranoid; 13 = Schizoid; 14 = Schizotypal; 15 = Antisocial; 16 = Borderline; 17 = Histrionic; 18 = Narcissism; 19 = Avoidant; 20 = Dependent; 21 = Obsessive Compulsive; 22 = NOS-depressive; 23 = Passive Aggressive; 24 = Cluster A; 25 = Cluster B; 26 = Cluster C; 27 = Total Clusters.

* $p < .05$. ** $p < .001$.

For clinical sample positive relationship was apparent between syndrome-based scales of ABCL and Cluster A of Personality disorders including paranoid, schizoid, and schizotypal disorder. For Cluster B and ABCL syndrome-based scales a positive relationship was apparent except for relationship between somatic complaints. A positive relationship was also apparent between Cluster C including avoidant, obsessive compulsive, and dependent PD and all subscales of Syndrome based ABCL scales except somatic complaints. A significant positive relationship was evident between NOS depressive and all syndrome based ABCL syndrome-based subscales. For NOS-passive aggressive significant relationship was apparent with all syndrome-based subscales of ABCL.

For non-clinical sample a positive relationship was evident between syndrome based ABCL subscales and Cluster A PDs including paranoid, schizoid, and schizotypal disorders. For Cluster B and its related disorders i.e., borderline, anti-social, histrionic, and narcissistic disorders the relationship with syndrome-based scales of ABCL all relationship was significant and positive. For Cluster C and its disorders i.e., avoidant, obsessive compulsive, and dependent PD all relationships were significant and positive except for relationship with intrusive behavioral problem which was non-significant. NOS dependent PD had significant positive relationship with all syndrome-based scales of ABCL except for intrusive behavioral problems. NOS passive aggressive PD had significant relationship with all syndrome-based scales.

A priori sample estimation was carried out using Gpower (Version 3.1.9.6) with medium effect size, error probability ($\alpha = .05$), and sample power (.95), the adequate sample size was 115 (three predictors), 129 (four predictors), and 138 (five predictors). Therefore, both clinical ($N = 408$) and non-clinical samples ($N = 487$) of the present study were enough to test prediction through regression analysis.

In order to assess role of personality disorders in prediction of anxious depressed (narrow band scale) stepwise regression analysis was carried out.

Table 36

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Anxious Depressed Problems among Clinical Sample (N = 408)

		Scales	Anxious Depressed					
			β	R^2	ΔR^2	F	95 % CI	
Cluster A	Step 1	Paranoid	.36**	.13		61.56**	[.17,.29]	
	Step 2	Paranoid	.23**	.16	.03	39.79**	[.07,.21]	
		Schizotypal	.23**					[.07,.22]
Cluster B	Step 1	Borderline	.44**	.19		95.78**	[.22,.33]	
	Step 2	Borderline	.53**	.21	.02	55.27**	[.27,.39]	
		Narcissistic	.18*					[.05,.19]
	Step 3	Borderline	.50**	.22	.01	39.47**	[.24,.37]	
		Narcissistic	.31**					[.11,.31]
		Histrionic	.19*					[.04,.28]
Cluster C	Step 1	Dependent	.31**	.09		42.14**	[.16,.29]	
NOS	Step 1	Depressive	.57**	.33		195.59**	[.40,.53]	
Total Clusters	Step 1	NOS. depressive	.52**	.27		195.59**	[.40,.53]	
	Step 2	NOS. depressive	.50**	.31	.04	102.03**	[.33,.49]	
		Cluster A	.12*					[.01,.06]
	Step 3	NOS. depressive	.52**	.33	.02	70.51**	[.34,.51]	
		Cluster A	.19*					[.02,.08]
		Cluster C	.12*			[.01,.06]		

* $p < .05$. ** $p < .001$.

Table 36 indicated that from Cluster A of personality disorders paranoid PD emerged as the strongest predictor of anxious depressed problems and accounted for 13 % variance. In step 2, in addition to paranoid PD, schizotypal PD accounted for an additional 3 % variance. The model excluded schizoid PD. The cumulative variance explained by paranoid and schizotypal PDs in prediction of anxious depressed problems for clinical sample was 16 %.

From Cluster B, borderline PD appeared as the strongest predictor of anxious depressed problems and accounted for 19 % variance. In step 2, narcissistic PD explained an additional 2 % variance. In step 3, in addition to these two histrionic PD accounted for an additional 1 % variance. Anti-social PD was excluded from overall model. Thus borderline, narcissistic, and histrionic PD collectively account for 22 % variance in prediction of anxious depressed problems for clinical sample. From Cluster C only avoidant PD predicted anxious depressed problems as it accounted for 9 % variance. Both obsessive compulsive and dependent PD did not predict anxious depressed problems. From NOS PDs, only NOS depressive predicted anxious depressed problems as it accounted for

33 % variance. NOS specified passive aggressive PD did not predict anxious depressed problems for clinical sample.

From all PDs, NOS depressive emerged as strongest predictor of anxious depressed problems and accounted for 27 % variance. In step 2, addition of Cluster A accounted for an additional 4% variance. In step 3, addition of Cluster C, resulted in another 2 % increase in explained variance. In all NOS depressive, Cluster A and Cluster C collectively accounted for 33 % variance in anxious depressed problems

In order to assess role of PDs in prediction of anxious depressed narrow band scale stepwise regression analysis was carried out.

Table 37

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Anxious Depressed Problems among Non- Clinical Sample (N = 487)

Clusters		Scales	Anxious Depressed				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Paranoid	.44**	.19		115.66**	[.31,.45]
	Step 2	Paranoid	.29**		.03		[.16,.34]
		Schizotypal	.22**	.22		68.63**	[.09,.26]
Cluster B	Step 1	Borderline	.49**	.24		151.34**	[.27,.34]
Cluster C	Step 1	Dependent	.50**	.24		157.79**	[.32,.44]
	Step 2	Dependent	.40**		.01		[.22,.39]
		Avoidant	.13*	.25		82.10**	[.01,.21]
NOS	Step 1	Depressive	.58**	.33		242.85**	[.41,.52]
	Step 2	Depressive	.46**		.01		[.29,.46]
		Passive Aggressive	.16*	.34		127.13**	[.05,.25]
Total Clusters	Step 1	NOS. depressive	.58**	.33		242.85**	[.41,.52]
	Step 2	NOS. depressive	.46**		.01		[.29,.46]
		Passive Aggressive	.16*	.34		127.13**	[.05,.25]

* $p < .05$. ** $p < .001$.

Table 37 indicated that from Cluster A of PDs paranoid emerged as the strongest predictor of anxious depressed problems and accounted for 19 % variance. In step 2, in addition to paranoid, schizotypal accounted for an additional 3 % variance. The model excluded schizoid PD. The cumulative variance explained by paranoid and schizotypal PD in prediction of anxious depressed problems for clinical sample was 22 %.

From Cluster B, only borderline appeared as the strongest predictor of anxious depressed problems and accounted for 24 % variance. Narcissistic, histrionic, and anti-social PDs were excluded from the overall model.

From Cluster C dependent PD in step 1 accounted for 24 % variance. In step 2, addition of dependent PD explained an additional 1 % variance. Obsessive compulsive PD was excluded from overall model. Both avoidant and dependent PD cumulatively accounted for 25 % variance.

From NOS PDs, in step 1 NOS depressive predicted anxious depressed problems as it accounted for 33 % variance. In step 2, NOS specified passive aggressive PD explained an additional 1 % variance. Both collectively accounted for 34 % variance.

From all PDs, NOS depressive emerged as strongest predictor of anxious depressed problems and accounted for 33 % variance. In step 2, addition of NOS passive aggressive PD explained an additional 1 % variance. Both collectively explained 34 % variance. Cluster A, B, and C were excluded from overall model.

In order to assess role of PDs in prediction of withdrawn (narrow band scale) stepwise regression analysis was carried out.

Table 38

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Withdrawn Problems among Clinical Sample (N = 408)

Clusters	Scales	Withdrawn					
		β	R^2	ΔR^2	F	95 % CI	
Cluster A	Step 1	Schizotypal	.42**	.18		87.46**	[.12, .19]
	Step 2	Schizotypal	.29**	.21	.03	52.57**	[.07, .15]
		Paranoid	.21**				
	Step 3	Schizotypal	.18*	.22	.01	37.49**	[.02, .12]
		Paranoid	.21**				
		Schizoid	.15*				
Cluster B	Step 1	Borderline	.40**	.16		79.31**	[.11, .17]
	Step 2	Borderline	.47**	.17	.01	42.73**	[.13, .20]
		Narcissistic	.12*				
	Step 3	Borderline	.36**	.19	.02	31.57**	[.08, .17]
		Narcissistic	.19*				
		Antisocial	.20*				
Cluster C	Step 1	Dependent	.27**	.08		32.92**	[.07, .15]
NOS	Step 1	Depressive	.52**	.27		150.00**	[.20, .27]
	Step 2	Depressive	.41**	.29	.02	80.80**	[.02, .12]
		Passive Aggressive	.17*				
Total Clusters	Step 1	NOS. depressive	.52**	.27		150.00**	[.20, .27]
	Step 2	NOS. depressive	.38**	.31	.04	91.30**	[.12, .21]
		Cluster A	.25**				
	Step 3	NOS. depressive	.41**	.33	.02	66.48**	[.14, .23]
		Cluster A	.35**				
		Cluster C	.19*				

* $p < .05$. ** $p < .001$.

Table 38 indicated that from Cluster A, schizotypal PD predicted withdrawn problems and accounted for 18 % variance. In step 2, addition of paranoid PD explained an additional 3 % variance. In step 3, addition of schizoid PD explained an additional 1 % variance. Collectively, schizotypal, paranoid, and schizoid PD collectively accounted for 22 % variance.

From Cluster B, borderline PD accounted for 16 % variance. In step 2, addition of narcissistic PD accounted for an additional 1 % variance. In step 3 addition of antisocial

PD explained another 2 % variance. Histrionic PD was excluded from overall model. Borderline, narcissistic, and anti-social PD collectively accounted for 19 % variance.

From Cluster C, only dependent PD predicted withdrawn behavioral problems as it accounted for 8 % variance. Both avoidant and obsessive-compulsive PD did not predict withdrawn behavioral problems.

From NOS PDs, depressive accounted for 27 % variance. In step 2, addition of NOS passive aggressive PD explained an additional 2 % variance. Both collectively accounted for 29 % variance. In all NOS depressive emerged as strongest predictor accounting for 27 % variance. In step 2, addition of cluster A explained an additional 4 % variance. In step 3, addition of cluster C explained additional 2 % variance. NOS depressive, Cluster A and Cluster C collectively accounted for 33 % variance in prediction of withdrawn behavioral problems for clinical sample.

In order to assess role of PDs in prediction of withdrawn (narrow band scale) stepwise regression analysis was carried out.

Table 39

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Withdrawn Problems among Non-Clinical Sample (N = 487)

Clusters	Scales	Withdrawn					
		β	R^2	ΔR^2	F	95 % CI	
Cluster A	Step 1	Schizoid	.43**	.19		112.26**	[.16,.23]
	Step 2	Schizoid	.30**				[.09,.18]
		Paranoid	.26**	.23	.04	74.62**	[.07,.14]
	Step 3	Schizoid	.23**				[.05,.16]
		Paranoid	.21**				[.04,.13]
		Schizotypal	.13*	.24	.01	51.39**	[.00,.10]
Cluster B	Step 1	Borderline	.41**	.17		98.45**	[.10,.16]
Cluster C	Step 1	Avoidant	.45**	.20		120.77**	[.15,.21]
	Step 2	Avoidant	.29**				[.07,.16]
		Dependent	.22**	.22	.02	69.08**	[.04,.12]
NOS	Step 1	Depressive	.45**	.21		125.93**	[.14,.20]
	Step 2	Depressive	.35**				[.09,.18]
		Passive Aggressive	.14*	.22	.01	66.24**	[.01,.12]
Total Clusters	Step 1	Cluster A	.49**	.24		152.59**	[.07,.09]
	Step 2	Cluster A	.38**				[.04,.07]
		NOS. Depressive	.21**	.26	.02	85.58**	[.04,.12]

* $p < .05$. ** $p < .001$.

Table 39 indicated that from cluster A, schizoid PD accounts for 19 % variance. In step 2, addition of paranoid PD accounted for additional 4 % variance. In step 3, schizotypal PD explained another 1 % variance. Collectively, schizoid, paranoid, and schizotypal PDs accounted for 24 % variance.

From cluster B, only borderline PD accounted for 17 % variance. Narcissistic, histrionic, and anti-social PDs were excluded from overall model. From cluster C, avoidant PD accounted for 20 % variance. In step 2 addition of dependent PD explained an additional 2 % variance. Obsessive compulsive was excluded from overall model. Both avoidant and dependent PD accounted for 22 % variance.

From NOS, depressive PD accounted for 21 % variance. In step 2, NOS passive aggressive explained another 1 % variance. Both collectively counted for 22 % variance in withdrawn behavioral problems. From all clusters in step 1, Cluster A accounted for 24 % variance. With addition of NOS depressive an additional 2 % variance was explained in step 2. Both collectively accounted for 26 % variance.

In order to assess role of PDs in prediction of somatic complaints (narrow band scale) stepwise regression analysis was carried out.

Table 40

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Somatic Problems among Clinical Sample (N = 408)

Clusters	Scales	Somatic Complaints					
		β	R^2	ΔR^2	F	95 % CI	
Cluster A	Step 1	Paranoid	.24**	.06		24.68**	[.07, .16]
Cluster B	Step 1	Borderline	.29**	.08		38.16**	[.09, .18]
	Step 2	Borderline	.42**	.12	.04	29.11**	[.14, .25]
		Narcissistic	.23**				[.07, .17]
Cluster C	Step 1	Dependent	.12*	.01		5.83*	[.01, .12]
NOS	Step 1	NOS. depressive	.36**	.13		60.46**	[.17, .28]
Total Clusters	Step 1	NOS. depressive	.36**	.13		60.46**	[.17, .28]
	Step 2	NOS. depressive	.43**	.15	.02	34.25**	[.20, .33]
		Cluster C	.14*				[.01, .05]
	Step 3	NOS. depressive	.37**				[.16, .29]
		Cluster C	.22**	.16	.01	25.35**	[.02, .07]
		Cluster A	.17*			[.01, .06]	

* $p < .05$. ** $p < .001$.

Table 40 indicated that from cluster A, only paranoid PD accounted for 6 % variance. Schizoid and schizotypal PDs were excluded from the model. From cluster B, borderline accounted for 8 % variance. In step 2, with addition of narcissistic PD an additional 4 % variance is explained. Anti-social and histrionic PDs were excluded from overall model. Both borderline and narcissistic explained 12 % variance. From Cluster C, only dependent accounted for 1 % variance. Obsessive compulsive and avoidant PDs were excluded from overall model. From NOS, depressive accounted for 13 % variance. In all, NOS depressive accounted for 13 % variance. In step 2 addition of cluster C explained 2 % variance. Addition of Cluster A in step 3 explained another 1 % variance taking the explained variance to 16 %.

In order to assess role of PDs in prediction of somatic complaints (narrow band scale) stepwise regression analysis was carried out.

Table 41

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Somatic Problems among Non-Clinical Sample (N = 487)

Clusters	Scales	Somatic Complaints					
		β	R^2	ΔR^2	F	95 % CI	
Cluster A	Step 1	Paranoid	.33**	.11		57.76**	[.13,.23]
	Step 2	Paranoid	.12**				[.06,.18]
		Schizotypal	.08*	.12	.02	33.35**	[.03,.14]
Cluster B	Step 1	Borderline	.32**	.10		55.72	[.10,.17]
	Step 2	Borderline	.24**				[.06,.15]
		Antisocial	.12*	.11	.01	30.55	[.01,.16]
Cluster C	Step 1	Dependent	.31**	.10		51.17**	[.11,.19]
NOS	Step 1	Passive Aggressive	.31**	.31		52.21**	[.14,.24]
	Step 2	Passive Aggressive	.18*				[.03,.19]
		Depressive	.18*	.11	.01	30.16**	[.03,.16]
Total Clusters	Step 1	Cluster A	.33**			58.68**	[.05,.09]
	Step 2	Cluster A	.22**	.11			[.02,.07]
		NOS. Depressive	.15*	.12	.01	32.81**	[.02,.14]

* $p < .05$. ** $p < .001$.

Table 41 indicated that from cluster A, paranoid PDs accounted for 11 % variance. Addition of schizotypal PD in step 2, explained an additional 1 % variance. Schizoid PD was excluded from the overall model. Both paranoid and schizotypal PD accounted for 12 % variance.

From Cluster B, borderline PD explained 12 % variance. With addition of anti-social personality disorder another 1 % variance was explained. Narcissistic and histrionic were excluded from overall model. From cluster C, dependent PD accounted for 10 % variance. Obsessive compulsive and avoidant PDs were excluded from overall model. From NOS, passive aggressive accounted for 31 % variance. In step 2, addition of NOS depressive PDs explained 1 % variance. From all clusters, cluster A accounted for 11% variance. In step 2, addition of NOS depressive PD explained another 1 % variance. Both collectively accounted for 12 % variance.

In order to assess role of PDs in prediction of narrow band scale i.e., attention problem stepwise regression analysis was carried out.

Table 42

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Attention Problems among Clinical Sample (N = 408)

Clusters	Scales	Attention Problem					
		β	R^2	ΔR^2	F	95 % CI	
Cluster A	Step 1	Schizotypal	.44**	.19		95.72**	[.22,.33]
	Step 2	Schizotypal	.27**	.24	.05	63.19**	[.11,.24]
		Paranoid	.27**				[.10,.23]
	Step 3	Schizotypal	.16*	.25	.12	44.94**	[.02,.19]
		Paranoid	.27**				[.10,.23]
		Schizoid	.16*				[.03,.22]
Cluster B	Step 1	Borderline	.48**	.23		121.85**	[24,.34]
	Step 2	Borderline	.37**	.24	.12	64.80**	[.15,.30]
		Antisocial	.15*				[.02,.19]
	Step 3	Borderline	.40**	.26	.17	47.24**	[.17,.31]
		Antisocial	.24**				[.07,.25]
		Narcissistic	.17*				[.04,.18]
	Step 4	Borderline	.34**	.27	.11	37.37**	[.15,.30]
		Antisocial	.21*				[.06,.23]
		Narcissistic	.29**				[.09,.28]
		Histrionic	.18*				[.03,.26]
Cluster C	Step 1	Dependent	.31**	.10		43.62**	[.15,.29]
NOS	Step 1	Depressive	.54**	.29		164.46**	[.36,.49]
	Step 2	Depressive	.42**	.31	.02	89.09**	[.25,.42]
		Passive Aggressive	.18*				[.05,.22]
Total Clusters	Step 1	NOS. depressive	.54**	.29		164.46**	[.36,.49]
	Step 2	NOS. depressive	.37**	.34	.05	104.59**	[.22,.37]
		Cluster A	.28**				[.05,.10]
	Step 3	NOS. depressive	.40**	.36	.02	74.90**	[.24,.40]
		Cluster A	.37**				[.07,.13]
		Cluster C	.17*				[.02,.07]
	Step 4	NOS. depressive	.42**	.38	.02	60.79**	[.25,.41]
		Cluster A	.25**				[.03,.10]
		Cluster C	.27**				[.04,.10]
Cluster B		.23*	[.02,.07]				

* $p < .05$. ** $p < .001$.

Table 42 indicated that from cluster A, schizotypal PD accounted for 19 % variance. In step 2, addition of paranoid explained an additional 5 % variance. In step 3, with addition of schizoid an additional 1 % variance was explained. The overall model accounted for 25 % variance.

From cluster B, borderline PD accounted for 23% variance. With addition of anti-social PD in step 2, an additional 1 % variance was explained. With addition of narcissistic PD in step 3, an additional 2 % variance is explained. With addition of histrionic PD in step 4 an additional 1 % variance is explained. In all cluster B accounted for 27 % variance in attention problems.

From Cluster C, only dependent PD accounted for 10 % variance. Obsessive compulsive and avoidant PDs were excluded from the model. From NOS, depressive PD accounted for 29 % variance. With addition of NOS passive aggressive PD an additional 2 % variance was explained. From overall clusters, NOS depressive accounted for 29 % variance in step 1. In step 2, addition of cluster A explained an additional 5 % variance. In step 3, addition of cluster C explained 2 % additional variance. In step 4, addition of cluster B explained 2 % more variance. In all NOS depressive, cluster A, cluster B, and cluster C explained 38 % variance.

In order to assess role of PDs in prediction of attention problem (narrow band scale stepwise) stepwise regression analysis was carried out.

Table 43 indicates that from cluster A, schizotypal accounted for 16 % variance. In step 2, addition of paranoid PD explained an additional 1 % variance. Schizoid PD was excluded from the model. From cluster B, borderline PD accounted for 18% variance. With an addition of anti-social PD in step 2, an additional 1 % variance was explained. Narcissistic and histrionic PDs were excluded from the model. From Cluster C, only dependent PD accounted for 24 % variance. Obsessive compulsive and avoidant PDs were excluded from the model. From NOS, depressive PD accounted for 21 % variance. With addition of NOS passive aggressive PD an additional 1 % variance was explained. From overall clusters, NOS depressive accounted for 21 % variance in step 1. In step 2, addition of cluster C explained an additional 4 % variance. Overall, NOS depressive and cluster C explained 24 % variance.

Table 43

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Attention Problems among Non-Clinical Sample (N = 487)

Clusters	Scales	Attention Problems					
		β	R^2	ΔR^2	F	95 % CI	
Cluster A	Step 1	Schizotypal	.40**	.16		94.32**	[.19,.29]
	Step 2	Schizotypal	.31**				[.12,.25]
		Paranoid	.14*	.17	.01	50.81**	[.02,.16]
Cluster B	Step 1	Borderline	.42**	.18	.18	104.57**	[.17,.25]
	Step 2	Borderline	.34**				[.12,.22]
		Antisocial	.13*	.19	.01	55.88**	[.02,.19]
Cluster C	Step 1	Dependent	.49**	.24		154.34**	[.24,.32]
NOS	Step 1	Depressive	.46**	.21		126.63**	[.23,.43]
	Step 2	Depressive	.34**				[.13,.28]
		Passive Aggressive	.16*	.22	.01	68.66**	[.03,.20]
Total Clusters	Step 1	NOS. Depressive	.46**	.21		128.63**	[.23,.32]
	Step 2	NOS. Depressive	.27**				[.10,.23]
		Cluster C	.26**	.24	.03	78.25**	[.04,.09]

* $p < .05$. ** $p < .001$.

In order to assess role of PDs in prediction of thought problem (narrow band scale) stepwise regression analysis was carried out.

Table 44 indicated that from cluster A, paranoid PD accounted for 24 % variance. In step 2, addition of schizotypal PD explained an additional 2 % variance. Schizoid was excluded from the model. From cluster B, only borderline PD accounted for 21 % variance. Anti-social, narcissistic, and histrionic PD were excluded from the model. From Cluster C, obsessive compulsive PD accounted for 5 % variance. With addition of dependent PD 1 % additional variance was explained in step 2. Avoidant PD was excluded from the model. From NOS, passive aggressive accounted for 16 % variance. With addition of NOS depressive PD an additional 1 % variance was explained. From overall clusters, cluster A accounted for 24 % variance in step 1. In step 2, addition of cluster C explained an additional 1 % variance. In step 3 addition of NOS depressive PD explained additional 1 % variance. In all cluster A, cluster C, and NOS depressive explained 26 % variance.

Table 44

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Thought Problems among Clinical Sample (N = 408)

Clusters		Scales	Thought Problem				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Paranoid	.49**	.24		127.28**	[.14, .20]
	Step 2	Paranoid	.38*				[.09, .17]
		Schizotypal	.19*	.26	.02	71.36**	[.03, .11]
Cluster B	Step 1	Borderline	.46**	.21		105.87**	[.13, .19]
Cluster C	Step 1	Obsessive Compulsive	.23**	.05		22.0**	[.05, .12]
	Step 2	Obsessive Compulsive	.14*				[.01, .10]
		Dependent	.14*	.06	.01	13.39**	[.00, .11]
NOS	Step 1	Passive Aggressive	.39**	.16		74.35**	[.13, .21]
	Step 2	Passive Aggressive	.30**				[.08, .19]
		Dependent	.14*	.17	.01	40.24**	[.01, .12]
Total Clusters	Step 1	Cluster A	.49**	.24		126.46**	[.06, .09]
	Step 2	Cluster A	.57**				[.07, .10]
		Cluster C	.13*	.25	.01	66.75**	[.01, .04]
	Step 3	Cluster A	.52**				[.06, .10]
		Cluster C	.15*				[.01, .04]
		NOS. depressive	.11*	.26	.01	46.26**	[.00, .10]

* $p < .05$. ** $p < .001$.

In order to assess role of PDs in prediction of thought problem (narrow band scale) stepwise regression analysis was carried out.

Table 45 indicated that from cluster A, schizotypal PD accounted for 10 % variance. Paranoid and schizoid PDs were excluded from the model. From cluster B, only borderline accounted for 11 % variance. Anti-social, narcissistic, and histrionic PDs disorder were excluded from the model. From Cluster C, only PD accounted for 1 % variance. Avoidant and obsessive-compulsive PDs were excluded from the model. From NOS, depressive PD accounted for 7 % variance. With addition of NOS passive aggressive an additional 1 % variance was explained. From overall clusters, only Cluster B accounted

for 11 % variance. Cluster A, cluster C, NOS depressive, and NOS passive aggressive PDs were excluded from the model.

Table 45

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Thought Problems among Non-Clinical Sample (N = 487)

Clusters		Scales	Thought Problem				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Schizotypal	.32**	.10		56.17**	[.08,.13]
Cluster B	Step 1	Borderline	.34**	.11		62.17**	[.07,.11]
Cluster C	Step 1	Dependent	.30**	.01		46.79**	[.07,.12]
NOS	Step 1	Depressive	.27**	.07		36.49**	[.06,.11]
	Step 2	Depressive	.16*				[.01,.09]
		Passive Aggressive	.14*	.08	.01	20.60**	[.00,.10]
Total Clusters	Step 1	Cluster B	.33**	.11		57.23**	[.02,.04]

* $p < .05$. ** $p < .001$.

In order to assess role of PDs in prediction of aggressive behavior (narrow band scale) stepwise regression analysis was carried out.

Table 46 indicated that from cluster A, paranoid PD accounted for 28 % variance. In step 2, addition of schizotypal PD explained an additional 4 % variance. Schizoid was excluded from the model. From cluster B, anti-social accounted for 40% variance. With addition of borderline in step 2, an additional 6 % variance was explained. With addition of narcissistic PD in step 3, an additional 1 % variance is explained. Histrionic PD was excluded from the model. From Cluster C, only dependent PD accounted for 6 % variance. Obsessive compulsive and avoidant PDs were excluded from the model. From NOS, passive aggressive disorder accounted for 27 % variance. With addition of NOS dependent PD an additional 2 % variance was explained. From overall clusters, cluster B accounted for 34% variance in step 1. In step 2, addition of cluster C explained an additional 6 % variance. In step 3, addition of, NOS depressive explained 3 % additional variance. In step 4, addition of cluster A explained 1 % more variance. In all cluster B, cluster C, NOS depressive, and cluster A explained 50 % variance.

Table 46

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Aggressive Behavior Problems among Clinical Sample (N = 408)

		Scales	Aggressive Behavior				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Paranoid	.53**	.28		157.46**	[.27, .37]
	Step 2	Paranoid	.38**				[.17, .29]
		Schizotypal	.25**	.32	.04	95.04**	[.10, .22]
Cluster B	Step 1	Antisocial	.63**	.40		265.16**	[.37, .47]
	Step 2	Antisocial	.38**				[.19, .33]
		Borderline	.35**	.46	.06	168.80**	[.15, .27]
	Step 3	Antisocial	.45**				[.23, .38]
		Borderline	.37**				[.16, .29]
		Narcissistic	.14*	.47	.01	117.88**	[.03, .15]
Cluster C	Step 1	Dependent	.25**	.06		27.42**	[.11, .24]
NOS	Step 1	Passive Aggressive	.52**	.27		147.13**	[.33, .46]
	Step 2	Passive Aggressive	.39**				[.22, .38]
		Dependent	.19*	.29	.02	81.38**	[.06, .24]
Total Clusters	Step 1	Cluster B	.58**	.34		207.28**	[.10, .13]
	Step 2	Cluster B	.83**				[.14, .19]
		Cluster C	.35**	.40	.06	133.02**	[.06, .13]
	Step 3	Cluster B	.77**				[.13, .17]
		Cluster C	.47**				[.10, .15]
		NOS. depressive	.34**	.49	.09	126.66**	[.21, .33]
	Step 4	Cluster B	.65**				[.11, .15]
		Cluster C	.50**				[.10, .16]
		NOS. depressive	.28**				[.15, .29]
		Cluster A	.22**	0.5	0.02	101.61**	[.03, .09]

* $p < .05$. ** $p < .001$.

In order to assess role of PDs in prediction of aggressive behavior (narrow band scale) stepwise regression analysis was carried out.

Table 47 indicated that from cluster A, paranoid PD accounted for 12 % variance. In step 2, addition of schizotypal PD explained an additional 2 % variance. Schizoid PD was excluded from the model. From cluster B, borderline PD accounted for 21% variance. With addition of anti-social PD in step 2, an additional 1 % variance was explained. Narcissistic and histrionic PD was excluded from the model. From Cluster C, only dependent PD accounted for 14 % variance. Obsessive compulsive and avoidant PDs were excluded from the model. From NOS, depressive disorder accounted for 17 % variance. With addition of NOS passive aggressive PD an additional 2 % variance was explained.

From overall clusters, cluster B accounted for 19% variance in step 1. In step 2, addition of NOS depressive explained an additional 2 % variance. Both collectively accounted for 21 % variance.

Table 47

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Aggressive Behavior Problems among Non-Clinical Sample (N = 487)

Clusters		Scales	Aggressive Behavior				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Paranoid	.35**	.12		66.17**	[.16,.26]
	Step 2	Paranoid	.21**				[.06,.20]
		Schizotypal	.20**	.14	.02	40.40**	[.05,.17]
Cluster B	Step 1	Borderline	.46**	.21		132.83**	[.18,.26]
	Step 2	Borderline	.40**				[.14,.24]
		Antisocial	.11*	.22	.01	68.95**	[.00,.16]
Cluster C	Step 1	Dependent	.37**	.14		75.59**	[.15,.24]
NOS	Step 1	Depressive	.41**	.17		97.76**	[.19,.28]
	Step 2	Depressive	.27**				[.08,.22]
		Passive Aggressive	.19**	.19	.02	54.77**	[.05,.21]
Total Clusters	Step 1	Cluster B	.43**	.19		111.74**	[.06,.09]
	Step 2	Cluster B	.29**				[.03,.07]
		NOS. Depressive	.21**	.21	.02	63.70**	[.05,.18]

* $p < .05$. ** $p < .001$.

In order to assess role of PDs in prediction of rule breaking behavior (narrow band scale) stepwise regression analysis was carried out.

Table 48

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Rule Breaking Problems among Clinical Sample (N = 408)

Clusters		Scales	Rule Breaking Behavior				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Schizoid	.48**	.23		122.58**	[.32, .45]
	Step 2	Schizoid	.37**	.28	.05	80.47**	[.22, .37]
		Paranoid	.26**				
	Step 3	Schizoid	.28**	.29	.01	56.03**	[.13, .32]
		Paranoid	.20**				
		Schizotypal	.16*				
Cluster B	Step 1	Antisocial	.72**	.52		442.94**	[.44, .54]
	Step 2	Antisocial	.64**	.53	.01	232.12**	[.37, .49]
		Histrionic	.14*				
	Step 3	Antisocial	.57**	.54	.01	158.29**	[.31, .45]
		Histrionic	.12*				
		Borderline	.12*				
Cluster C	Step 1	Obsessive Compulsive	.39**	.15		71.93**	[.20, .31]
	Step 2	Obsessive Compulsive	.25**	.18	.03	43.98**	[.08, .23]
		Dependent	.22**				
NOS	Step 1	NOS Passive Aggressive	.53**	.28		159.83**	[.35, .47]
Total Clusters	Step 1	Cluster B	.69**	.48		371.05**	[.12, .15]
	Step 2	Custer B	.81**	.49	.01	195.07**	[.14, .18]
		Cluster C	.16*				
	Step 3	Custer B	.73**	.50	.01	134.68**	[.12, .17]
		Cluster C	.20**				
		NOS Passive aggressive	.14*				

* $p < .05$. ** $p < .001$.

Table 48 indicates that from cluster A, schizoid PD accounted for 23 % variance. In step 2, addition of paranoid PD explained an additional 5 % variance. In step 3 addition of schizoid PD explained additional 1 % variance. In all the model accounted for 29 % variance. From cluster B, anti-social PD accounted for 52% variance. With addition of histrionic PD in step 2, an additional 1 % variance was explained. With addition of borderline PD in step 3, an additional 1 % variance was explained. Narcissistic PD was excluded from the model. From Cluster C, obsessive compulsive PD accounted for 15 %

variance. With addition of dependent PD in step 2, an additional 3 % variance was explained. Avoidant PD was excluded from the model. From NOS, only passive aggressive disorder accounted for 28% variance. NOS dependent PD was excluded from the model.

From total clusters, cluster B accounted for 48% variance in step 1. In step 2, addition of cluster C explained an additional 1 % variance. In step 3, addition of, NOS passive aggressive accounted for additional 1 % variance. Collectively, Cluster B, C, and NOS passive aggressive accounted for 50 % variance in rule breaking behavior.

In order to assess role of PDs in prediction of rule breaking behavior (narrow band scale) stepwise regression analysis was carried out.

Table 49

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Rule Breaking Problems among Non-Clinical Sample (N = 487)

Clusters		Scales	Rule Breaking Behavior				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Schizotypal	.31**	.09		49.91**	[.09,.16]
Cluster B	Step 1	Antisocial	.37**	.14		76.21**	[.16,.25]
	Step 2	Antisocial	.27**				[.09,.21]
		Borderline	.15*	.15	.01	42.51**	[.02,.09]
Cluster C	Step 1	Dependent	.34**	.12		63.33**	[.10,.17]
NOS	Step 1	Passive Aggressive	.31**	.10		51.78**	[.11,.19]]
	Step 2	Passive Aggressive	.19*				[.03,.16]
		Depressive	.16*	.11	.01	29.26**	[.01,.12]
Total Clusters	Step 1	Cluster B	.36**	.13		70.31**	[.03,.05]

* $p < .05$. ** $p < .001$.

Table 49 indicated that from cluster A, schizotypal PD accounted for 9 % variance. Paranoid and schizoid PDs were excluded from the model. From cluster B, anti-social PD accounted for 14% variance. With addition of borderline PD in step 2, an additional 1 % variance was explained. Narcissistic and histrionic PD was excluded from the model. From Cluster C, dependent PD accounted for 12 % variance. Obsessive compulsive and avoidant PDs were excluded from the model. From NOS, passive aggressive disorder accounted for 10% variance. NOS dependent personality disorder in step 2 accounted for additional 1 %

variance. From total clusters, only cluster B accounted for 13 % variance in prediction of rule breaking behavior.

In order to assess role of PDs in prediction of intrusive behavior (narrow band scale) stepwise regression analysis was carried out.

Table 50

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Intrusive Behavioral Problems among Clinical Sample (N = 408)

Clusters		Scales	Intrusive Behavioral Problems				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Schizotypal	.48**	.23		124.07**	[.12, .17]
	Step 2	Schizotypal	.38**				[.08, .15]
		Schizoid	.14*	.24	.01	65.43**	[.01, .10]
Cluster B	Step 1	Antisocial	.63**	.39		259.99**	[.17, .22]
	Step 2	Antisocial	.46**				[.11, .17]
		Histrionic	.27**	.44	.05	156.24**	[.07, .13]
Cluster C	Step 1	Obsessive Compulsive	.40**	.16		76.75**	[.09, .15]
	Step 2	Obsessive Compulsive	.26**				[.04, .11]
		Dependent	.22**	.19	.03	46.66**	[.03, .11]
NOS	Step 1	NOS Passive Aggressive	.44**	.19		96.77**	[.13, .19]
Total Clusters	Step 1	Cluster B	.65**	.42		299.13**	[.05, .07]

* $p < .05$. ** $p < .001$.

Table 50 indicates that from cluster A, schizotypal PD accounted for 23 % variance. In step 2, addition of schizoid PD explained additional 1 % variance. Paranoid PD was excluded from the model. From cluster B, anti-social PD accounted for 39% variance. With addition of histrionic PD in step 2, an additional 5 % variance was explained. Narcissistic and borderline PDs were excluded from the model. From Cluster C, obsessive compulsive PD accounted for 16 % variance. In step 2, addition of dependent PD explained additional 3 % variance. Avoidant PD was excluded from the model. From NOS, only passive aggressive disorder accounted for 19% variance. NOS dependent personality disorder was excluded from the model. From overall clusters, only cluster B accounted for 42 % variance in prediction of intrusive problems.

In order to assess role of PDs in prediction of intrusive behavior (narrow band scale) stepwise regression analysis was carried out.

Table 51

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Intrusive Behavioral Problems among Non-Clinical Sample (N = 487)

Clusters		Scales	Intrusive Behavioral Problem				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Paranoid	.20**	.04		19.67**	[.03,.08]
Cluster B	Step 1	Antisocial	.27**	.07		37.89**	[.06,.12]
	Step 2	Antisocial	.19*		.01	22.18**	[.03,.10]
		Histrionic	.14*	.08			
Cluster C	Step 1	Dependent	.21**	.05		22.84**	[.03,.07]
NOS	Step 1	Passive Aggressive	.19**	.04		17.82**	[.03,.08]
Total Clusters	Step 1	Cluster B	.29***	.08		43.42**	[.02,.03]
	Step 2	Cluster B	.40**		.01	25.30**	[.02,.04]
		NOS. Depressive	.16**	.09			

* $p < .05$. ** $p < .001$.

Table 51 indicates that from cluster A, paranoid PD accounted for 4 % variance. Schizotypal and schizoid PDs were excluded from the model. From cluster B, anti-social PD accounted for 7% variance. With addition of histrionic PD in step 2, an additional 8 % variance was explained. Narcissistic and borderline PDs were excluded from the model. From Cluster C, dependent PD accounted for 4% variance. Both obsessive compulsive and avoidant PDs were excluded from the model. From NOS, only passive aggressive disorder accounted for 4 % variance. NOS dependent PD was excluded from the model. From overall clusters, only cluster B accounted for 8 % variance in prediction of intrusive problems. In step 2, addition of NOS dependent PD explained 1 % additional variance.

In order to assess role of PDs in prediction of internalizing behavior i.e., broad band scale stepwise regression analysis was carried out.

Table 52
Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Internalizing Behavioral Problems among Clinical Sample (N = 408)

Clusters		Scales	Internalizing Behavioral Problems				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Paranoid	.37**	.14		66.01**	[.36, .59]
	Step 2	Paranoid	.24**				[.16, .44]
		Schizotypal	.23**	.17	.03	42.47**	[.16, .46]
Cluster B	Step 1	Borderline	.43**	.19		94.47**	[.44, .66]
	Step 2	Borderline	.54**				[.56, .81]
		Narcissistic	.21**	.22	.03	57.26**	[.15, .43]
Cluster C	Step 1	Dependent	.27**	.07		31.95**	[.26, .54]
NOS	Step 1	NOS. depressive	.57**	.31		182.08**	[.79, 1.05]
Total Clusters	Step 1	NOS. depressive	.56**	.31		182.07**	[.79, 1.05]
	Step 2	NOS. depressive	.47**				[.62, .94]
		Cluster A	.14*	.32	.01	97.01**	[.03, .14]
	Step 3	NOS. depressive	.51**				[.67, .99]
		Cluster A	.25**	.35	.03	70.92**	[.07, .19]
		Cluster C	.19**			[.05, .17]	

* $p < .05$. ** $p < .001$.

Table 52 indicates that from cluster A, paranoid PD accounted for 14 % variance. In step 2, addition of schizotypal PD explained an additional 3 % variance. Schizoid PD was excluded from the model. From cluster B, only borderline PD accounted for 19 % variance. Narcissistic PD in step 2 explained an additional 3 % variance. Anti-social, and histrionic PDs were excluded from the model. From Cluster C, only dependent PD accounted for 7 % variance. Obsessive compulsive and avoidant PDs were excluded from the model. From NOS, depressive PD accounted for 31% variance. From overall clusters, NOS depressive accounted for 31 % variance in step 1. In step 2, addition of cluster C explained an additional 1 % variance. In step 3 addition of cluster C explained additional 3 % variance. In all NOS depressive, cluster A, and cluster C collectively accounted for 35 % variance.

In order to assess role personality disorders in prediction of internalizing behavior i.e., broad band scale stepwise regression analysis was carried out.

Table 53

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Internalizing Behavioral Problems among Non-Clinical Sample (N = 487)

Clusters	Scales	Internalizing Behavioral Problems					
		β	R^2	ΔR^2	F	95 % CI	
Cluster A	Step 1	Paranoid	.46**	.21		131.01**	[.61,.86]
	Step 2	Paranoid	.30**	.25	.04	22.89**	[.31,.63]
		Schizotypal	.25**				[.21,.51]
Cluster B	Step 1	Borderline	.49**	.24		149.16**	[.50,.69]
Cluster C	Step 1	Dependent	.49*	.24		152.82**	[.58,.79]
	Step 2	Dependent	.37**	.25	.01	81.46**	[.36,.68]
		Avoidant	.16*				[.08,.43]
NOS	Step 1	Depressive	.54**	.29		201.25**	[.69,.91]
	Step 2	Depressive	.40**	.31	.02	107.92**	[.43,.76]
		Passive Aggressive	.19*				[.13,.51]
Total Clusters	Step 1	NOS. Depressive	.54**	.29		201.25**	[.69,.91]
	Step 2	NOS. Depressive	.39**	.31	.02	111.91**	[.41,.73]
		Cluster A	.22**				[.07,.20]

* $p < .05$. ** $p < .001$.

Table 53 indicated that from cluster A, paranoid PD accounted for 21 % variance. In step 2, addition of schizotypal PD explained an additional 4 % variance. Schizoid PD was excluded from the model from cluster B, only borderline PD accounted for 24 % variance. Narcissistic, anti-social, and histrionic PDs were excluded from the model. From Cluster C, dependent PD accounted for 24% variance in step 1. For step 2, with addition of avoidant PD additional 1 % variance was explained. Obsessive compulsive PD was excluded from the model. From NOS, depressive PD accounted for 29% variance. With addition of NOS passive aggressive PD an additional 2 % variance was explained. From overall clusters, NOS depressive accounted for 29 % variance in step 1. In step 2, addition of cluster A explained an additional 2 % variance. In all NOS depressive and cluster A collectively accounted for 31 % variance.

In order to assess role of PDs in prediction of externalizing behavior i.e., broad band scale stepwise regression analysis was carried out.

Table 54

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Externalizing Behavioral Problems among Clinical Sample (N = 408)

Clusters		Scales	Externalizing Behavioral Problems					
			β	R^2	ΔR^2	F	95 % CI	
Cluster A	Step 1	Schizotypal	.44**	.19		96.44**	[.50, .75]	
	Step 2	Schizotypal	.34**	.21	.02	53.43**	[.33, .64]	
		Paranoid	.16*					[.07, .37]
	Step 3	Schizotypal	.21*	.23	.02	39.01**	[.11, .50]	
		Paranoid	.16*					[.07, .36]
		Schizoid	.18*					[.10, .54]
Cluster B	Step 1	Antisocial	.60**	.36		225.62**	[.78, 1.02]	
	Step 2	Antisocial	.47**	.37	.01	121.01**	[.54, .87]	
		Borderline	.19*					[.10, .40]
Cluster C	Step 1	Obsessive Compulsive	.35**	.12		54.85**	[.37, .64]	
	Step 2	Obsessive Compulsive	.22**	.14	.02	33.03**	[.15, .50]	
		Dependent	.19*					[.11, .49]
NOS	Step 1	NOS Passive Aggressive	.48**	.23		119.62**	[.67, .97]	
Total Clusters	Step 1	Cluster B	.58**	.33		202.28**	[.22, .29]	
	Step 2	Cluster B	.48**	.34	.01	105.67**	[.16, .26]	
		NOS Passive Aggressive	.14*					[.05, .44]
	Step 3	Cluster B	.56**	.35	.01	73.73**	[.19, .30]	
		NOS Passive Aggressive	.18*					[.11, .51]
		Cluster C	.15*					[.02, .16]

* $p < .05$. ** $p < .001$.

Table 54 indicated that from cluster A, schizotypal PD accounted for 19 % variance. In step 2, addition of schizotypal PD explained an additional 2 % variance. In step 3, addition of schizoid PD explained 2 % additional variance. In all schizotypal, paranoid, and schizoid PD accounted for 23 % variance. From cluster B, antisocial PD accounted for 36 % variance. In step 2, addition of borderline PD explained additional 1 % variance. Narcissistic and histrionic PD were excluded from the model. From Cluster C, obsessive compulsive PD accounted for 12 % variance. With addition of dependent PD2 % additional

variance was explained in step 2. Avoidant PD was excluded from the model. From NOS, passive aggressive PD accounted for 23 % variance. From overall clusters, cluster B accounted for 33 % variance in step 1. In step 2, addition of NOS passive aggressive PD explained an additional 1 % variance. In step 3 addition of cluster C explained additional 1 % variance. In all cluster B, NOS passive aggressive, and cluster C and explained 35 % variance.

In order to assess role of PDs in prediction of externalizing behavior i.e., broad band scale stepwise regression analysis was carried out.

Table 55

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Externalizing Behavioral Problems among Non-Clinical Sample (N = 487)

Clusters		Scales	Externalizing Behavioral Problems				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Paranoid	.17**	.03	-	13.94**	[.17,.54]
Cluster B	Step 1	Antisocial	.17**	.03	-	14.60**	[.22,.67]
Cluster C	Step 1	Dependent	.14*	.02	-	9.47*	[.09,.43]
NOS	Step 1	Depressive	.19**	.04	-	18.43**	[.21,.55]
Total Clusters	Step 1	NOS. Depressive	.19**	.04	-	18.43**	[.21,.55]

* $p < .05$. ** $p < .001$.

Table 55 indicated that from cluster A, paranoid PD accounted for 3 % variance. Both schizoid and schizotypal PDs were excluded from the model. From cluster B, only antisocial PD accounted for 3 % variance. Borderline, Narcissistic, and histrionic PDs were excluded from the model. From Cluster C, only dependent PD accounted for 2 % variance. Avoidant and obsessive-compulsive PDs were excluded from the model. From NOS, depressive PD accounted for 4 % variance. From overall clusters only NOS, depressive PD accounted for 4 % variance in prediction of externalizing behavioral problems.

In order to assess role of PDs in prediction of problem behavior, stepwise regression analysis was carried out.

Table 56

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Total Problem Behavior among Clinical Sample (N = 408)

Clusters		Scales	Total Problem Behavior				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Schizotypal	.54**	.29		164.71**	[1.69, 2.31]
	Step 2	Schizotypal	.34**	.36	.07	111.21**	[.91, 1.64]
		Paranoid	.32**				
	Step 3	Schizotypal	.23**	.37	.01	78.43**	[.38, 1.31]
		Paranoid	.32**				
		Schizoid	.17**				
Cluster B	Step 1	Borderline	.63**	.40		269.99**	[1.95, 2.48]
	Step 2	Borderline	.44**	.43	.03	154.99**	[.62, 1.45]
		Antisocial	.26**				
	Step 3	Borderline	.46**	.44	.01	106.24**	[1.26, 1.99]
		Antisocial	.32**				
		Narcissistic	.11*				
Cluster C	Step 1	Dependent	.38**	.14		66.74**	[1.17, 1.92]
NOS	Step 1	NOS Passive Aggressive	.57**	.32		193.38**	[2.19, 2.91]
	Step 2	NOS Passive Aggressive	.36**	.38	.06	124.67**	[1.14, 2.06]
		NOS. depressive	.32**				
Total Clusters	Step 1	Cluster A	.60**	.37		233.68**	[.81, 1.04]
	Step 2	Cluster A	.43**	.43	.06	151.88**	[.51, .79]
		NOS depressive	.31**				
	Step 3	Cluster A	.21**	.47	.04	117.28**	[.21, .46]
		NOS depressive	.31**				
		Cluster B	.29**				
	Step 4	Cluster A	.26**	.51	.04	104.17**	[1.27, 2.06]
		NOS depressive	.36**				
		Cluster B	.45**				
		Cluster C	.31**				

* $p < .05$. ** $p < .001$.

Table 56 indicated that from cluster A, schizotypal PD emerged as the strongest predictor of problem behavior and accounted for 29 % variance. In step 2, in addition to schizotypal PD, paranoid PD accounted for an additional 7 % variance. In step 3 addition of schizoid PD led to 1 % increase in explained variance. The cumulative variance explained by schizotypal, paranoid, and schizoid PD in prediction of total problem behavior for clinical sample was 37 %.

From Cluster B, borderline PD appeared as the strongest predictor of problem behavior and accounted for 40 % variance. In step 2, anti-social PD explained an additional

3 % variance. In step 3, in addition of narcissistic PD accounted for an additional 1 % variance. Histrionic PD was excluded from overall model. Thus borderline, anti-social, and narcissistic PDs collectively account for 44 % variance in prediction of problem behavior for clinical sample. From Cluster C only dependent PD predicted problem behavior as it accounted for 14 % variance. Both obsessive compulsive and dependent PDs did not predict problem behavior for clinical sample. From NOS PDs, Only NOS passive aggressive accounted for 32 % variance. NOS depressive in step 2 explained another 6 % variance for clinical sample.

From all PDs, cluster A accounted for 37 % variance. In step 2, addition of NOS depressive PD led to 6 % increase in explained variance. In Step 3, addition of Cluster B, resulted in another 4 % increase in explained variance. In step 4 addition of cluster C led to another 4 % increase in explained variance. In total, cluster A, NOS depressive, Cluster B, and Cluster C collectively accounted for 51 % explained variance in total problem behavior for clinical sample.

In order to assess role of PDs in prediction of problem behavior, stepwise regression analysis was carried out.

Table 57

Stepwise Regression Analysis for Predictive Role of APIV Scales (Cluster A, Cluster B, Cluster C, NOS Depressive, Passive Aggressive, & Total Clusters) for Total Problem Behavior among Non-Clinical Sample (N = 487)

Clusters		Scales	Total Problem Score				
			β	R^2	ΔR^2	F	95 % CI
Cluster A	Step 1	Schizotypal	.43**	.19		111.44**	[1.29,1.88]
	Step 2	Schizotypal	.28**				[.65,1.42]
		Paranoid	.23**	.22	.03	66.82**	[.50,1.35]
Cluster B	Step 1	Borderline	.49**	.24		152.99**	[1.23,1.76]
	Step. 2	Borderline	.41**				[.95,1.57]
		Antisocial	.13*	.25	.01	80.94**	[.17,1.16]
Cluster C	Step 1	Dependent	.48**	.23		145.53**	[1.43,1.98]
NOS	Step 1	Depressive	.48**	.23		148.20**	[1.53,2.11]
	Step 2	Depressive	.32**				[.78,1.65]
		Passive Aggressive	.22**	.25	.02	82.65**	[.44,1.46]
Total Clusters	Step 1	NOS. Depressive	.48**	.23		148.20**	[1.52,2.11]
	Step 2	NOS. Depressive	.30**				[.73,1.54]
		Cluster B	.26**	.26	.03	87.96**	[.16,.41]

* $p < .05$. ** $p < .001$.

Table 57 indicated that from cluster A, schizotypal PD emerged as the strongest predictor of problem behavior and accounted for 19 % variance. In step 2, in addition to schizotypal, paranoid PD accounted for an additional 3 % variance. Schizoid PD disorder was excluded from the model. The cumulative variance explained by schizotypal and paranoid PDs in prediction of total problem behavior problems for non-clinical sample was 22 %. From Cluster B, borderline PD appeared as the strongest predictor of problem behavior and accounted for 24 % variance. In step 2, anti-social PD explained an additional 1 % variance. Narcissistic and histrionic PDs were excluded from overall model. Borderline and anti-social PDs collectively accounted for 25 % variance in the prediction of problem behavior for non-clinical sample.

From Cluster C only dependent PD predicted problem behavior as it accounted for 23 % variance. Both obsessive compulsive and dependent PD did not predict problem behavior for non-clinical sample. From NOS PDs, Only NOS depressive accounted for 23 % variance. NOS passive aggressive in step 2 explained another 2 % variance for non-clinical sample. From all PDs, NOS depressive accounted for 23 % variance. In Step 2, addition of Cluster B, resulted in another 3 % increase in explained variance. In all NOS depressive and Cluster B collectively accounted for 26 % explained variance in total problem behavior for non-clinical sample.

A priori sample estimation was carried out using Gpower (Version 3.1.9.6, *F* test for change in R^2) with medium effect size, error probability ($\alpha = .05$), and sample power (.95), the adequate sample size was 107. Therefore, both clinical ($N = 408$) and non-clinical samples ($N = 487$) of the present study were enough to examine interaction effect.

Table 58 showed the moderating role of adaptive functioning in between clusters (A, B, C, & total clusters) and ASR syndromes (internalizing, externalizing, attention, thought, & total problem) for clinical sample. Adaptive functioning negatively predicted all syndromes except for non-significant association with externalizing and thought problem in Model 2 and Model 3 respectively. However, the interaction effect was significant for internalizing, externalizing, attention, and total problem but was non-significant for thought problems in case of Cluster A. For Cluster B, adaptive functioning negatively predicted internalizing, externalizing, thought, and total problem but non-

significant interaction effect was apparent for attention problem in Model 4. Significant interaction effect of Cluster C and adaptive functioning was observed for internalizing, attention, and total problem in Model 1, 4, and 5 respectively but non-significant for externalizing and thought problem (Model 1 and 3 respectively). In case of relationship between total problems (ASR) and PDs, non-significant interaction effect was apparent.

Table 59 showed the moderating role of adaptive functioning in between clusters (A, B, C, & total clusters) and ASR syndromes (internalizing, externalizing, attention, thought, & total problem) for non-clinical sample. Adaptive functioning negatively predicted all syndromes except non-significant association with thought problem in Model 3. However, the interaction effect was only significant for internalizing and attention problem in Model 1 and Model 4 respectively. Although Cluster B and adaptive functioning negatively predicted internalizing, externalizing, attention, thought, and total problem but the interaction effect was non-significant for all models. However, significant negative interaction effect of Cluster C and adaptive functioning was observed for internalizing in Model 1 but non-significant for all other models. Similar findings were found for total clusters and adaptive functioning interaction effect, where moderation was significant only in Model 1.

Table 58

Moderating Role of Adaptive Functioning for the Relationship between Cluster A, B, C, and Total Cluster with Internalizing, Externalizing, Thought, Attention, and Total Problem Behavior across Clinical Sample (N = 408)

Predictors	Model 1			Model 2			Model 3			Model 4			Model 5		
	Internalizing			Externalizing			Thought Problem			Attention Problem			Total Problem Behavior		
	B	SE	95%CI	B	SE	95%CI	B	SE	95%CI	B	SE	95%CI	B	SE	95%CI
Cluster A	.19**	.02	[.14, .24]	.33**	.02	[.29, .38]	.07**	.01	[.06, .08]	.11**	.01	[.09, .13]	.84**	.07	[.71, .97]
Adp. Fun	-.42**	.07	[-.58, -.25]	-.13	.07	[-.27, .01]	-.03	.02	[-.07, .001]	-.17**	.02	[-.22, -.11]	-.74**	.16	[-1.06, -.42]
Cluster A*Adp.Fun	.01*	.002	[.001, .01]	.004*	.001	[.00, .01]	.00	.001	[-.001, .001]	.004**	.001	[.002, .01]	.02*	.01	[.004, .03]
R ²	.26			.38			.24			.35			.42		
F	40.05**			101.02**			49.26**			62.67**			95.84**		
Cluster B	.11**	.02	[.07, .15]	.30**	.01	[.28, .33]	.04**	.01	[.03, .05]	.07**	.01	[.06, .09]	.62**	.04	[.53, .70]
Adp. Fun	-.52**	.08	[-.61, .36]	-.21**	.05	[-.31, -.11]	-.06**	.02	[-.09, -.03]	-.22**	.03	[-.28, -.16]	-1.28**	.16	[-1.39, -.77]
Cluster B*Adap.Fun	.01	.002	[-.002, .01]	.001	.001	[-.001, .004]	.001	.001	[-.00, .001]	.002*	.00	[.001, .004]	.01	.004	[-.001, .02]
R ²	.21			.55			.16			.31			.43		
F	32.68**			195.60**			26.44**			56.95**			87.5**		
Cluster C	.11**	.03	[.06, .17]	.22**	.02	[.17, .28]	.03**	.01	[.02, .05]	.07**	.01	[.04, .09]	.53**	.07	[.40, .67]
Adp. Fun	-.56**	.07	[-.71, -.41]	-.39**	.07	[-.54, -.25]	-.07**	.02	[-.11, -.04]	-.25**	.03	[-.31, -.19]	-1.31**	.17	[-1.64, -.97]
Cluster C*Adap.Fun	.01*	.003	[.003, .01]	.01	.002	[-.00, .01]	.001	.001	[-.001, .002]	.004**	.001	[.001, .01]	.02*	.01	[.01, .03]
R ²	.19			.22			.10			.25			.27		
F	27.23**			41.38**			15.31**			35.41**			44.13**		
N.DP	.78**	.09	[.61, .95]	.60**	.09	[.43, .77]	.13**	.02	[.09, .17]	.35**	.04	[.27, .42]	2.18**	.23	[1.72, 2.64]
Adp. Fun	-.36**	.07	[-.50, -.22]	-.27**	.08	[-.41, -.11]	-.07**	.02	[-.09, -.17]	-.20**	.03	[-.26, -.13]	-1.05**	.19	[-1.42, -.67]
N.DP* Adp. Fun	.03*	.01	[.01, .04]	.01	.01	[-.01, .02]	-.00	.002	[-.004, .00]	.01**	.004	[.01, .02]	.05*	.02	[.01, .10]
R ²	.39			.43			.14			.39			.38		
F	74.80**			32.18**			24.29**			81.27**			78.73**		
N.PA	.54**	.08	[.39, .69]	.91**	.07	[.78, 1.04]	.16**	.02	[.12, .19]	.01*	.004	[.002, .01]	2.25**	.19	[1.87, 2.62]
Adp. Fun	-.48	.08	[-.64, -.31]	-.24**	.07	[-.38, -.10]	-.07	.02	[-.11, -.03]	-.24**	.04	[.31, .17]	-1.21**	1.73	[-1.59, -.82]
N.PA* Adp. Fun	.02*	.01	[.0001, .03]	.004	.01	[-.01, .02]	-.002	.002	[-.01, .002]	.01*	.004	[.002, .01]	.04	.02	[-.01, .08]
R ²	.27			.35			.42			.32			.4		
F	47.45**			96.08**			33.42**			64.21**			98.42**		
Total Cluster	.05**	.001	[.04, .07]	.12**	.01	[.11, .14]	.02**	.002	[.01, .02]	.03**	.004	[.03, .04]	.27**	.02	[.23, .31]
Adp. Fun	-.42*	.07	[-.55, -.29]	-.19**	.05	[-.29, -.09]	-.06**	.02	[-.09, -.02]	.21**	.03	[-.27, -.15]	-1.02**	.16	[-1.32, -.71]
T. Cluster*Adap.fun	.002	.001	[-.00, .005]	.001	.001	[-.001, .001]	.01	.00	[-.00, .01]	.001*	.00	[.00, .002]	.004	.002	[-.00, .01]
R ²	.23			.45			.18			.32			.41		
F	34.52**			137.06**			33.04**			56.53**			93.82**		

* $p < .05$. ** $p < .001$.

Based on Table 58, moderation graphs were plotted for significant interaction effects. Mod-graphs for the moderating role of mean adaptive functioning between all cluster of PDs and internalizing, externalizing, attention, thought problems, and total problem behavior in clinical sample are explained below:

For interpretation of interaction term slope analysis was carried out to determine which slopes are significantly different from zero. This was carried out with an assumption to examine under which condition moderator was significant. A common trend apparent in all significant moderations indicated that the slopes relating to PDs and problem behaviors were positive for all graphs.

To summarize the slopes of all graphs, slope for high mean adaptive functioning was steeper in comparison to low and medium levels of adaptive functioning in all significant effects. Moderation graphs of Model 1 for Table 58 are represented in Fig 11, 12, 13, and 14. Moderation graph (Fig 11) illustrated that the relationship between cluster A and internalizing behavioral problem was strongest at lowest level of mean adaptive functioning as compared to medium and high mean adaptive across clinical sample. This moderation further established that mean adaptive functioning buffers the relationship between cluster A of PDs and internalizing behavioral problems of ASR.

Moreover, similar pattern was also apparent for the moderating role of mean adaptive functioning in relationship between PDs (Cluster C, NOS-depressive, NOS-passive aggressive) and internalizing behavioral problems across clinical sample in Fig 12, 13, and 14 respectively. The weakest relationship was also apparent at the highest level of mean adaptive functioning in subsequent graphs.

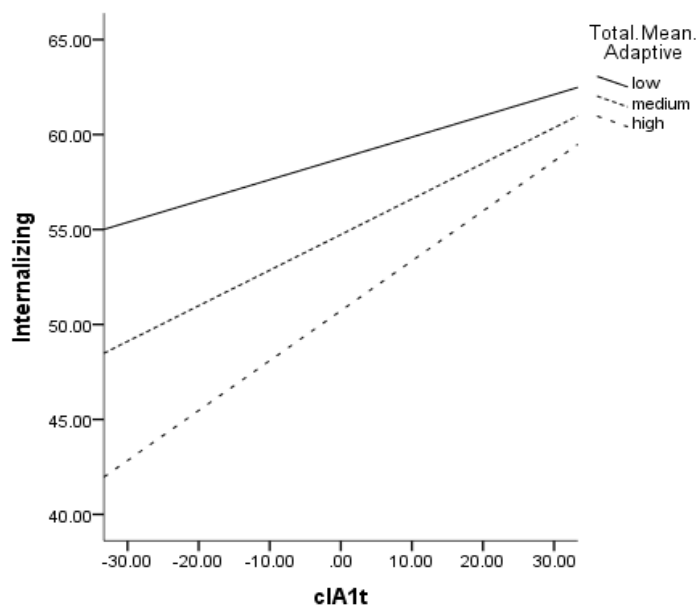


Figure 11. Interaction effect of mean adaptive functioning between Cluster A PD and syndrome scale internalizing behavioral problem among clinical sample

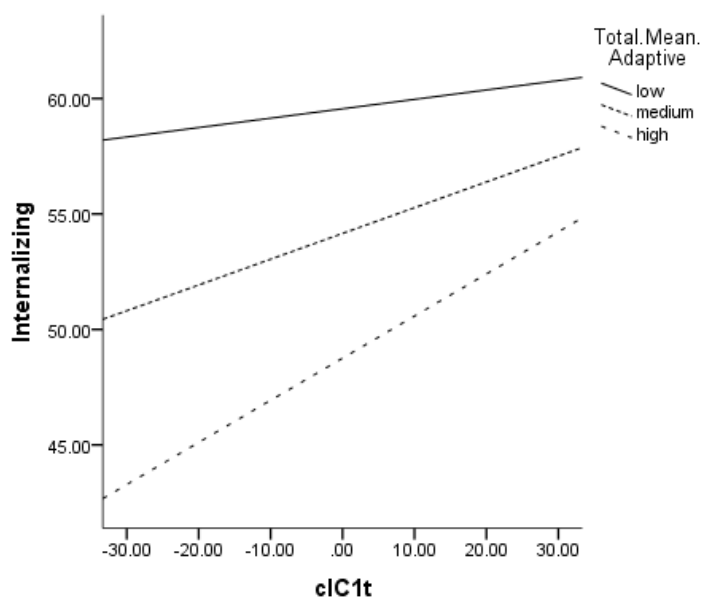


Figure 12. Interaction effect of mean adaptive functioning between Cluster C PD and syndrome scale internalizing behavioral problem among clinical sample

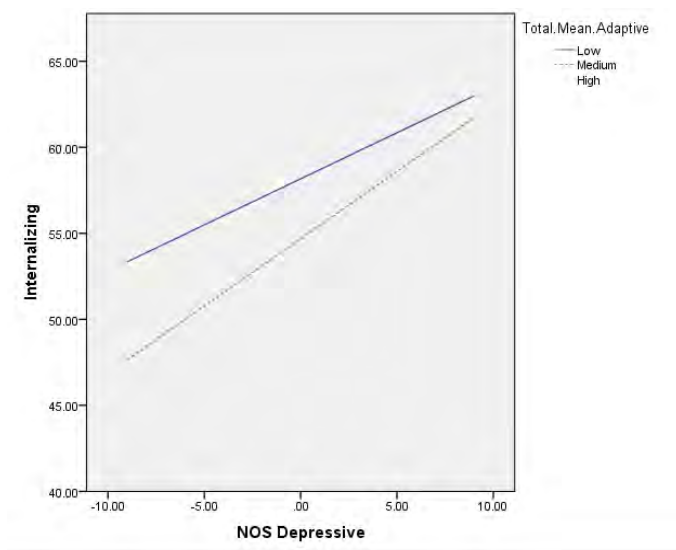


Figure 13. Interaction effect of mean adaptive functioning between NOS-depressive PD and syndrome scale internalizing behavioral problem among clinical sample

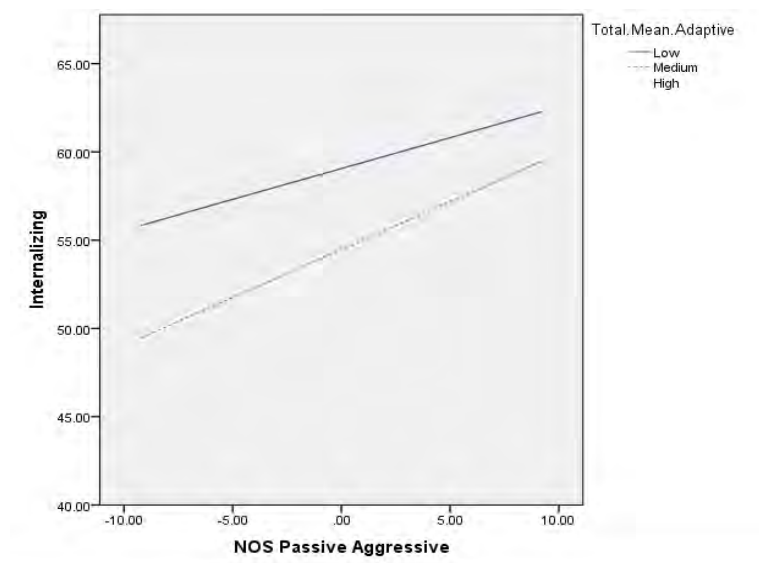


Figure 14. Interaction effect of mean adaptive functioning between NOS-passive aggressive PD and syndrome scale internalizing behavioral problem among clinical sample

Figure 15 represented the moderation graph of Model 2 for Table 58. Similar to internalizing behavioral problems, moderating role of mean adaptive functioning between cluster A PDs and externalizing behavioral problem highlighted the buffering impact of

mean adaptive functioning. However, as apparent from the slope of the graph (Fig 15) the difference between low, medium, and high mean adaptive was minimum.

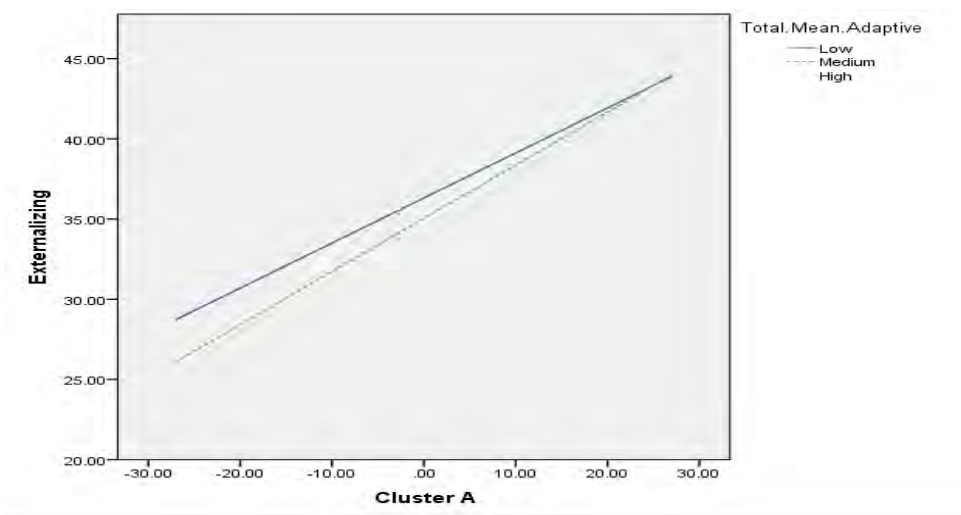


Figure 15. Interaction effect of total mean adaptive between Cluster A PD and syndrome scale externalizing problems among clinical sample

Moderation graphs further illustrated that the mean adaptive functioning moderated the relationship between PDs (Cluster A, B, C, total cluster, NOS-depressive, and NOS-passive aggressive) and attention problem in Fig 16, 17, 18, 19, 20, and 21 respectively. These figures represented the moderation of Model 3 from Table 58. These results were also in similar direction (as of syndrome scale of internalizing and externalizing behavioral problem). In other words, the relationship between PDs and attention problem was strongest at the lowest mean adaptive functioning.

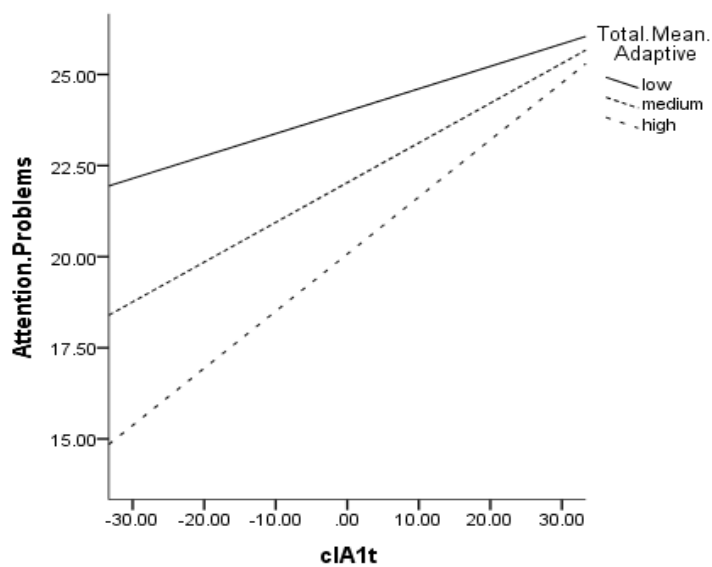


Figure 16. Interaction effect of total mean adaptive between Cluster A PD and attention problem among clinical sample

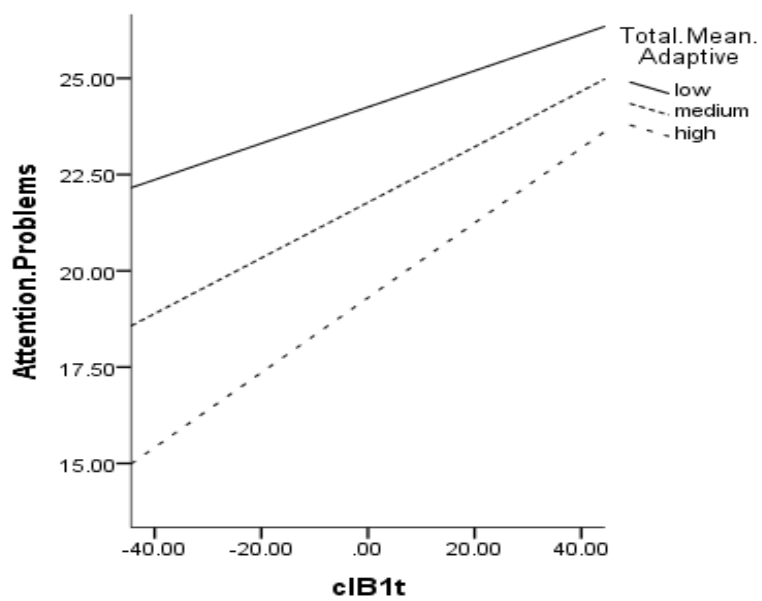


Figure 17. Interaction effect of total mean adaptive between Cluster B PD and attention problem among clinical sample

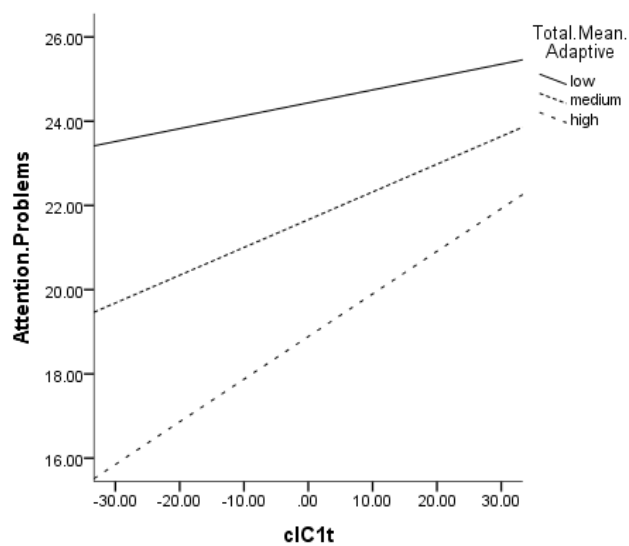


Figure 18. Interaction effect of total mean adaptive between Cluster C PD and attention problem by among clinical sample

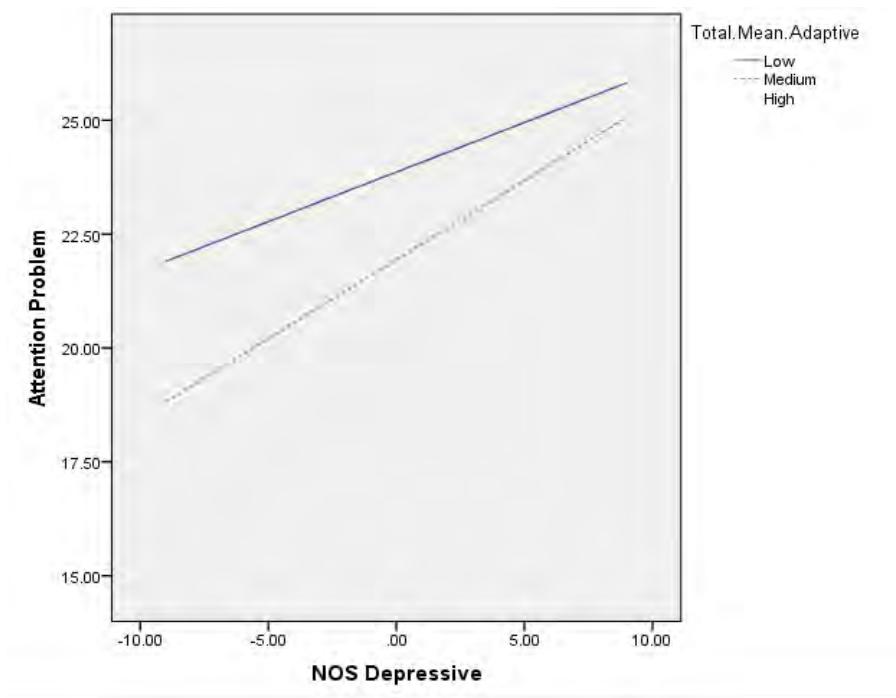


Figure 19. Interaction effect of total mean adaptive between NOS-depressive PD and attention problems among clinical sample

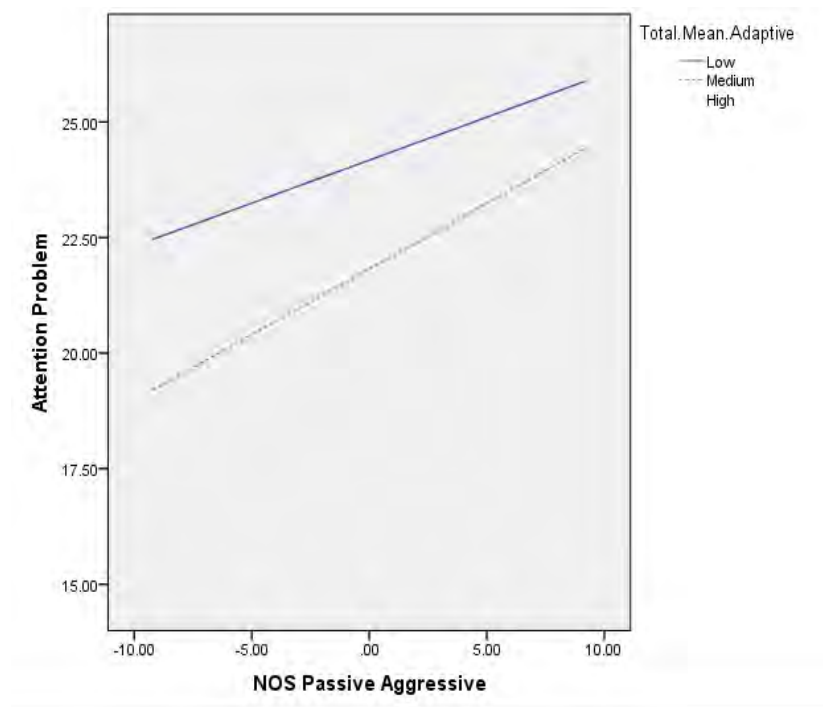


Figure 20. Interaction effect of mean adaptive functioning between NOS-passive aggressive PD and attention problem among clinical sample

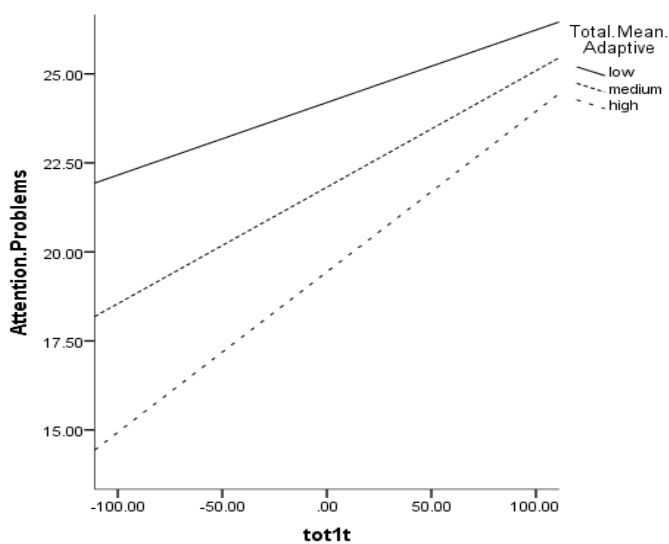


Figure 21. Interaction effect of mean adaptive functioning between total clusters PD and attention problems among clinical sample.

Moderation graph interaction presented in Fig. 22, 23, and 24 represented the results of Model 5 for Table 58. Slope analysis indicated that the slope of the low mean

adaptive line was significantly steeper than the slope of medium and high mean adaptive. These results were like the earlier graphs of Model 1, 2, and 3. Graphs highlighted that clinical adults had lowest total problem behaviors at highest level of mean adaptive functioning. In other words, the relationship between total problem behaviors and PDS was weakest at highest level of mean adaptive functioning and vice versa.

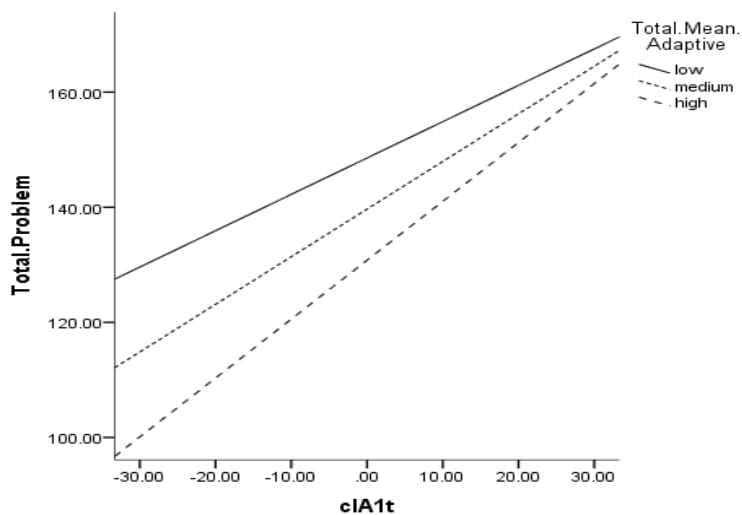


Figure 22. Interaction effect of mean adaptive functioning between Cluster A PD and total problem behavior (ASR) among clinical sample.

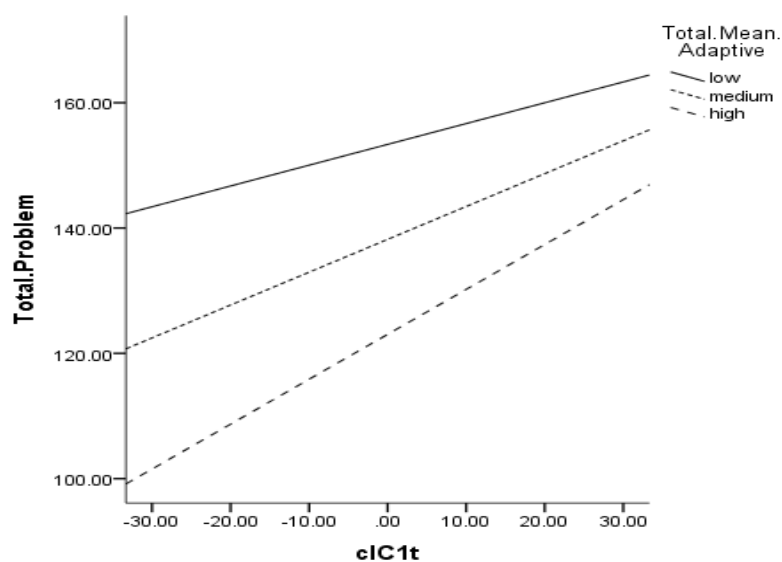


Figure 23. Interaction effect of mean adaptive functioning between Cluster C PD and total problem behaviors (ASR) among clinical sample.

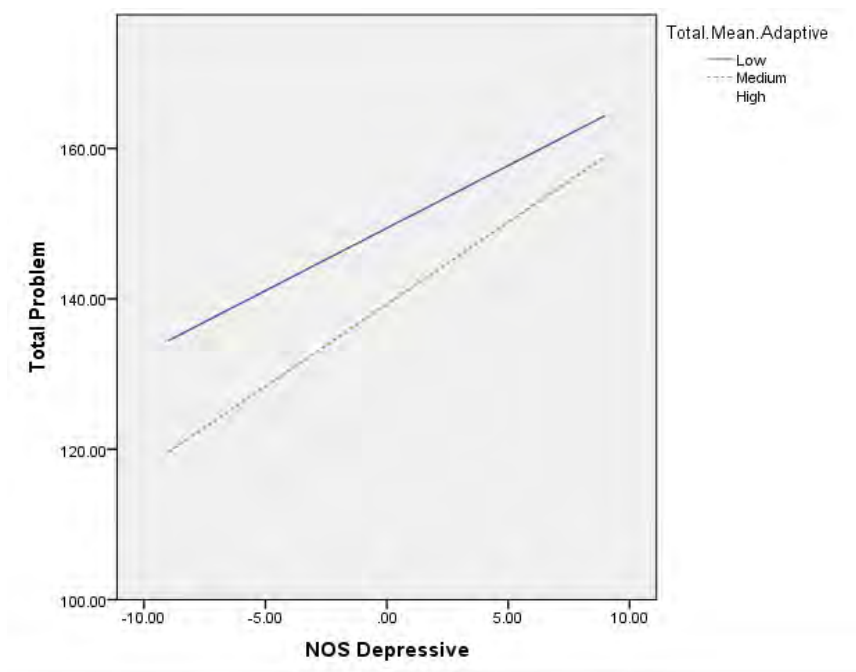


Figure 24. Interaction effect of mean adaptive functioning between NOS- Depressive PD and total problem behaviors (ASR) among clinical sample

Table 59

Moderating Role of Adaptive Functioning for the Relationship between Cluster A, B, C, and Total Cluster with Internalizing, Externalizing, Thought, Attention, and Total Problem Behavior across Non-Clinical Sample (N = 487)

Predictors	Model 1			Model 2			Model 3			Model 4			Model 5		
	Internalizing			Externalizing			Thought Problem			Attention Problem			Total Problem Behavior		
	B	SE	95%CI	B	SE	95%CI	B	SE	95%CI	B	SE	95%CI	B	SE	95%CI
Cluster A	.26**	.03	[.20, .31]	.13**	.02	[.09, .18]	.04**	.02	[.02, .05]	.08**	.01	[.06, .11]	.64**	.07	[.51, .78]
Adp. Fun	-.36**	.07	[-.50, -.22]	-.11*	.06	[-.23, -.004]	-.03	.02	[-.07, .004]	-.14**	.03	[-.20, -.08]	-.57**	.17	[-.91, -.24]
Cluster A * Adp.Fun	-.01*	.003	[-.01, -.002]	.001	.002	[-.003, .005]	.001	.001	[-.001, .002]	.003*	.001	[-.01, -.001]	-.001	.01	[-.02, .01]
R ²	.30			.11			.10			.21			.22		
F	63.78**			22.89**			20.87**			41.91**			46.18**		
Cluster B	.17**	.02	[.13, .21]	.13**	.02	[.10, .16]	.03**	.004	[.02, .04]	.06	.01	[-.004, .003]	.49**	.05	[.39, .59]
Adp. Fun	-.44**	.08	[-.59, -.29]	-.11*	.05	[-.21, -.005]	-.04*	.02	[-.07, -.002]	-.15**	.03	[-.21, -.09]	-.56**	.16	[-.88, -.25]
Cluster B * Adap.Fun	-.004	.002	[-.01, .001]	-.002	.002	[-.01, .00]	.00	.001	[-.001, .001]	-.002	.001	[-.004, .000]	-.004	.01	[-.02, .02]
R ²	.27			.19			.11			.22			.25		
F	51.96**			34.50**			21.94**			41.25**			43.17**		
Cluster C	.24**	.03	[.19, .29]	.12**	.02	[.08, .16]	.03**	.005	[.02, .004]	.09**	.01	[.07, .11]	.61**	.06	[.49, .73]
Adp. Fun	-.40**	.08	[-.55, -.25]	-.14*	.06	[-.26, -.03]	-.04*	.02	[-.08, -.01]	-.14**	.03	[-.20, -.07]	-.61**	.17	[-.94, -.27]
Cluster C * Adap.Fun	-.01*	.003	[-.01, -.001]	-.002	.002	[-.002, .008]	.001	.001	[-.001, .002]	-.002	.001	[-.01, .000]	-.003	.01	[-.02, .01]
R ²	.29			.11			.08			.25			.23		
F	66.30**			483.00**			19.89**			55.45**			48.97**		
N.DP	.67**	.07	[.51, .80]	.36**	.05	[.26, .46]	.08**	.02	[.05, .11]	.22**	.03	[.16, .27]	.58**	.05	[.47, .69]
Adp. Fun	-.30**	.07	[-.45, -.16]	-.08	.06	[-.20, .03]	-.04	.02	[-.07, .001]	-.11	.03	[-.17, -.05]	-.03	.05	[-.13, .08]
N.DP* Adp. Fun	.01**	.01	[-.02, -.00]	.002	.005	[-.01, .01]	.002	.001	[-.00, .005]	.001*	.003	[-.01, -.00]	.0004	.006	[-.01, .01]
R ²	.33			.13			.08			.24			.32		
F	89.81**			27.73**			13.41**			55.34**			53.99**		
N.PA	.70**	.09	[.53, .87]	.43**	.07	[.30, .57]	.09**	.02	[.05, .13]	.23**	.03	[.17, .30]	1.73**	.22	[1.30, 2.16]
Adp. Fun	-.34**	.08	[-.50, -.19]	-.09	.06	[-.20, .02]	-.04*	.02	[-.08, -.004]	-.12**	.03	[-.19, -.06]	-.72**	.19	[-1.08, -.34]
N.PA* Adp. Fun	.01*	.01	[-.03, -.00]	.004	.007	[-.01, .01]	-.002*	.002	[-.002, .001]	-.01*	.003	[-.02, -.00]	-.03	.02	[-.08, .01]
R ²	.28			.14			.08			.21			.24		
F	56.98**			22.18**			12.43**			43.96**			44.95**		
Total Cluster	.09**	.01	[.07, .10]	.05**	.01	[.04, .06]	.01**	.02	[.001, .02]	.03**	.003	[.02, .04]	.22**	.02	[.17, .26]
Adp. Fun	-.36**	.07	[-.50, -.22]	-.10	.06	[-.21, .01]	-.03	.02	[-.07, .01]	-.12**	.03	[-.19, -.07]	-.73**	.18	[-1.08, -.38]
Total Cluster * Adap.Fun	-.002*	.001	[-.01, -.00]	.00	.001	[-.002, .001]	.00	.00	[-.004, .001]	-.001*	.001	[-.002, -.00]	-.01	.002	[-.01, .00]
R ²	.32			.16			.11			.25			.27		
F	67.04**			30.83**			23.93**			51.21**			61.71**		

* $p < .05$. ** $p < .001$.

Table 59 explained the moderating role of adaptive functioning in between PDs and ASR scale. Significant interactions were apparent in the Table and therefore mod graphs for the moderating role of mean adaptive functioning between all clusters and Internalizing, attention problems, and total problem in non- clinical sample are explained below:

Moderation graph interaction presented in Fig. 25, 26, 27, 28, and 29 illustrated the moderation of Model 1 in Table 59. Slope analysis indicated the moderating role of mean adaptive functioning between PDs (Cluster A, C, NOS-depressive, NOS-passive aggressive, and total clusters) and internalizing behavioral problem. These graphs indicated the weakest relationship between PDs and internalizing at highest mean adaptive and strongest at lowest mean adaptive functioning. These results provided an indication of buffering effect of mean adaptive on the negative relationship between PDs and problem behavior.

Similar pattern of the relationship was also apparent for attention problem and PDs in Fig 30, 31, 32, and 33. These figures represented the results of Model 4 of Table 59. The slope analysis indicated moderating role of mean adaptive functioning between PDs (Cluster A, NOS-depressive, NOS-passive aggressive, and total clusters) and attention problem. Furthermore, an apparent weak relationship between PDs and attention problem was highlighted at the highest level of mean adaptive functioning as compared to medium and low levels of adaptive functioning.

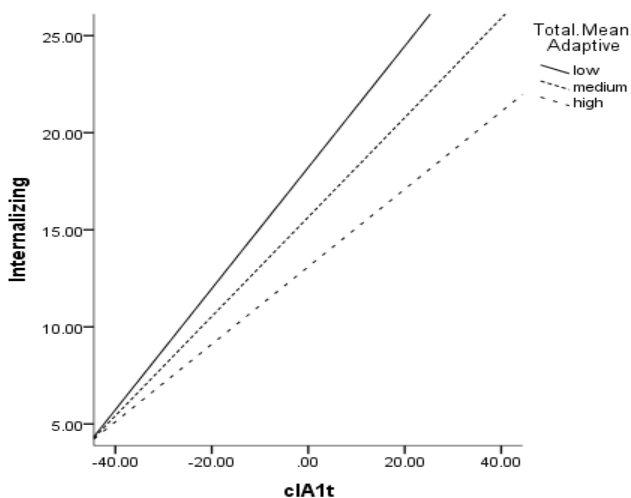


Fig 25. Interaction effect of mean adaptive functioning between Cluster A PD and syndrome scale internalizing problem among non-clinical sample

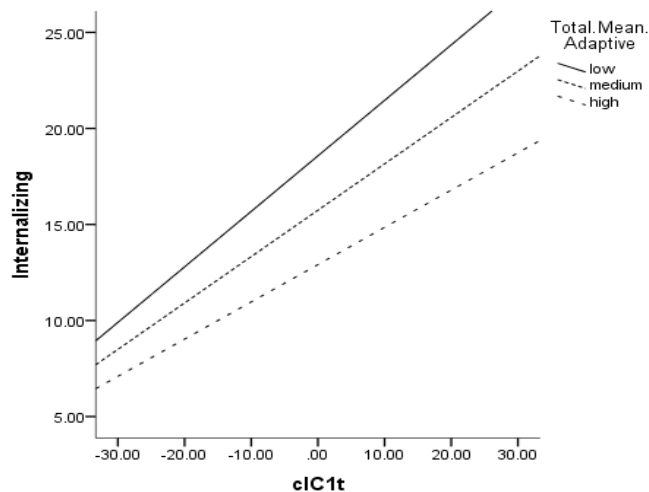


Figure 26. Interaction effect of mean adaptive functioning between Cluster C PD and syndrome scale internalizing problem among non-clinical sample

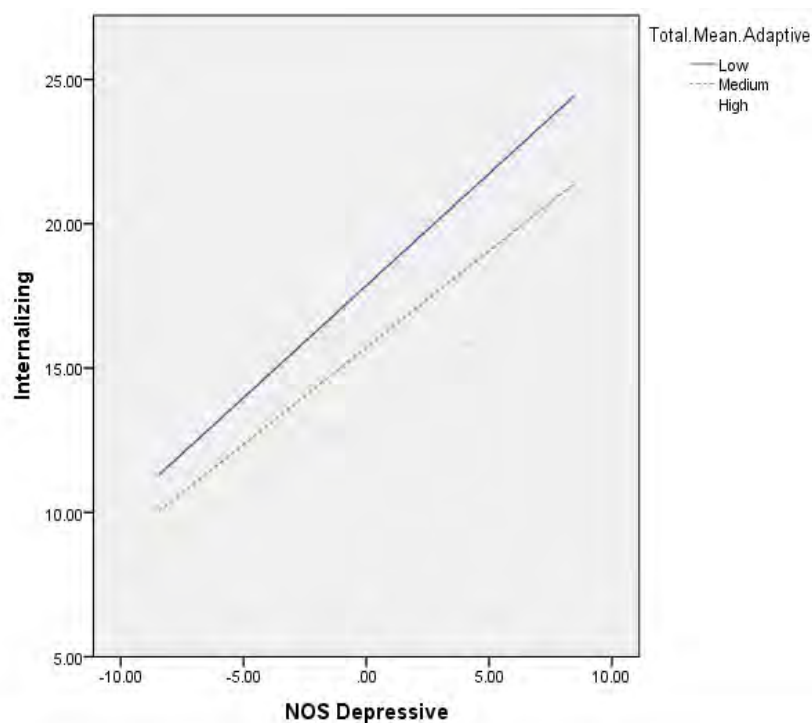


Figure 27. Interaction effect of mean adaptive functioning between NOS-depressive PD and syndrome scale internalizing problem among non-clinical sample

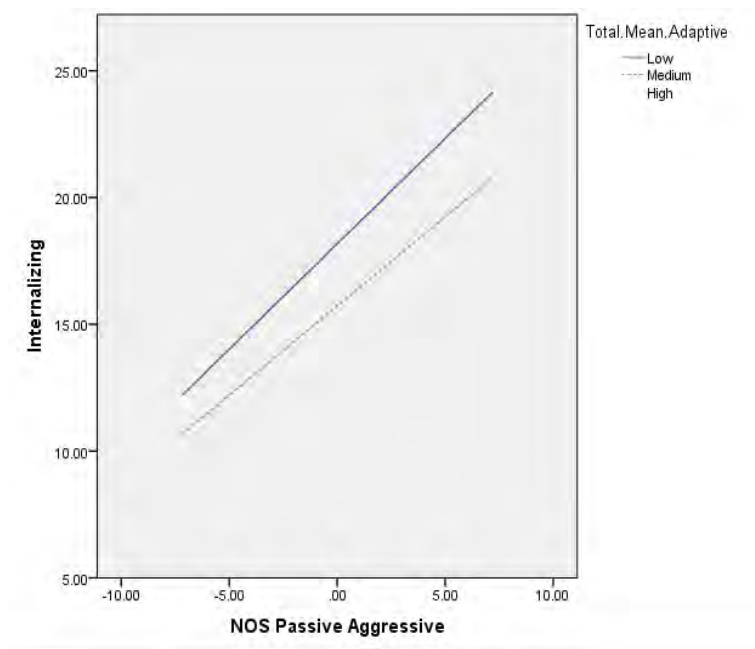


Figure 28. Interaction effect of mean adaptive functioning between NOS-passive aggressive PD and syndrome scale internalizing problem among non-clinical sample

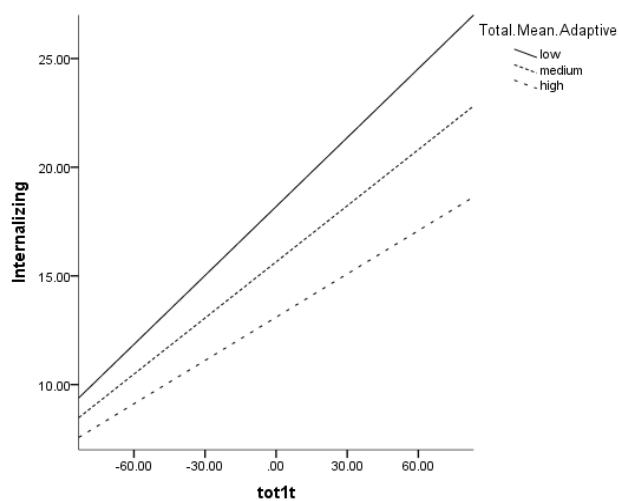


Figure 29. Interaction effect of mean adaptive functioning between total Cluster PD and syndrome scale internalizing problem among non-clinical sample

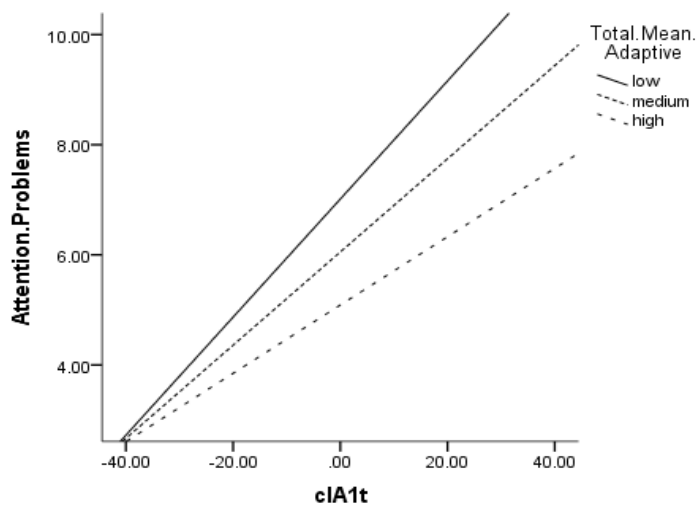


Fig 30. Interaction effect of mean adaptive functioning between Cluster A PD and attention problem among non-clinical sample

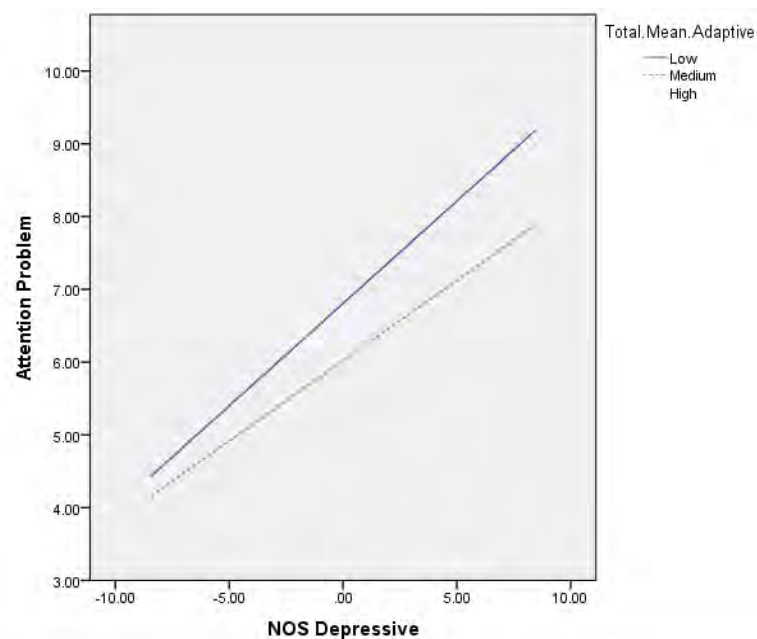


Figure 31. Interaction effect of mean adaptive functioning between NOS-depressive PD and attention problem among non-clinical sample

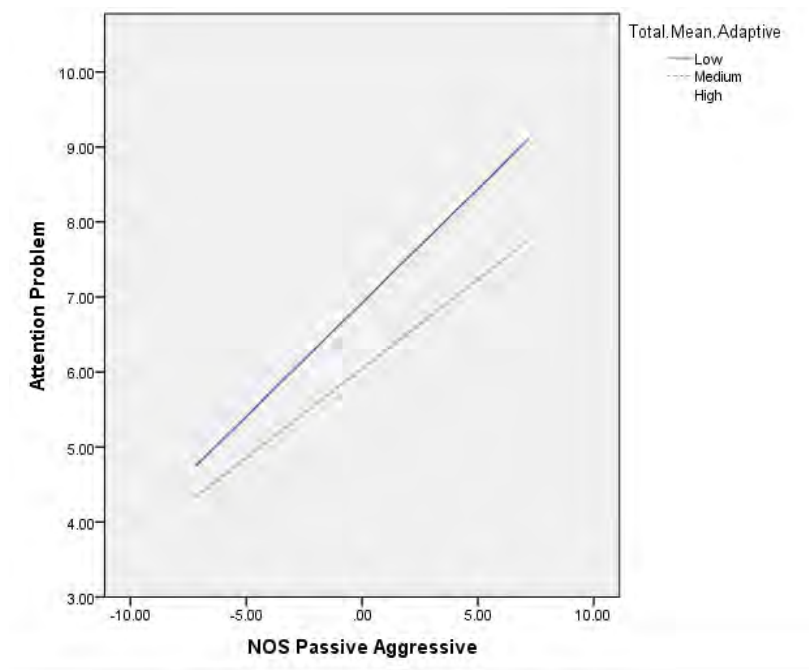


Figure 32. Interaction effect of mean adaptive functioning between NOS-passive aggressive PD and attention problem among non-clinical sample

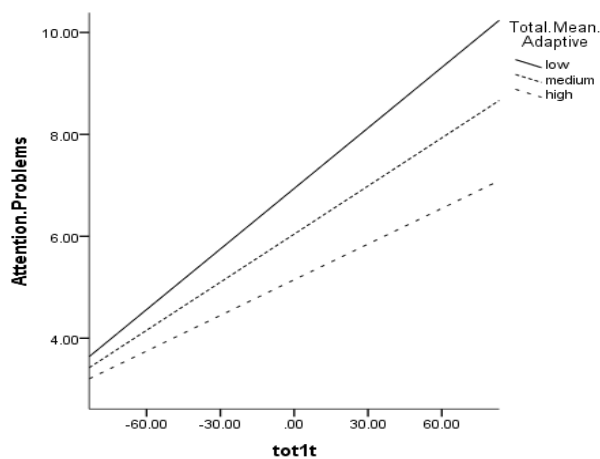


Figure 33. Interaction effect of mean adaptive functioning between total Cluster PD and attention problems among non-clinical sample

Table 60

Moderating Role of Gender for Relationship between Clusters (A, B, C, NOS Depressive, NOS Passive Aggressive, and Total Clusters) and Internalizing, Externalizing, Thought, Attention, and Total Problem Behavior across Clinical Sample (N = 408)

Predictors	Model 1			Model 2			Model 3			Model 4			Model 5		
	Internalizing			Externalizing			Thought Problem			Attention Problem			Total Problem Behavior		
	<i>B</i>	<i>SE</i>	95 % <i>CI</i>	<i>B</i>	<i>SE</i>	95 % <i>CI</i>	<i>B</i>	<i>SE</i>	95 % <i>CI</i>	<i>B</i>	<i>SE</i>	95 % <i>CI</i>	<i>B</i>	<i>SE</i>	95 % <i>CI</i>
Cluster A	.25**	.02	[.20, .30]	.31	.02	[27.33, .36]	.08**	.01	[.06, .09]	.13**	.01	[.11, .15]	.92**	.06	[.79, 1.03]
Gender	7.27**	1.29	[4.73, 9.79]	6.19	1.21	[-8.59, -3.81]	.51	.36	[-.20, 1.23]	2.07**	.59	[.89, 3.25]	4.32	3.29	[-2.17, 10.79]
Cluster A * Gender	-.19**	.05	[-.29, -.10]	-.07	.04	[-.14, .02]	.001	.01	[-.02, .03]	.09**	.02	[-.13, -.05]	-.42**	.12	[-.65, -.18]
<i>R</i> ²	.27			.40			.24			.30			.39		
<i>F</i>	35.79**			118.38**			49.73**			49.46**			83.12**		
Cluster B	.15**	.02	[.11, .18]	.29**	.01	[.26, .32]	.04**	.01	[.03, .05]	.09**	.01	[.07, .10]	.67**	.04	[.59, .77]
Gender	7.39**	1.48	[4.47, 10.31]	-3.45**	1.13	[5.67, 1.23]	.53	.42	[.29, 1.36]	2.30**	.68	[.97, 3.65]	8.23*	3.62	[1.11, 15.35]
Cluster B * Gender	-.16**	.04	[-.24, -.09]	-.08*	.02	[-.14, -.02]	.01	.01	[-.02, .02]	-.09**	0.02	[-.12, -.05]	.39**	.09	[-.58, -.21]
<i>R</i> ²	.19			.54			.13			.34			.37		
<i>F</i>	20.57**			190.55**			21.16**			39.82**			87.33**		
Cluster C	.12**	.02	[.07, .17]	.18**	.03	[.13, .24]	.03**	.01	[.02, .05]	.06**	.01	[.04, .09]	.49**	.07	[.35, .64]
Gender	5.65**	1.46	[2.78, 8.52]	7.86	1.44	[-10.69, -5.03]	.02	.42	[-.85, .81]	1.19	.70	[-.18, 2.58]	1.09	4.03	[-9.03, 6.84]
Cluster C * Gender	-.23**	.05	[-.33, -.13]	-.09	.05	[-.21, .01]	-.01	.02	[-.04, .02]	-.11**	.03	[-.16, -.06]	.53**	.14	[-.82, -.54]
<i>R</i> ²	.12			-.22			.06			.12			.15		
<i>F</i>	11.18**			46.25**			8.19**			14.98**			24.09**		
T.Cluster	.07**	.01	[.11, .04]	.11**	.01	[.10, .13]	.02**	.002	[.02, .03]	.04**	.003	[.03, .05]	.29**	.02	[.25, .33]
Gender	7.4	1.4	[4.64, 10.16]	-4.6**	1.19	[-6.95, -2.25]	.59	.40	[-.20, 1.38]	2.22**	.65	[.95, 3.49]	6.78	3.52	[-.13, 13.71]
T.Cluster * Gender	-.08**	-.02	[-.11, -.04]	-.03	.01	[-.05, .00]	-.0004	.01	[-.01, .01]	-.04**	.01	[-.05, -.02]	.16**	.04	[-.24, -.08]
<i>R</i> ²	.22			.45			.16			.26			.36		
<i>F</i>	25.66**			136.97**			27.91**			43.11**			78.79**		
N.DP	.89**	.08	[.74, 1.05]	.65**	.08	[.50, .80]	.14**	.02	[.10, .19]	.40**	.04	[.33, .48]	2.44**	.21	[2.04, 2.85]
Gender	4.93**	1.17	[2.63, 7.23]	-9.64**	1.28	[-12.22, -7.17]	-.36	.38	[-1.11, .39]	.77	.58	[.37, 1.91]	-5.20	3.3	[-11.68, 1.27]
N.DP* Gender	-.29	.16	[-.60, .01]	-.26	.15	[-.56, .03]	-.06	.04	[-.15, .03]	-.18*	.08	[-.33, -.03]	-.95*	.41	[-1.76, -.13]
<i>R</i> ²	.34			.26			.12			.30			.32		
<i>F</i>	47.74**			51.61**			19.58**			43.24**			52.48**		
N.PA	.71**	.08	[.57, .86]	.88**	.06	[.76, 1.00]	.17**	.02	[.13, .21]	.35**	.03	[.28, .42]	2.52**	.19	[2.14, 2.88]
Gender	6.69**	1.3	[4.41, 9.52]	-6.88**	1.21	[-9.27, -4.48]	.21	.38	[-.54, .96]	1.74*	.62	[.51, 2.97]	2.4	3.38	[-4.23, 9.04]
N.PA * Gender	-.36*	.15	[-.65, -.07]	.19	.12	[.44, .05]	-.01	.04	[-.09, .07]	-.24**	.07	[-.38, -.10]	-.95*	.37	[-1.68, -.22]
<i>R</i> ²	.24			.38			.16			.24			.33		
<i>F</i>	31.26**			102.53**			26.67**			37.04**			66.17**		

Note. T. Cluster = Total Clusters; N.DP = Nos Depressive; N.PA = Nos Passive Aggressive

* $p < .05$. ** $p < .001$.

Interaction effect of gender (Table 60) with PDs (Cluster A, B, C, & total) for eight syndrome model were shown in models in the above table. Gender moderated significantly between clusters and syndrome scales (internalizing, thought, and total problem score), while non-significant moderation was apparent for externalizing and attention problem scores. Interaction effect of gender and cluster A accounted for an additional 2 % variance for total problem score, 3 % variance for internalizing and, 3 % variance for thought problem as well.

Similarly, moderating role of gender was also confirmed in relation between Cluster B and syndrome-based scales (internalizing, externalizing, attention, and total problem behavior). Whereas non-significant moderation was apparent in case of thought problems. Interaction effect of gender and cluster B accounted for an additional 2 % variance in total problem score, 3 % in case of internalizing behavioral problems, 1 % in case of externalizing behavioral problems, and 4 % in case of attention problems.

For Cluster C, moderating role of gender was confirmed for internalizing, attention, and total problem score. Non-significant interaction was evident for externalizing and thought problems. Significant interaction between gender and cluster C accounted for an additional 2 % variance in case of internalizing behavioral problems, and 4 % in case of internalizing and attention problems each.

For NOS depressive PD significant moderation was apparent for attention and total problem score accounting for 1 % additional variance in each case. Non-significant interaction effect was apparent for internalizing, externalizing and thought problem. For NOS passive aggressive PD, significant moderation by gender was apparent in case of internalizing, attention, and total problem accounting for 1 %, 2 % and 1 % additional variance in each case respectively. Non-significant moderating effect was apparent for externalizing and thought problems.

For total cluster, significant moderation by gender was apparent in case of internalizing, attention, and total problem accounting for an additional 3 %, 4 % and 2 % variance in each case respectively. Non-signification interaction effect was evident for externalizing and thought problems.

Moderation graphs for table 60 are explained below:

Examination of interaction plot in Figure 34 showed that at low level of PDs (Cluster A) female had higher internalizing behavioral problem as compared to male. Similarly, at higher level of cluster A, female scored higher on internalizing behavioral problem. However, the steep of the slope indicated steeper increase in internalizing behavioral problem with cluster A was more apparent for male.

Graph (Figure 35) illustrated the interaction effect of gender and cluster B for internalizing behavioral problem among clinical sample. It further indicated higher internalizing behavioral problems in female than in male. However, the steeper slope for male indicated that internalizing behavioral problem increased rapidly with increase in cluster A problems among male.

Examination of the interaction effect in Figure 36, between gender and cluster C indicated that females had higher internalizing behavioral problems and low cluster C scores than in male. However, the steep of slope illustrated an apparent steeper positive association of internalization and cluster C in male than in females.

Interaction of total clusters and gender (Figure 37) showed that females had higher internalizing behavioral problems and low total cluster scores as compared to male. However, the steep slope was apparent for male than in female.

Interaction of NOS-passive aggressive PD and gender (Figure 38) showed that female had higher passive aggressive PD and internalizing scores as compared to male. However, the steep slope was apparent for male than in female.

Figure 39 represented the significant moderation of Model 2 for Table 60. Interaction effect of gender and Cluster B showed that both male and female had similar trend for externalizing behavioral problems. However, the steepness of slope further illustrated that male had higher externalizing behavioral problems as compared to females.

Figure 40, 41, 42, 43, 44, and 45 represented the significant moderation for Model 5 in Table 60. The mod graphs represented the moderating role of gender between PDs (Cluster A, B, C, total clusters, NOS-depressive, and NOS-passive aggressive) and attention problems respectively. The moderating role of gender was quite apparent and

similar trends as of internalizing and externalizing behavioral problems were also highlighted in these graphs. Examination of the interaction between gender and PDs for attention problems illustrated that female had higher attention problems with lower PDs as compared to male. However, the point of influx of both slopes illustrated that male tend to have higher attention problem with increase in PDs at a certain point.

Lastly, similar trends were also highlighted for gender in relationship between PDs and syndrome scale total in Fig 46, 47, 48, 49, 50, and 51. Moderation of gender for syndrome scale total problems indicated that although female had higher total problems with lower score of PDs, however, steeper slope was apparent for males.

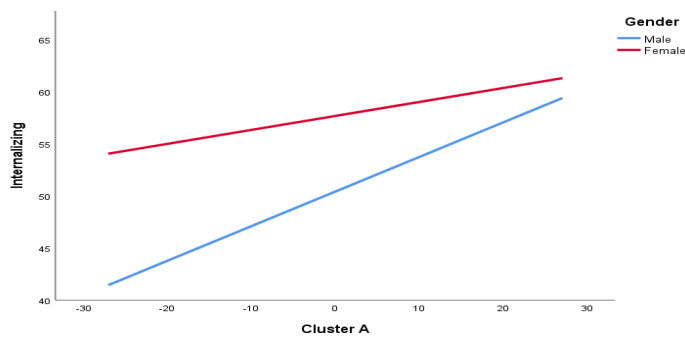


Figure 34. Interaction effect of gender between cluster A PD and syndrome scale internalizing behavioral problems among clinical sample

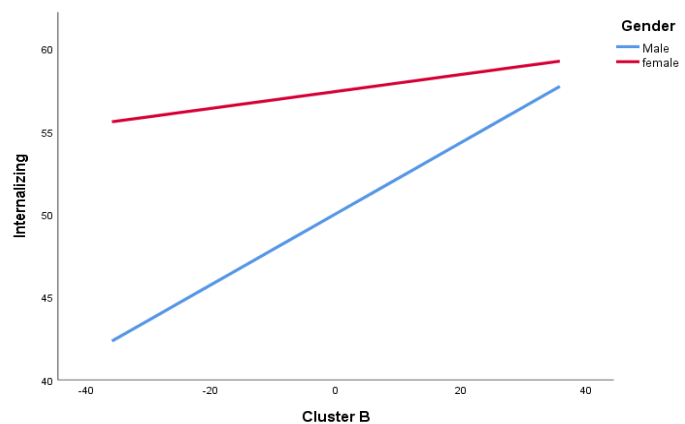


Figure 35. Interaction effect of gender between cluster A PD and syndrome scale internalizing behavioral problems among clinical sample

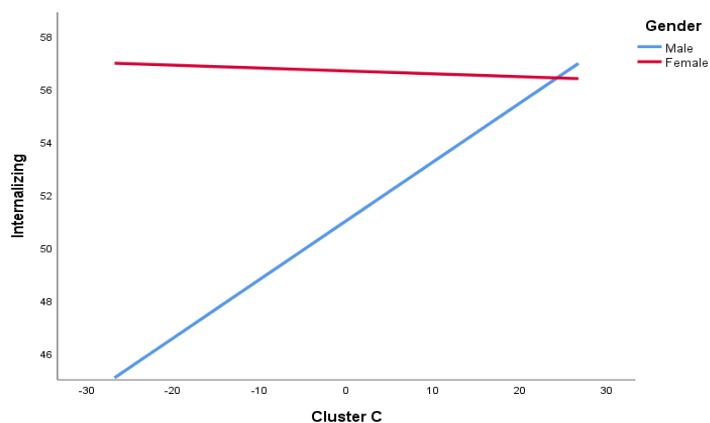


Figure 36. Interaction effect of gender between cluster C PD and syndrome scale internalizing behavioral problems among clinical sample

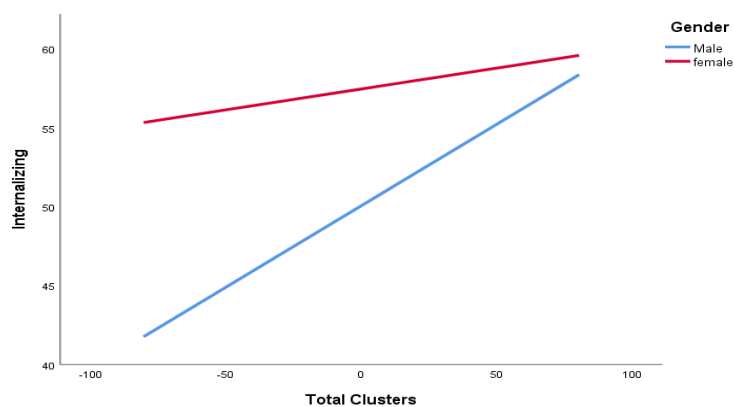


Figure 37. Interaction effect of gender between total clusters PD and syndrome scale internalizing behavioral problems among clinical sample

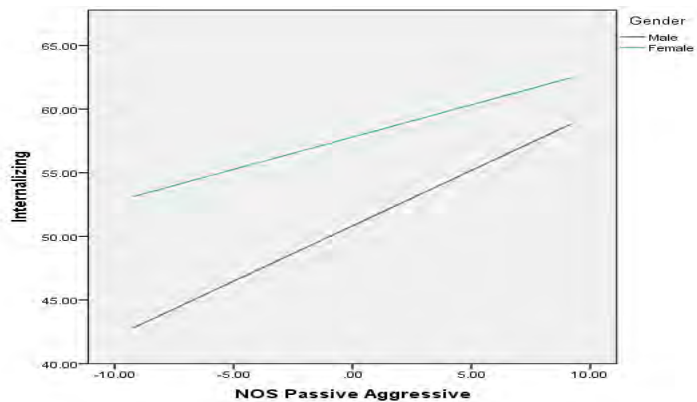


Figure 38. Interaction effect of gender between NOS-passive aggressive PD and syndrome scale internalizing behavioral problems among clinical sample

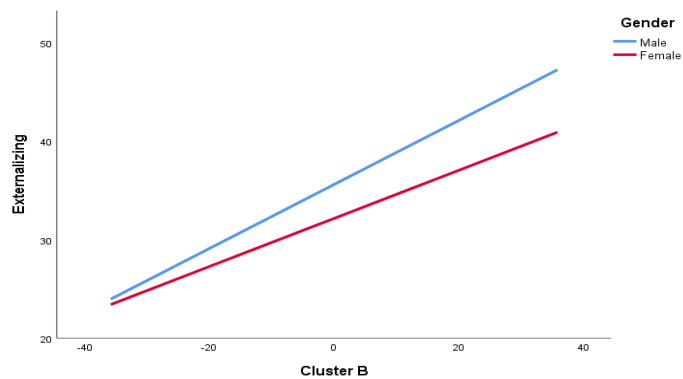


Figure 39. Interaction effect of gender between cluster B PD and syndrome scale externalizing behavioral problems among clinical sample

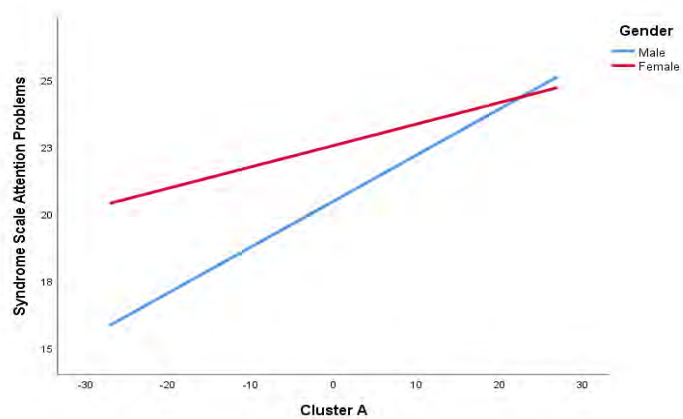


Figure 40. Interaction effect of gender between cluster A and attention problems among clinical sample

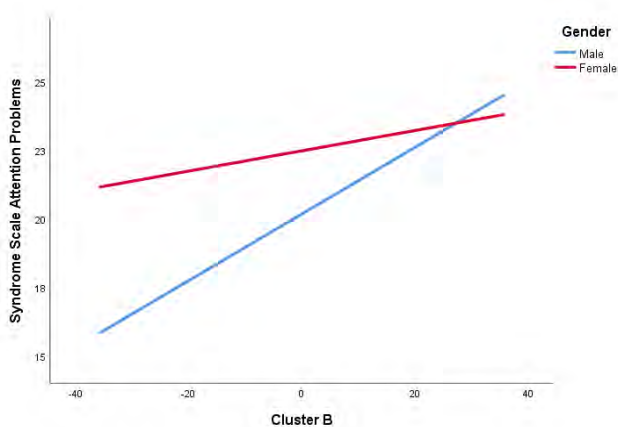


Figure 41. Interaction effect of gender between cluster B and attention problems among clinical sample

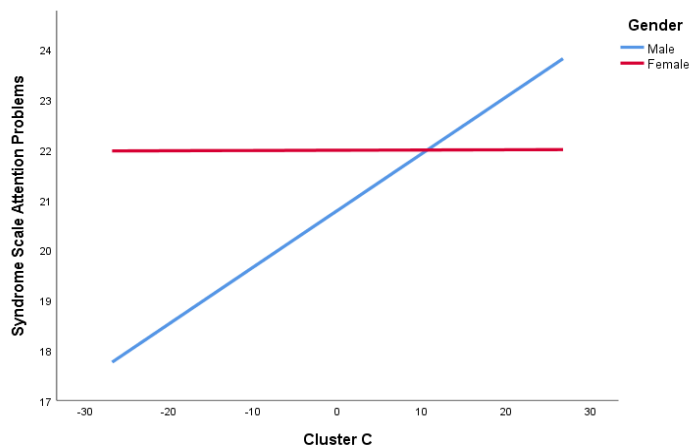


Figure 42. Interaction effect of gender between cluster C and attention problems among clinical sample

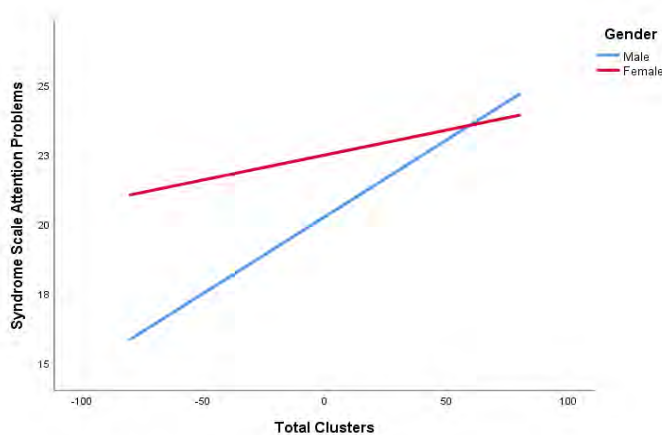


Figure 43. Interaction effect of gender between total clusters and attention problems among clinical sample

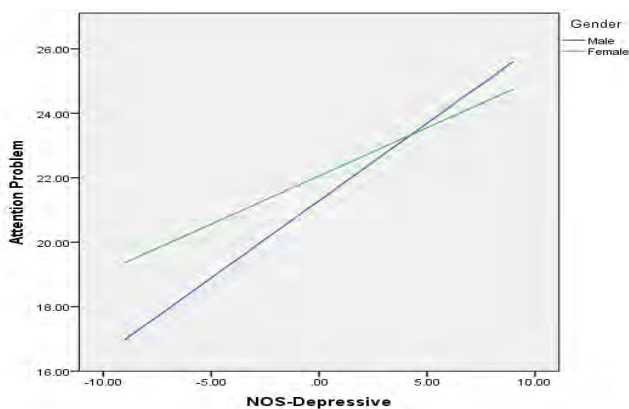


Figure 44. Interaction effect of gender between NOS depressive PD and syndrome scale attention problems among clinical sample

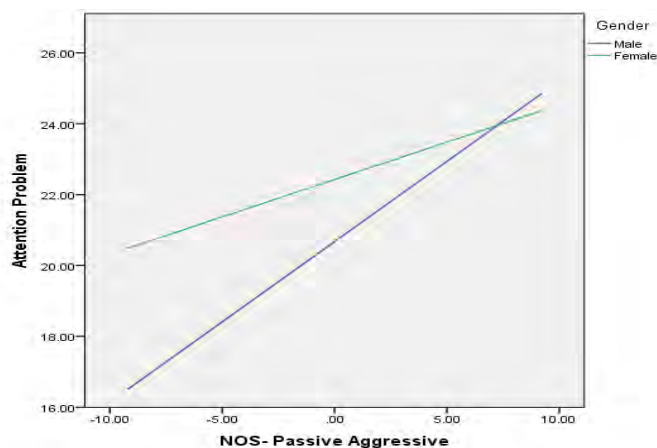


Figure 45. Interaction effect of gender between NOS passive aggressive PD and attention problems among clinical sample

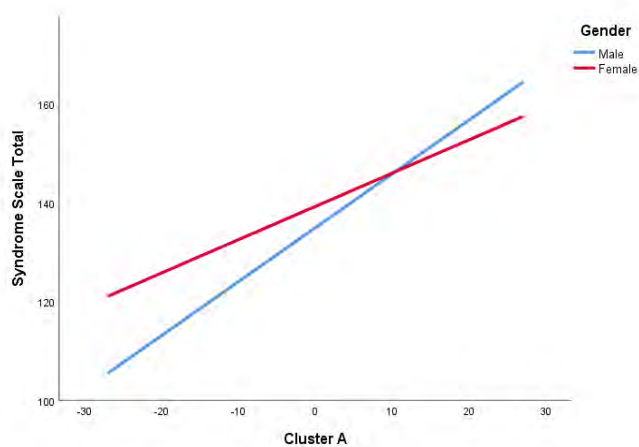


Figure 46. Interaction effect of gender between cluster A and syndrome scale total problems among clinical sample

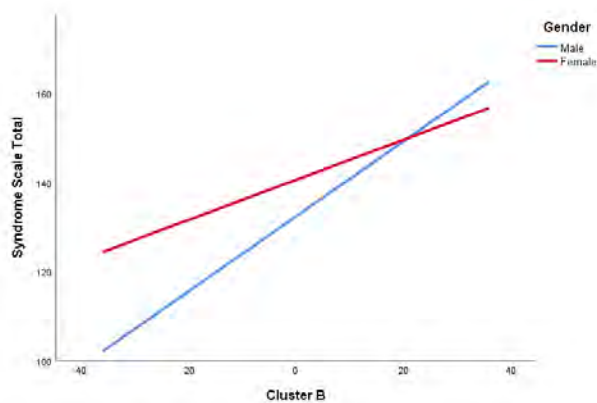


Figure 47. Interaction effect of gender between cluster B and syndrome scale total problems among clinical sample

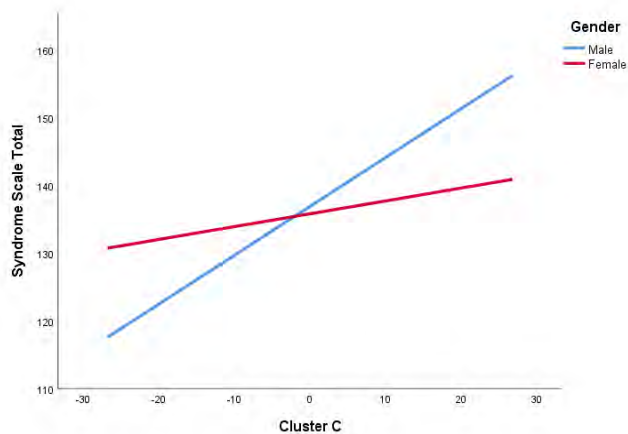


Figure 48. Interaction effect of gender between cluster C and syndrome scale total problems among clinical sample

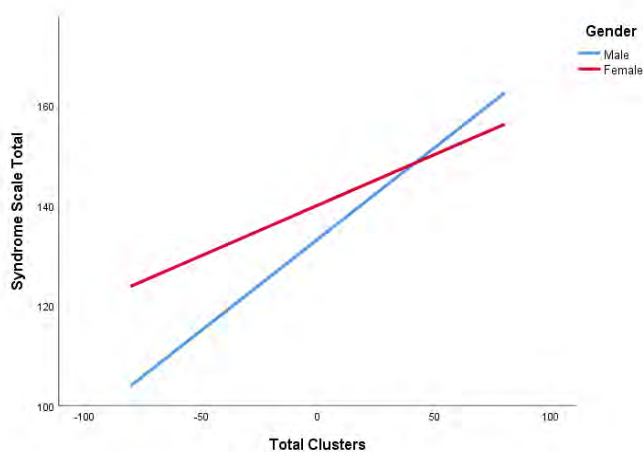


Figure 49. Interaction effect of gender between total clusters and syndrome scale total problems among clinical sample

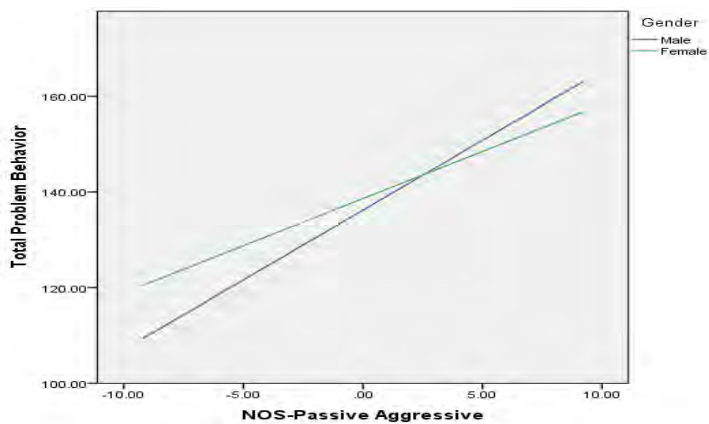


Figure 50. Interaction effect of gender between NOS-passive aggressive PD and syndrome scale total problems among clinical sample

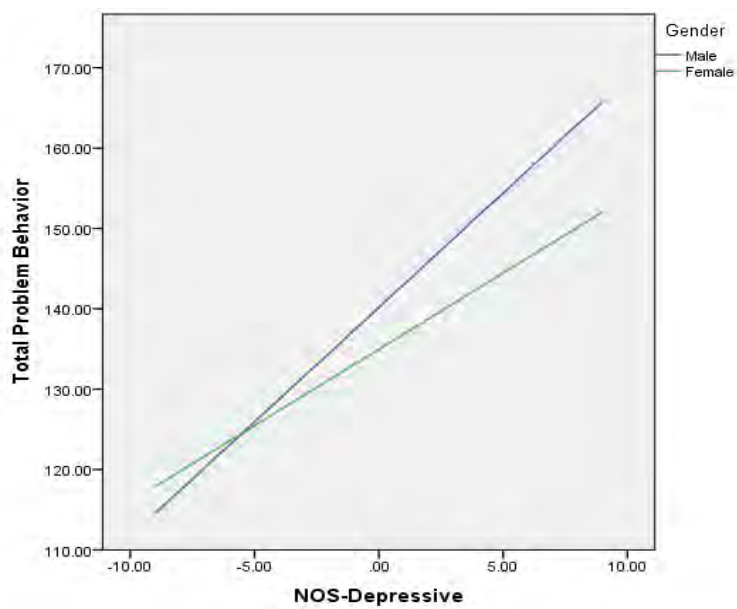


Figure 51. Interaction effect of gender between NOS-depressive PD and syndrome scale total problems among clinical sample

Table 61

Moderating Role of Gender for Relationship between Clusters (A, B, C, NOS Depressive, NOS Passive Aggressive, & Total Clusters) and Internalizing, Externalizing, Thought, Attention, and Total Problem Behavior across Non-Clinical Sample (N = 487)

Predictors	Model 1			Model 2			Model 3			Model 4			Model 5		
	Internalizing			Externalizing			Thought Problem			Attention Problem			Total Problem Behavior		
	B	SE	95 % CI	B	SE	95 % CI	B	SE	95 % CI	B	SE	95 % CI	B	SE	95 % CI
Cluster A	.30**	.03	[.24, .35]	.15**	.02	[.11, .19]	.04**	.01	[.03, .05]	.10**	.01	[.08, .12]	.70**	.07	[.57, .83]
Gender	.35	.99	[-1.60, 2.31]	.91	.80	[-2.48, .65]	-.33	.24	[-.81, .14]	.40	.43	[-1.23, .44]	-2.05	2.59	[-7.15, 3.03]
Cluster A * Gender	.04	.05	[-.07, .15]	-.03	.04	[-.11, .04]	.02*	.01	[-.04, -.00]	-.02	.02	[-.06, .03]	-.06	.13	[-.31, .20]
R ²	.24			.11			.10			.17			.20		
F	38.38**			19.96**			20.18**			26.75**			36.90**		
Cluster B	.20**	.02	[.15, .24]	.14**	.01	[.10, .17]	.03**	.004	[.02, .04]	.07**	.01	[.05, .08]	.52**	.05	[.42, .62]
Gender	.51	1.04	[-1.52, 2.55]	-.98	.76	[-2.48, .52]	-.33	.24	[-.80, .14]	-.36	.42	[-1.19, .47]	-1.93	2.58	[-7.0, 3.13]
Cluster B * Gender	.01	.04	[-.08, .09]	.03	.02	[-.09, .01]	-.01	.01	[-.03, .01]	-.02	.02	[-.05, .02]	-.08	.10	[-.28, .12]
R ²	.20			.18			.11			.17			.22		
F	29.59**			30.30**			18.45**			25.96**			34.58**		
Cluster C	.27**	.03	[.22, .32]	.14**	.02	[.10, .17]	.03**	.005	[.02, .04]	.11**	.01	[.09, .13]	.66**	.06	[.54, .78]
Gender	.08	1.01	[-1.90, 2.05]	1.03	.81	[-2.62, .54]	-.35	.24	[-.83, .13]	-.53	.42	[-1.36, .28]	-2.74	2.61	[-7.87, 2.38]
Cluster C * Gender	-.02	.05	[-.08, .12]	-.05	.04	[-.12, .02]	-.02*	.01	[-.04, -.00]	-.03	.02	[-.07, .004]	-.13	.12	[-.37, .10]
R ²	.23			.11			.08			.22			.21		
F	40.35**			19.43**			16.80**			38.18**			39.68**		
Total Cluster	.09**	.01	[.08, .11]	.06**	.01	[.04, .07]	.01**	.001	[.01, .02]	.04**	.003	[.03, .04]	.24**	.02	[.20, .28]
Gender	.18	.99	[-1.76, 2.12]	-1.07	.78	[-2.60, .45]	.36	.24	[-.83, .11]	-.48	.41	[-1.29, .33]	-2.6	2.53	[-7.57, 2.37]
Total Cluster * Gender	-.01	.01	[-.03, .04]	-.02	.01	[-.04, .01]	-.02*	.003	[-.01, -.00]	-.01	.01	[-.02, .01]	-.04	.04	[-.12, .05]
R ²	.26			.16			.11			.21			.25		
F	37.74**			27.03**			21.40**			33.38**			40.50**		
N.DP	.79**	.06	[.67, .91]	.40**	.05	[.31, .49]	.09**	.02	[.03, .12]	.28**	.02	[.23, .33]	1.84**	.15	[1.55, 2.12]
Gender	.60	.97	[-1.30, 2.49]	-.80	.79	[-2.34, .75]	-.28	.24	[-.76, .19]	-.32	.41	[-1.13, .48]	-1.49	2.54	[-6.49, 3.50]
N.DP* Gender	.03	.12	[-.20, .26]	-.15	.09	[-.32, .01]	-.07*	.03	[-.14, -.02]	-.02	.05	[-.13, .07]	-.29	.28	[-.85, .26]
R ²	.29			.13			.09			.21			.24		
F	61.67**			28.27**			13.24**			39.57**			56.84**		
N.PA	.83**	.08	[.67, 1.00]	.48**	.06	[.36, .61]	.10**	.01	[.07, .14]	.30**	.03	[.23, .37]	2.05**	.21	[1.62, 2.47]
Gender	.34	.10	[-1.64, 2.32]	-.99	.79	[-2.54, .55]	-.32	.24	[-.81, .16]	-.41	.42	[-1.25, .42]	2.19	2.58	[-7.27, 2.88]
N.PA* Gender	.001	.16	[-.33, .33]	.15	.12	[-.39, .09]	-.07*	.04	[-.15, -.002]	-.06	.06	[-.19, .06]	-.37	.42	[-1.20, .45]
R ²	.24			.14			.08			.17			.21		
F	33.77**			20.12**			10.94**			25.79**			31.24**		

Note. T. Cluster = Total Clusters; N.DP = Nos Depressive; N.PA = Nos Passive Aggressive

* $p < .05$. ** $p < .001$.

Table 61 indicated that for non-clinical sample gender moderated significantly between PDs (cluster A, C, NOS dependent and NOS passive aggressive) and thought problem only accounting for an additional 1 % variance. Non-significant moderation of gender was apparent in case of internalizing, externalizing, attention, and total problem score.

Moderation graphs for the interaction effect across gender predicted thought problem from PDs among non-clinical sample (for Table 61) was shown below from Figure 52 to Figure 56.

Graph illustrated a steeper slope among males to predict thought problems with the increase in scores of PDs as compared to females. However, male had lower thought problems with low PDs as compared to females.

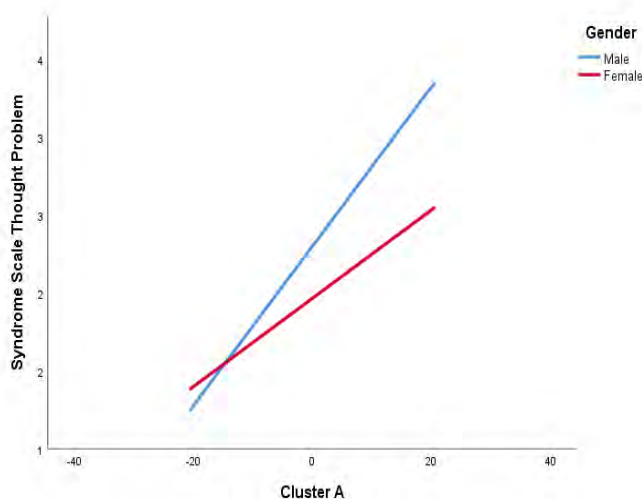


Figure 52. Interaction effect of gender between total clusters and thought problems among non-clinical sample

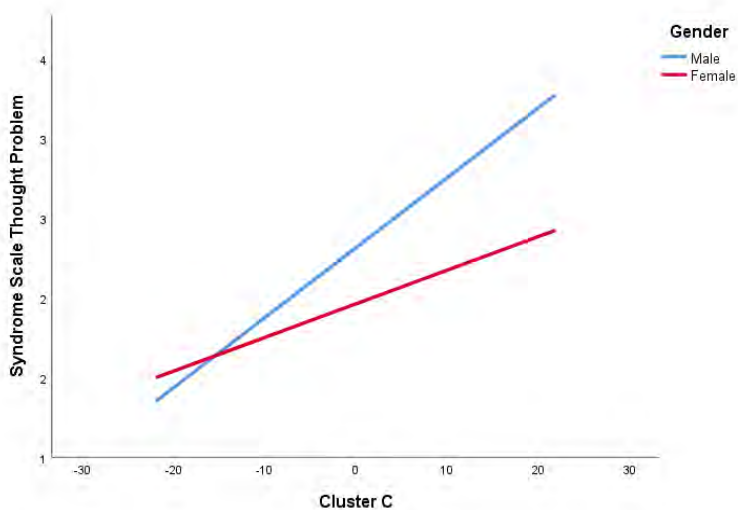


Figure 53. Interaction effect of gender between total clusters and thought problems among non-clinical sample

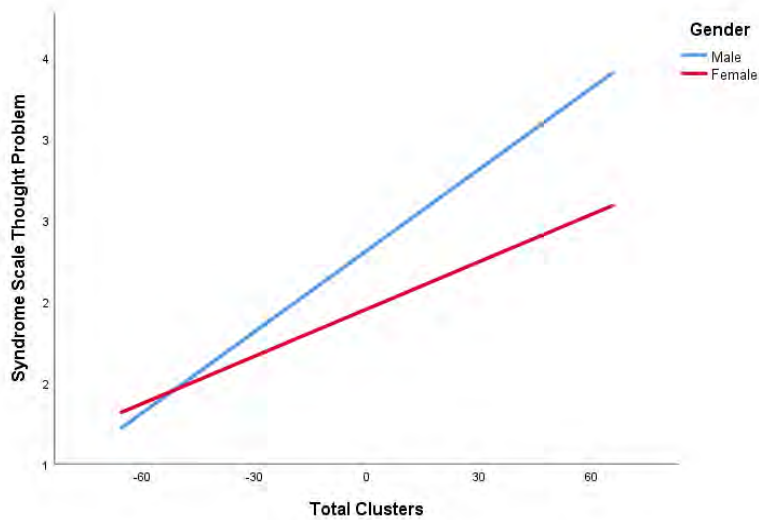


Figure 54. Interaction effect of gender between total clusters and thought problems among non-clinical sample

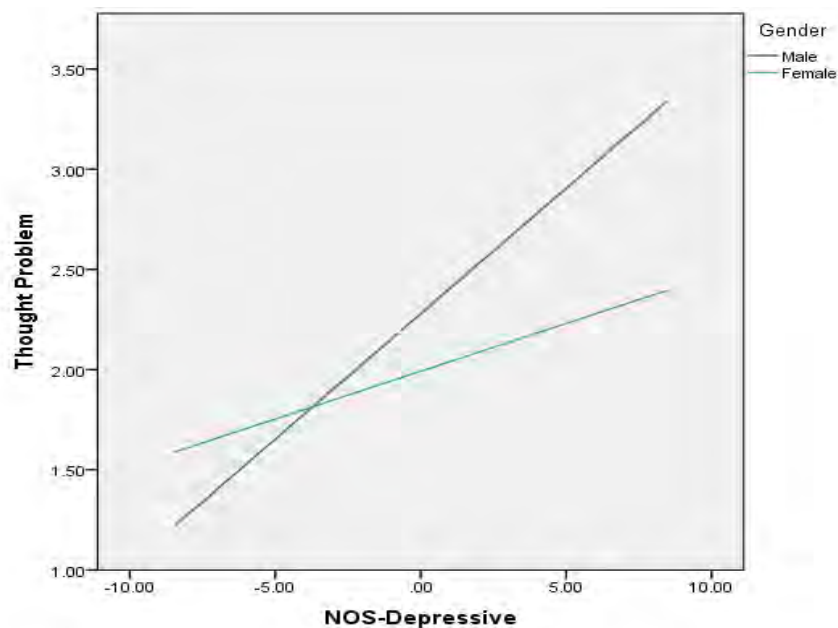


Figure 55. Interaction effect of gender between NOS depressive PD and syndrome scale total problems among non-clinical sample

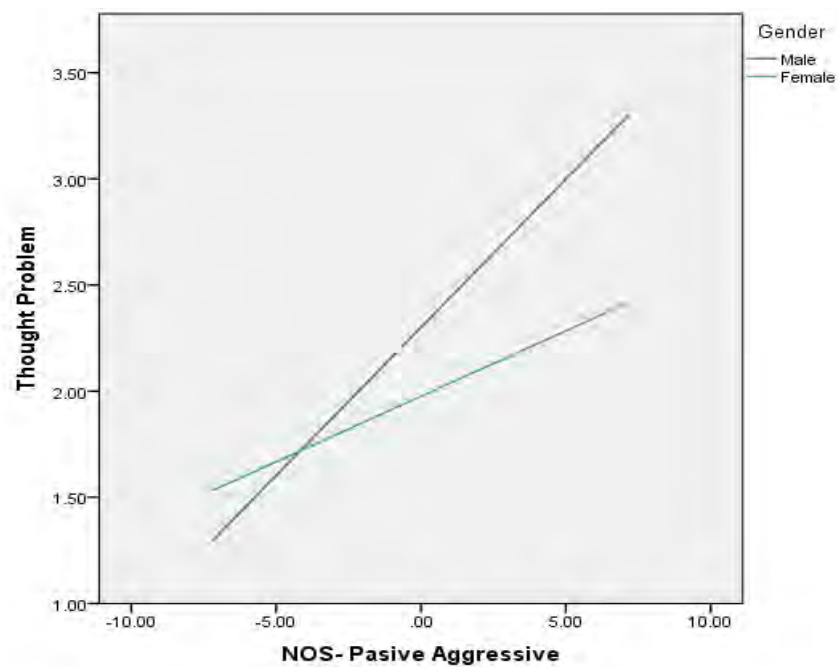


Figure 56. Interaction effect of gender between NOS passive aggressive PD and syndrome scale total problems among non-clinical sample

Table 62

Moderating Role of Age for Relationship between Clusters (A, B, C, NOS Depressive, NOS Passive Aggressive, & Total Clusters) and Internalizing, Externalizing, Thought, Attention, and Total Problem Behavior across Clinical Sample (N = 408)

Predictors	Model 1			Model 2			Model 3			Model 4			Model 5		
	Internalizing			Externalizing			Thought Problem			Attention Problem			Total Problem Behavior		
	<i>B</i>	<i>SE</i>	95 % <i>CI</i>	<i>B</i>	<i>SE</i>	95 % <i>CI</i>	<i>B</i>	<i>SE</i>	95 % <i>CI</i>	<i>B</i>	<i>SE</i>	95 % <i>CI</i>	<i>B</i>	<i>SE</i>	95 % <i>CI</i>
Cluster A	.23**	.02	[.18, .28]	.34**	.01	[.30, .38]	.07**	.01	[.06, .09]	.13**	.01	[.11, .15]	.91**	.06	[.79, 1.04]
Age	1.52	1.35	[-1.13, 4.17]	3.05*	1.21	[-5.43, -.66]	.29	.35	[-.39, .99]	1.56*	.61	[.37, 2.78]	-.03	3.28	[-6.49, 6.44]
Cluster A * Age	-.07	.05	[-.17, .04]	-.10*	.04	[-.18, -.02]	.02	.01	[-.01, .04]	-.05	.02	[-.08, .01]	-.24	.12	[-.48, .001]
<i>R</i> ²	.18			.38			.24			.26			.37		
<i>F</i>	27.29**			112.17**			47.57**			43.37**			85.95**		
Cluster B	.13**	.02	[.09, .16]	.31**	.01	[.28, .33]	.04**	.01	[.03, .05]	.08**	.01	[.07, .10]	.67**	.04	[.58, .76]
Age	1.96	1.42	[-.83, 4.74]	1.37	1.07	[-3.47, -.74]	.45	.38	[-.30, 1.24]	1.91**	.64	[.65, 3.18]	3.15	3.39	[-3.52, 9.83]
Cluster B * Age	.01	.04	[-.08, .07]	-.03	.03	[-.09, .02]	-.01	.01	[-.01, .03]	-.02	.02	[-.05, .02]	-.06	.09	[-.23, .12]
<i>R</i> ²	.09			.53			.13			.19			.33		
<i>F</i>	14.29**			197.82**			20.69**			31.19**			404.00**		
Cluster C	.12**	.03	[.06, .17]	.22**	.02	[.17, .27]	.04**	.01	[.02, .05]	.07**	.01	[.05, .09]	.54**	.07	[.39, .67]
Age	1.39	1.44	[-1.42, 4.23]	3.05*	1.4	[-5.80, -.29]	.24	.39	[-.52, 1.02]	1.51*	.68	[.18, 2.84]	-.26	3.84	[-7.81, 7.29]
Cluster C * Age	.09	.05	[-.19, .02]	-.11*	.05	[-.20, -.004]	-.002	.01	[-.02, .03]	-.04	.02	[-.09, .01]	-.27	.14	[-.55, .01]
<i>R</i> ²	.05			.17			.05			.08			.13		
<i>F</i>	7.07**			29.32**			8.27**			404.00**			404.00**		
Total Cluster	.06**	.01	[.05, .08]	.12**	.01	[.11, .14]	.02**	.002	[.02, .03]	.04**	.004	[.03, .05]	.29**	.02	[.25, .34]
Age	1.88	1.39	[-.85, 4.61]	-2.07	1.16	[-4.34, .21]	.41	.37	[.31, 1.15]	1.81**	.36	[.57, 3.06]	2.03	3.38	[-4.61, 8.67]
T.Cluster * Age	-.02	.02	[-.05, .02]	-.02	.01	[-.05, .00]	-.01	.004	[-.003, .01]	-.01	.01	[-.03, .01]	-.05	.04	[-.13, .03]
<i>R</i> ²	.13			.44			.16			.21			.34		
<i>F</i>	17.63**			143.16**			27.38**			39.77**			404.00**		
N.DP	.91**	.09	[.74, 1.07]	.67**	.08	[.51, .82]	.15**	.02	[.11, .19]	.41**	.04	[.33, .49]	2.50**	.22	[2.07, 2.94]
Age	.74	1.24	[-1.69, 3.18]	-4.07**	1.39	[-6.81, -1.34]	.07	.38	[-.67, .82]	1.14	.59	[-.02, 2.31]	-2.92	3.42	[-9.66, 3.81]
N.DP* Age	.12	.17	[-.45, .21]	-.26	.15	[-.57, .04]	-.02	.04	[-.10, .06]	-.11	.08	[-.26, .04]	-.68	.44	[-1.55, .19]
<i>R</i> ²	.31			.19			.11			.30			.32		
<i>F</i>	43.81**			27.83**			18.72**			43.79**			50.39**		
N.PA	.67**	.08	[.52, .82]	.94**	.06	[.83, 1.06]	.17**	.02	[.13, .21]	.35**	.03	[.28, .41]	2.53**	.18	[2.17, 2.89]
Age	1.8	1.34	[-.83, 4.44]	2.67*	1.24	[-5.11, -.24]	.34	.37	[-.40, 1.07]	1.69**	.62	[.47, 2.92]	.94	3.37	[-5.68, 7.57]
N.PA* Age	-.35*	.15	[-.66, -.05]	-.39**	.12	[-.63, -.16]	-.01	.04	[-.08, .06]	-.22**	.07	[-.36, -.09]	-1.18**	.37	[-1.91, -.46]
<i>R</i> ²	.19			.35			.14			.24			.34		
<i>F</i>	27.20**			98.80**			24.86**			36.06*			72.42**		

Note. T. Cluster = Total Clusters; N.DP = NOS Depressive; N.PA = NOS Passive Aggressive

* $p < .05$. ** $p < .001$.

Table 62 indicated that for clinical sample age moderated significantly between cluster A and externalizing behavioral problem only accounted for an additional 1 % variance because of interaction. Non-significant moderation of age was apparent in case of internalizing, thought problem, attention problem, and total problem score.

In case of cluster B, age moderated significantly in prediction of internalizing behavioral problems accounting for an additional 1 % variance. Non-significant interaction effect between cluster B and age in prediction of externalizing, thought, attention, and total problem score was evident.

In case of cluster C, age moderated significantly in prediction of externalizing behavioral problems accounting for an additional 1 % variance. Non-significant interaction effect between cluster B and age in prediction of internalizing, thought, attention, and total problem score was evident.

In case of NOS dependent PD, non-significant interaction effect of age was apparent in prediction of internalizing, externalizing, thought, attention, and total problem score.

Significant interaction between age and NOS passive aggressive PD was apparent in case of internalizing and externalizing behavioral problem accounting for an additional 1 % variance in each case. Similarly, an additional 2 % variance was explained in prediction of attention and total problem score because of interaction between age and NOS passive aggressive PD.

In case of total PD (Table 61), non-significant interaction effect of age was apparent in prediction of internalizing, externalizing, thought, attention, and total problem score.

In case of non-clinical sample non-significant interaction effect between each PD cluster and age was apparent in prediction of internalizing, externalizing, thought, attention, and total problem score. Age did not moderate the relation between PD clusters and internalizing, externalizing, thought, attention, and total problem score in case of non-clinical sample.

Moderation graph for Table 62 are represented in Figure 57, 58, 59, 60, 61, and 62 are explained further below:

Examination of the moderating role of age between PDs and syndrome scales ASR indicated that older adults had higher behavioral problems as compared to middle aged

adults. However, middle aged adults had steeper slope for behavioral problems with the increase in PDs indicating that they had higher tendency for behavioral problems as compared to late adults.

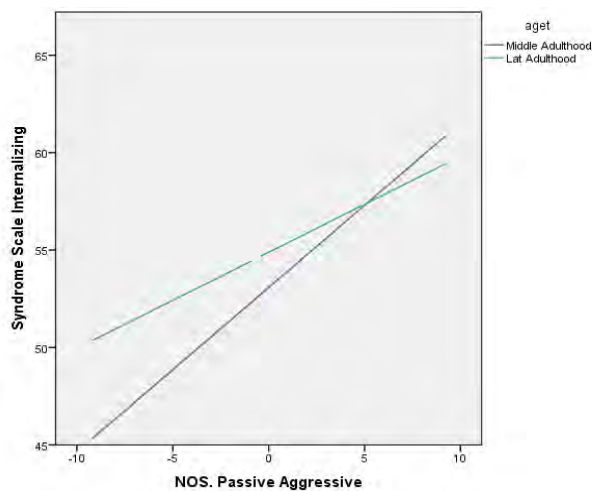


Figure 57. Interaction effect of age between NOS-passive aggressive PD and syndrome scale internalizing behavioral problem among clinical sample

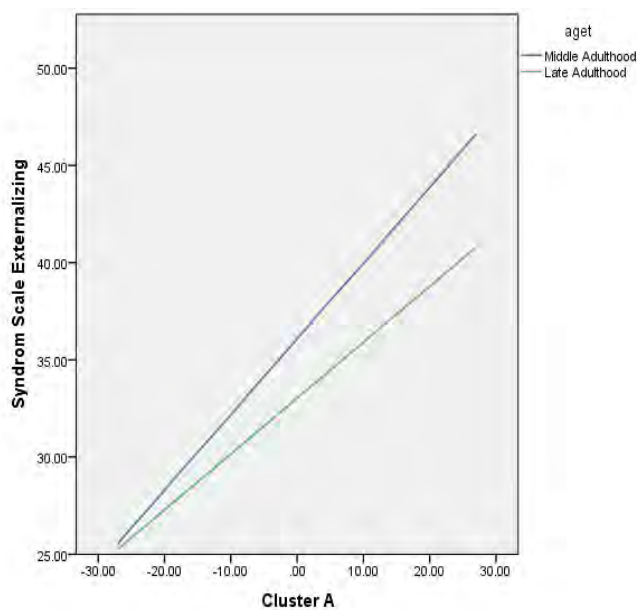


Figure 58. Interaction effect of age between Cluster A PD and syndrome scale externalizing behavioral problem among clinical sample

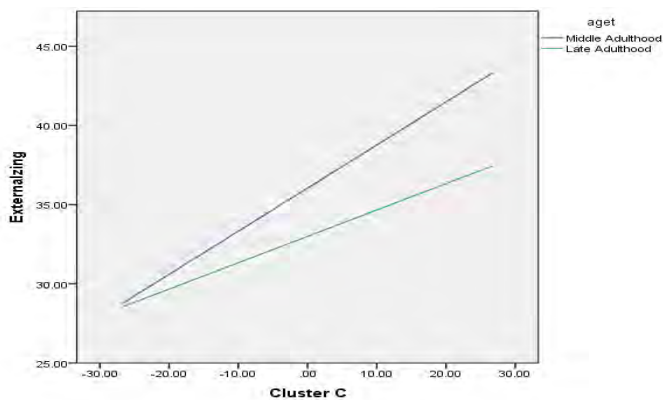


Figure 59. Interaction effect of age between Cluster C PD and syndrome scale externalizing behavioral problem among clinical sample

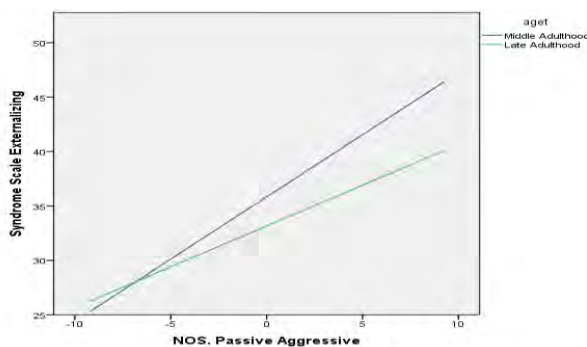


Figure 60. Interaction effect of age between NOS-passive aggressive PD and syndrome scale externalizing behavioral problem among non-clinical sample

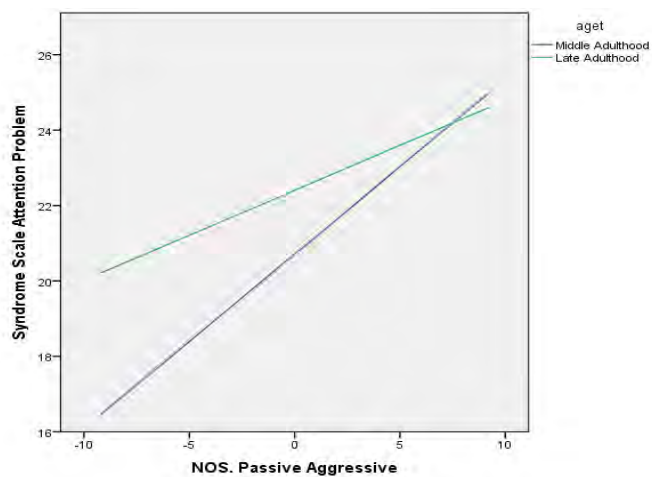


Figure 61. Interaction effect of age between NOS-passive aggressive PD and syndrome scale attention problem among clinical sample

Interaction effect of age and NOS passive aggressive to predict attention problems indicated, as steeper slope for middle aged adults. However, older adults showed higher attention problems at lower NOS passive aggressive scores.

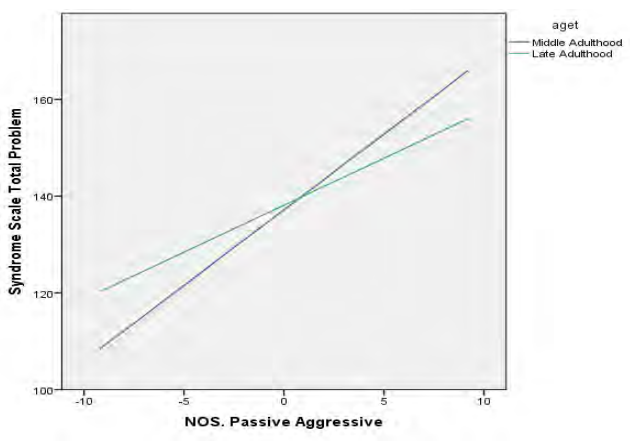


Figure 62. Interaction effect of age between NOS-passive aggressive PD and syndrome scale total problem among clinical sample

Graph depicted that middle-aged adult had higher tendency for total problem score with the increase in NOS passive aggressive scores as compared to older adults.

Table 63
Moderating Role of Age for Relationship between Clusters (A, B, C, NOS Depressive, NOS Passive Aggressive, and Total Clusters) and Internalizing, Externalizing, Thought, Attention, and Total Problem Behavior across Non-Clinical Sample (N = 487)

Predictors	Model 1			Model 2			Model 3			Model 4			Model 5		
	Internalizing			Externalizing			Thought Problem			Attention Problem			Total Problem Behavior		
	B	SE	95%CI	B	SE	95%CI	B	SE	95%CI	B	SE	95%CI	B	SE	95%CI
Cluster A	.29**	.03	[.24, .35]	.14**	.02	[.10, .18]	.04**	.01	[.02, .05]	.09**	.01	[.08, .12]	.68**	.07	[.54, .81]
Age	-1.45	1.09	[-3.61, .70]	-2.39**	.84	[-4.04, -.73]	-.27	.24	[-.75, .20]	-1.01*	.48	[-1.95, -.05]	-6.36*	2.69	[-11.66, -1.05]
Cluster A * Age	.02	.06	[-.09, .13]	.01	.04	[-.07, .09]	-.01	.01	[-.01, .03]	-.03	.03	[-.07, .02]	-.02	.14	[-.25, .30]
R ²	.25			.12			.10			.18			.21		
F	39.88**			24.96**			18.67**			29.51**			39.57**		
Cluster B	.19**	.02	[.15, .23]	.13**	.02	[.10, .16]	.03**	.004	[.02, .04]	.07**	.01	[.05, .09]	.51**	.05	[.41, .61]
Age	-.92	1.13	[-3.13, 1.29]	-1.85*	.82	[-3.46, -.23]	-.18	.25	[-.67, .31]	-.81	.48	[-1.78, .13]	-4.71	2.65	[-9.92, .49]
Cluster B * Age	.07	.04	[-.01, .16]	-.01	.03	[-.05, .08]	-.01	.01	[-.01, .03]	.002	.02	[-.04, .03]	-.11	.10	[-.08, .31]
R ²	.21			.19			.10			.17			-.23		
F	37.52**			33.90**			19.24**			29.37**			43.43**		
Cluster C	.27**	.03	[.22, .32]	.13**	.02	[.09, .17]	.03**	.01	[.02, .04]	.10**	.01	[.08, .12]	.63**	.06	[.51, .76]
Age	1.45	1.07	[-3.56, .65]	-2.42**	.83	[-4.05, -.80]	.31	.24	[-.79, .17]	.95*	.46	[-1.86, -.04]	-6.36*	2.63	[-11.54, -1.18]
Cluster C * Age	-.06	.06	[-.04, .17]	-.01	.04	[-.06, .09]	-.01	.01	[-.01, .03]	-.01	.02	[-.05, .03]	-.09	.12	[-.16, .34]
R ²	.24			.12			.07			.21			.21		
F	42.26**			23.82**			16.43**			40.66**			42.70**		
Total Cluster	.09**	.01	[.08, .11]	.05**	.01	[.04, .07]	.01*	.001	[.01, .02]	.03**	.003	[.03, .04]	.23**	.02	[.19, .28]
Age	-.98	1.07	[-3.09, 1.11]	-2.06*	.82	[-3.69, -.45]	.21	.24	[-.70, .26]	-.83	.47	[-1.76, .09]	-5.12	2.59	[-10.20, -.03]
Total Cluster * Age	-.02	.02	[-.02, .06]	-.001	.01	[-.03, .03]	.22	.004	[-.005, .01]	-.01	.01	[-.02, .01]	.02	.04	[-.06, .11]
R ²	.27			.16			.11			.21			.25		
F	41.31**			29.96**			20.02**			34.91**			43.92**		
N.DP	.79**	.05	[.67, .91]	.38**	.04	[.30, .47]	.06**	.02	[.02, .09]	.23**	.03	[.17, .28]	1.79**	.14	[1.51, 2.07]
Age	2.14*	.98	[-4.08, -.21]	-2.72**	.78	[-4.27, -1.17]	-.50*	.24	[-.98, -.04]	-1.13*	.49	[-2.08, -.17]	-7.98**	2.5	[-12.86, -3.07]
N.DP* Age	.20	.12	[-.03, .43]	.07	.09	[-.11, .26]	.01	.04	[-.07, .09]	.01	.06	[.11, .12]	.34	.27	[-.20, .88]
R ²	.30			.14			.04			.13			.25		
F	75.08**			34.06**			7.80**			25.28**			69.07**		
N.PA	.83**	.08	[.67, .99]	.45**	.06	[.34, .58]	.09**	.02	[.06, .13]	.29**	.03	[.22, .35]	1.98**	.21	[1.57, 2.38]
Age	1.97	1.06	[-4.06, .11]	-2.57**	.79	[-4.14, -1.01]	.38	.25	[-.87, .10]	-1.16*	.46	[-2.07, -.25]	-7.52**	2.61	[-12.66, -2.38]
N.PA* Age	.22	.17	[-.11, .55]	.09	.12	[-.15, .34]	.01	.04	[-.07, .09]	-.04	.07	[-.17, .10]	.33	.41	[-.46, 1.13]
R ²	.24			.15			.07			.18			.22		
F	41.79**			27.74**			10.44**			29.35**			40.60**		

Note. T. Cluster = Total Clusters; N. DP = NOS Depressive; N.PA = NOS Passive Aggressive

* $p < .05$. ** $p < .001$.

Table 64
Group Comparisons for Gender across Clinical (N = 408) and Non-Clinical (N = 487) Sample for all Study Variables

Variables	Clinical (N = 408)						Non-Clinical (N = 487)						Cohen's <i>d</i>	
	Male (n = 235)	Female (n = 173)	<i>t</i> ₍₄₀₆₎	<i>p</i>	95% CI		Cohen's <i>s d</i>	Male (n = 274)	Female (n = 213)	<i>t</i> ₍₄₈₅₎	<i>p</i>	95% CI		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)			<i>LL</i>	<i>UL</i>		<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)			<i>LL</i>		<i>UL</i>
Adult Self Report (ASR) Syndrome Based Subscales														
Anxious Depressed	25.96 (8.36)	28.18 (5.45)	3.04	.00	-3.65	-.78	.31	7.81 (6.44)	8.75 (7.22)	1.48	.13	-2.17	.29	
Withdrawn	12.07 (4.33)	12.52 (3.64)	1.11	.26	-1.23	.32		3.82 (3.20)	3.66 (3.28)	.56	.57	-.41	.74	
Somatic Complaints	14.11 (5.89)	16.03 (4.75)	3.51	.00	-2.98	-.84	.35	3.83 (4.00)	4.31 (4.73)	1.20	.23	-1.28	.30	
Attention Problem	21.37 (7.94)	21.98 (5.70)	.86	.38	-1.94	.78		6.24 (5.18)	6.14 (4.95)	.21	.83	-.80	1.00	
Thought Problem	6.97 (4.24)	6.56 (3.77)	1.01	.31	-.38	1.19		2.22 (2.62)	2.01 (2.86)	.87	.38	-.27	.71	
Aggressive Behavior	20.25 (7.70)	18.15 (5.91)	3.00	.00	.725	3.48	.30	5.72 (4.84)	5.71 (4.78)	.02	.97	-.85	.87	
Rule Breaking	13.20 (7.34)	7.08 (5.00)	9.46	.00	4.85	7.39	.97	3.06 (3.79)	2.66 (3.16)	1.27	.20	-.21	1.02	
Intrusive	5.38 (3.56)	3.67 (2.58)	5.36	.00	1.08	2.34	.55	2.28 (2.14)	2.22 (2.11)	.32	.74	-.31	.44	
Internalizing	52.15 (16.70)	56.74 (11.51)	3.10	.00	-7.48	-1.68	.32	15.47 (11.95)	16.73 (13.08)	1.09	.27	-3.52	1.00	
Externalizing	44.56 (15.31)	28.90 (11.56)	11.28	.00	12.93	18.38	1.15	22.23 (19.43)	10.60 (8.84)	8.10	.00	8.81	14.45	
Total Problem	140.65 (47.20)	134.5 (31.55)	1.48	.13	-1.53	13.81		43.46 (32.32)	43.46 (31.06)	.001	.99	-5.67	5.67	
Adult Behavior Checklist (ABCL) Syndrome Based Subscales														
Anxious Depressed	21.37 (6.57)	23.80 (4.61)	4.18	.00	-3.58	-1.29	.42	6.18 (5.36)	6.88 (5.54)	.141	1.59	-1.68	.27	
Withdrawn	12.14 (4.21)	12.49 (3.25)	.91	.36	-1.07	.37		3.73 (3.35)	3.43 (3.05)	1.04	.29	-.26	.87	
Somatic Complaints	10.42 (4.30)	11.90 (3.21)	3.81	.00	-2.24	-.71	.39	3.38 (3.58)	3.29 (3.66)	.28	.77	-.55	.74	
Thought Problem	6.47 (4.26)	6.41 (3.61)	.16	.86	-.70	.83		6.08 (5.69)	6.03 (5.28)	.09	.92	-.93	1.02	
Attention Problem	24.74 (8.04)	25.09 (5.72)	.49	.62	-1.69	.98		1.75 (2.46)	1.66 (2.98)	.36	.71	-.40	.58	
Aggressive Behavior	22.15 (7.84)	19.64 (6.06)	3.50	.00	1.10	3.91	.35	5.85 (5.10)	5.96 (5.28)	.23	.81	-1.04	.82	
Rule Breaking	12.61 (6.96)	6.09 (4.56)	10.73	.00	5.32	7.71	1.10	2.79 (3.58)	2.69 (3.31)	.32	.74	-.51	.71	
Intrusive	5.67 (3.42)	3.84 (2.52)	5.94	.00	1.22	2.43	.60	2.28 (2.33)	2.28 (2.26)	.03	.97	-.40	.41	
Internalizing	44.01 (13.02)	48.20 (8.98)	3.63	.00	-6.44	-1.92	.37	13.30 (10.46)	13.61 (10.48)	.31	.75	-2.18	1.57	
Externalizing	40.44 (16.22)	29.58 (10.98)	7.61	.00	8.05	13.66	.78	10.93 (9.74)	10.93 (9.57)	.00	.99	-1.73	1.72	
Total Problem	143.40 (44.49)	135.39 (28.89)	2.06	.03	.40	15.62	.21	40.77 (31.86)	41.35 (31.09)	.20	.84	-6.22	5.06	
Assessment of DSM IV Personality Disorders (ADP IV) Questionnaire														
Paranoid	28.23 (11.58)	23.69 (11.28)	3.95	.00	2.28	6.80	.39	19.60 (7.45)	21.07 (8.30)	2.05	.04	-2.87	-.06	
Schizoid	27.85 (9.33)	23.79 (7.87)	4.62	.00	2.33	5.77	.47	19.55 (7.17)	20.39 (7.13)	1.28	.20	-2.11	.44	

Continued.

	Clinical (N = 408)						Non-Clinical (N = 487)						Cohen's <i>d</i>	
	Male (n = 235)	Female (n = 173)	<i>t</i> ₍₉₉₎	<i>p</i>	95% CI		Cohen's <i>d</i>	Male (n = 274)	Female (n = 213)	<i>t</i> ₍₄₈₇₎	<i>p</i>	95% CI		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)			<i>LL</i>	<i>UL</i>		<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)			<i>LL</i>		<i>UL</i>
Schizotypal	33.15 (11.64)	29.47 (9.99)	3.34	.00	1.51	5.83	.33	22.12 (8.53)	22.79 (8.79)	.84	.39	-2.22	.88	
Antisocial	27.16 (11.00)	19.24 (7.83)	8.08	.00	5.99	9.85	.82	16.47 (6.47)	16.39 (6.39)	.13	.89	-1.07	1.23	
Borderline	42.94 (12.07)	39.09 (11.09)	3.29	.00	1.55	6.15	.33	26.48 (10.64)	28.19 (9.60)	1.85	.06	-3.51	.09	
Histrionic	25.83 (9.32)	21.36 (7.49)	5.19	.00	2.77	6.16	.52	20.70 (7.85)	22.14 (7.53)	2.04	.04	-2.83	-.05	.18
Narcissistic	29.46 (11.01)	22.48 (9.14)	6.79	.00	4.96	9.00	.68	26.11 (9.06)	26.83 (8.35)	.89	.37	-2.27	.84	
Avoidant	25.39 (9.58)	21.72 (8.37)	4.02	.00	1.87	5.45	.40	20.22 (7.98)	21.71 (7.95)	2.04	.04	-2.91	-.05	.18
Dependent	29.62 (10.73)	26.08 (8.65)	3.56	.00	1.58	5.49	.36	22.02 (8.78)	23.67 (9.04)	2.03	.04	-3.24	-.05	.19
Obsessive Compulsive	29.54 (11.74)	24.62 (10.49)	4.61	.00	2.82	7.01	.44	26.57 (8.11)	27.07 (8.21)	1.51	.13	-2.59	.33	
NOS. Depressive	28.33 (9.82)	27.93 (7.78)	.44	.65	-1.30	2.12		16.67 (7.94)	17.50 (9.06)	1.05	.29	-2.37	.71	
NOS. Passive Aggressive	27.57 (9.59)	23.97 (8.26)	3.97	.00	1.81	5.38	.40	17.73 (6.69)	18.83 (7.77)	1.64	.09	-2.41	.21	
Cluster A	89.24 (28.08)	76.97 (23.87)	4.64	.00	7.08	17.47	.47	61.28 (20.28)	64.26 (20.98)	1.57	.11	-6.69	.73	
Cluster B	125.42 (36.56)	102.19 (30.03)	6.83	.00	16.54	29.91	.69	89.78 (29.62)	93.57 (27.09)	1.46	.14	-8.85	1.27	
Cluster C	84.56 (28.16)	72.43 (23.00)	4.63	.00	6.98	17.26	.47	68.83 (21.66)	73.09 (22.06)	2.13	.03	-8.18	-.34	.19
Total Clusters	299.22 (83.78)	251.59 (66.24)	6.18	.00	32.48	62.78	.63	219.9 (66.10)	230.9 (65.00)	1.84	.06	-22.81	.74	

Note. Dep. = Depressive; Beh. = Behavior; Comp. = Compulsive; CI = Confidence Interval; LL = Lower Level; UL = Upper Level.

A priori sample estimation was carried out using Gpower (Version 3.1.9.6) with medium effect size, error probability ($\alpha = .05$), and sample power (.95), the adequate sample size was 88. Therefore, both clinical ($N = 408$) and non-clinical samples ($N = 487$) of the present study were enough to test mean difference across study variables.

In order to assess gender differences across ASR, ABCL and ADP IV for both samples *t*-test was carried out. Table 64 indicated that significant mean differences were apparent across narrow band scales of anxious depressed and somatic complaints where females scored higher as compared to males for clinical sample. On narrow band scales of aggressive behavior, rule breaking, and intrusive problems males scored higher as compared to females for clinical sample. On broad band internalizing scale females scored higher as compared to males. On broad band externalizing scale males scored higher as compared to females. Non-significant difference was apparent for total problem behavior across gender on ASR for clinical sample. Similarly, across ABCL for clinical sample significant mean differences were apparent across clinical sample for narrow band scales of anxious depressed, somatic complaints where females scored higher as compared to males. For aggressive behavior, rule breaking, and intrusive behavior males scored higher as compared to females. Across broad band scales for internalizing behavioral problems women scored higher and for externalizing behavioral problems males scored higher. On total problem scores males scored higher than females.

For non-clinical sample in case of ASR, only significant difference was across broad band scale of externalizing behavioral problems. For non-clinical sample across ABCL, non-significant differences were apparent.

Table 64 also indicated that significant mean differences were apparent across all PDs in case of clinical sample where males scored higher as compared to females except for NOS depressive PD where difference was non-significant. Across non-clinical sample significant mean differences were apparent across paranoid, histrionic, avoidant, dependent, and cluster C of personality disorders where females scored higher as compared to males. Non-significant differences were apparent for all other personality disorders.

Table 65
 Group Comparisons for Age across Clinical (N = 408) and Non-Clinical (N = 487) Sample for all Study Variables

Scales	Clinical (N = 408)						Non-Clinical (N = 487)							
	18-35	36-59	<i>t</i> ₍₄₀₆₎	<i>p</i>	95% CI		Cohen's <i>d</i>	18-35	36-59	<i>t</i> ₍₄₈₅₎	<i>p</i>	95% CI		Cohen's <i>d</i>
	(<i>n</i> = 204)	(<i>n</i> = 204)			<i>LL</i>	<i>UL</i>		(<i>n</i> = 349)	(<i>n</i> = 138)			<i>LL</i>	<i>UL</i>	
<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)						<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)				<i>LL</i>	<i>UL</i>	
Adult Self Report (ASR) Syndrome Based Subscales														
Anxious Depressed	26.79 (7.92)	27.01 (6.74)	.29	.76	-1.64	1.21		8.73 (6.92)	6.95 (6.34)	2.60	.00	.43	3.11	.26
Withdrawn	12.20 (4.34)	12.32 (3.76)	.31	.75	-.91	.66		4.03 (3.33)	3.04 (2.86)	3.08	.00	.35	1.62	.31
Somatic Complaints	14.65 (5.71)	11.20 (5.31)	1.00	.31	-1.62	.52		4.10 (4.25)	3.89 (4.57)	.47	.63	-.67	1.10	
Attention Problem	21.02 (7.68)	22.24 (6.37)	1.73	.08	-2.58	.16		6.61 (5.17)	5.15 (4.69)	2.86	.00	.45	2.45	.29
Thought Problem	6.75 (3.97)	6.855 (4.13)	.24	.80	-.88	.69		2.27 (2.89)	1.78 (2.22)	1.80	.07	-.04	1.03	
Aggressive Behavior	20.01 (7.27)	18.71 (6.82)	1.86	.06	-.06	2.67		6.09 (4.88)	4.79 (4.53)	2.69	.00	.34	2.24	.27
Rule Breaking	11.59 (7.77)	9.61 (6.27)	2.83	.00	.60	3.35	.28	3.22 (3.75)	2.04 (2.71)	3.37	.00	.49	1.87	.36
Intrusive	5.00 (3.38)	4.31 (3.17)	2.11	.03	.04	1.32	.21	2.43 (2.19)	1.79 (1.88)	3.01	.00	.22	1.05	.31
Internalizing	53.65 (15.79)	54.54 (13.94)	.60	.54	-3.79	2.00		16.87 (12.54)	13.89 (12.02)	2.39	.01	.53	5.43	.24
Externalizing	36.61 (16.42)	39.23 (15.19)	1.67	.09	-5.69	.46		16.10 (15.38)	19.78 (19.52)	2.19	.02	-6.97	-.39	.20
Total Problem	139.30 (43.99)	136.78 (38.63)	.61	.53	-5.53	10.57		46.25 (32.68)	36.42 (28.14)	3.10	.00	3.60	16.04	.32
Adult Behavior Checklist (ABCL) Syndrome Based Subscales														
Anxious Depressed	22.24 (6.43)	22.56 (5.41)	.55	.57	-1.48	.82		6.90 (5.48)	5.44 (5.23)	2.68	.00	.39	2.53	.27
Withdrawn	12.21 (4.18)	12.36 (3.45)	.38	.69	-.89	.60		3.76 (3.28)	3.19 (3.07)	1.80	.07	-.05	1.19	
Somatic Complaints	10.81 (4.13)	11.27 (3.73)	1.18	.23	-1.22	.30		3.40 (3.62)	3.18 (3.57)	.60	.54	-.49	.93	
Thought Problem	6.56 (4.06)	6.33 (3.93)	.58	.56	-.54	1.00		1.87 (2.91)	1.31 (2.01)	2.09	.03	.03	1.10	.22
Attention Problem	24.76 (7.48)	25.00 (6.81)	.33	.73	-1.63	1.15		6.44 (5.69)	5.09 (4.90)	2.45	.01	.26	2.43	.25
Aggressive Behavior	21.89 (7.25)	20.28 (7.15)	2.25	.02	.20	3.01	.22	6.26 (5.26)	4.97 (4.83)	2.50	.01	.27	2.31	.25
Rule Breaking	10.85 (7.36)	8.84 (6.18)	2.97	.00	.68	3.32	.29	3.08 (3.69)	1.89 (2.66)	3.43	.00	.50	1.86	.36
Intrusive	5.23 (3.23)	7.55 (3.13)	2.14	.03	.05	1.29	.72	2.49 (2.32)	1.76 (2.19)	3.14	.00	.27	1.17	.32
Internalizing	45.27 (12.53)	46.30 (10.71)	.89	.37	-3.30	1.23		14.07 (10.44)	11.82 (10.36)	2.14	.03	.19	4.31	.21
Externalizing	37.98 (15.81)	33.69 (14.28)	2.87	.00	1.35	7.22	.28	11.83 (9.94)	8.63 (8.51)	3.32	.00	1.31	5.09	.34
Total Problem	142.12 (41.38)	137.89 (36.05)	1.10	.27	-3.31	11.78		43.76 (32.54)	34.10 (27.61)	3.07	.00	3.48	15.82	.32
Assessment of DSM IV Personality Disorders (ADP IV) Questionnaire														
Paranoid	27.19 (11.49)	25.43 (11.79)	1.52	.12	-.50	4.02		20.48 (7.59)	19.65 (8.50)	.99	.31	-.72	2.38	
Schizoid	26.45 (9.07)	25.80 (8.85)	.72	.46	-1.09	2.39		20.52 (6.92)	18.41 (7.54)	2.95	.00	.70	3.51	.26

Continued.

Scales	Clinical (N = 408)						Non-Clinical (N = 487)						Cohen's <i>d</i>	
	18-35	36-59	<i>t</i> ₍₄₀₈₎	<i>p</i>	95% CI		Cohen's <i>d</i>	18-35	36-59	<i>t</i> ₍₄₈₇₎	<i>p</i>	95% CI		
	(<i>n</i> = 204)	(<i>n</i> = 204)			LL	UL		(<i>n</i> = 349)	(<i>n</i> = 138)			LL		UL
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)										
Schizotypal	31.75 (11.73)	31.44 (10.47)	.28	.77	-1.85	2.47	.23	23.02 (8.47)	20.91(8.92)	2.43	.01	.40	3.80	.24
Antisocial	25.52 (11.49)	22.08 (9.16)	3.34	.00	1.42	5.47	.33	16.95 (6.55)	15.15 (5.94)	2.70	.00	.52	3.05	.28
Borderline	41.83 (12.55)	40.79 (11.02)	.88	.37	-1.26	3.33		28.12 (10.04)	24.98 (10.36)	3.08	.00	1.13	5.14	0.30
Histrionic	24.65 (9.30)	23.23 (8.36)	1.62	.10	-.29	3.14		21.95 (7.85)	19.76 (7.25)	2.82	.00	.66	3.70	.32
Narcissistic	27.79 (11.27)	25.22 (10.20)	2.40	.01	.47	4.65	.23	27.00 (8.43)	24.97 (9.41)	2.30	.02	.30	3.74	.25
Avoidant	24.73 (9.48)	22.94 (8.95)	1.95	.05	-.00	3.58		21.62 (7.70)	19.00 (8.45)	3.29	.00	1.05	4.18	.24
Dependent	28.67 (10.73)	27.56 (9.71)	1.10	.26	-.85	3.05		23.39 (8.85)	21.11 (8.92)	2.55	.01	.52	4.03	.25
Obsessive Compulsive	28.11 (11.07)	26.79 (10.70)	1.22	.22	-.80	3.43		27.13 (7.86)	26.89 (8.93)	.27	.78	-1.47	1.95	
NOS. Depressive	28.08 (9.69)	28.24 (8.27)	.18	.85	-1.91	1.59		17.30 (8.41)	16.35 (8.55)	1.10	.26	-.73	2.63	
NOS. Passive Aggressive	26.73 (9.35)	25.36 (9.04)	1.50	.13	-.42	3.15		18.52 (7.21)	17.44 (7.11)	1.50	.13	-.33	2.49	
Cluster A	85.40 (27.95)	82.68 (26.09)	1.01	.31	-2.5	7.98		64.02 (19.86)	58.97 (22.10)	2.44	.02	.98	9.09	.24
Cluster B	119.80 (38.27)	111.33 (32.69)	2.40	.01	1.54	15.40	.23	94.03 (28.24)	84.89 (28.48)	3.21	.00	3.54	14.73	.31
Cluster C	81.52 (27.51)	77.31 (25.86)	1.59	.11	-.98	9.40		72.15 (21.17)	67.01 (23.36)	2.34	.02	.82	9.45	.23
Total Clusters	286.73 (85.16)	271.32 (74.63)	1.94	.05	-.18	30.99		230.20 (63.59)	210.88 (69.35)	2.94	.00	6.42	32.21	.29

In order to assess differences across age for ASR, ABCL and ADP IV *t*-test was carried out. Table 65 indicated that significant mean differences were apparent only across narrow band scale of intrusive behavior problem and rule breaking where individuals from early adulthood scored higher as compared to individuals from late adulthood for clinical sample. Across ABCL, for clinical sample significant mean differences were apparent across narrow band scales of rule breaking, aggressive behavior and intrusive behavioral problem. For broad band scales significant mean differences were apparent across externalizing behavioral problem where individuals from early adulthood scored higher as compared to individuals from late adulthood. Non-significant differences were apparent across all other syndrome-based scales.

For non-clinical sample across narrow band scales of ASR significant mean differences were apparent across anxious depressed, withdrawn, attention problem, aggressive behavior, rule breaking, and intrusive behavioral problems where early adults scored higher as compared to late adults. For broad band scales both internalizing and externalizing behavioral problems individuals in early adulthood scored higher as compared to individuals in late adulthood. For total problem score as well individuals in early adulthood scored higher as compared to individuals in late adulthood. In case of ABCL (non-clinical) except for withdrawn problems, trend similar as ASR is apparent with problem behaviors being more prevalent in early adulthood.

In order to assess differences across age for ADP IV in case of clinical sample findings indicated that significant mean differences were apparent across anti-social, narcissistic, and cluster B PDs where individuals from early adulthood scored higher as compared to individuals from late adulthood. In case of non-clinical sample significant mean differences were apparent for schizoid, schizotypal, anti-social, borderline, histrionic, narcissistic, avoidant, dependent, cluster A, B, C, and total cluster where individuals in early adulthood scored higher as compared to individuals in late adulthood.

In order to assess gender differences across adaptive functioning scales *t* test was carried out.

Table 66
Group Comparisons for Gender across ASR Adaptive Functioning of Clinical (N = 408) and Non-Clinical (N = 487) Sample

Scale	Male	<i>n</i>	Female	<i>N</i>	<i>t</i> (<i>n</i>)	<i>p</i>	95 % CI		Cohen's <i>d</i>
	<i>M</i> (<i>SD</i>)		<i>M</i> (<i>SD</i>)				<i>LL</i>	<i>UP</i>	
Clinical									
Friends	31.50 (12.96)	235	25.27 (9.35)	173	5.37	.00	3.95	8.51	.55
Spouse	43.80 (15.16)	144	41.23 (15.29)	136	1.41	.15	-1.01	6.15	
Job	35.34 (13.08)	96	37.75 (11.33)	8	.50	.61	-12.02	7.21	
Education	36.13 (10.76)	8	36.71 (15.08)	7	.08	.93	-15.72	14.54	
Family	43.42 (13.38)	235	46.80 (13.80)	173	2.48	.01	-6.04	-.70	.24
Total Adaptive	38.21 (9.83)	235	37.15 (9.28)	173	1.10	.27	-.81	2.93	
Non-Clinical									
Friends	48.49 (9.51)	274	45.14 (9.64)	213	3.83	.00	1.63	5.06	.00
Spouse	48.41 (10.36)	133	45.14 (11.09)	96	2.29	.02	.46	6.09	.30
Job	47.89 (8.64)	206	44.88 (10.79)	97	2.60	.01	.73	5.28	.30
Education	44.06 (10.73)	112	45.43 (9.99)	47	.74	.45	-4.89	2.16	
Family	52.90 (7.74)	274	52.94 (8.55)	213	.04	.96	-1.50	1.43	
Total Adaptive	48.78 (6.82)	274	48.14 (7.36)	213	.99	.32	-.63	1.92	

Table 66 indicated that significant mean differences were apparent across gender for clinical sample on ASR adaptive functioning subscale of friends where males scored higher and family functioning where females scored higher. Non-significant differences were apparent across all other subscales. Across non-clinical sample males scored higher on subscales of friends, spousal relationship, and job in comparison to females. All other differences were non-significant.

Comparisons were made across age for adaptive functioning across both samples. Non-significant differences were apparent.

In order to assess mean differences across study variables for individuals who reported of attempts of suicide *t* test was carried out across both samples.

Table 67

Group Comparisons across Attempts of Suicide for ASR, ABCL and ADP IV of Clinical (N = 408) and Non-Clinical (N = 487) Sample

Scale	No (n = 249)		Yes (n = 159)		<i>t</i> ₍₄₀₆₎	<i>p</i>	95 % CI		Cohen's <i>d</i>	No (n = 435)		Yes (n = 52)		<i>t</i> ₍₄₈₅₎	<i>p</i>	95 % CI		Cohen's <i>d</i>	
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>LL</i>	<i>UL</i>			<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)		<i>LL</i>	<i>UL</i>								
ASR Clinical										ASR Non-Clinical									
Anxious Depressed	25.43 (7.81)	29.21 (5.86)	5.28	.00	-5.20	-2.35	.54	7.54 (6.26)	13.98 (8.33)	6.73	.00	-8.31	-4.56	.87					
Withdrawn	11.31 (4.19)	13.74 (3.33)	6.16	.00	-3.20	-1.65	.64	3.49 (3.12)	5.94 (3.32)	5.29	.00	-3.35	-1.53	.76					
Somatic Complaints	14.22 (5.69)	16.04 (5.05)	3.29	.001	-2.91	-.73	.33	3.72 (3.97)	6.75 (6.10)	4.86	.00	-4.25	-1.80	.58					
Attention Problem	20.25 (7.67)	23.79 (5.37)	5.08	.001	-4.91	-2.17	.53	5.74 (4.81)	10.03 (5.61)	5.96	.00	-5.71	-2.88	.82					
Thought Problem	5.60 (3.75)	8.67 (3.77)	8.03	.00	-3.82	-2.32	.81	1.69 (2.17)	5.86 (3.85)	11.81	.00	-4.86	-3.47	1.40					
Aggressive Behavior	17.38 (6.98)	22.45 (6.03)	7.51	.00	-6.38	-3.73	.77	5.23 (4.36)	9.84 (6.26)	6.82	.00	-5.94	-3.28	.85					
Rule Breaking	8.13 (6.02)	14.47 (7.01)	9.71	.00	-7.62	-5.05	.97	2.40 (2.86)	6.98 (5.50)	9.62	.00	-5.51	-3.64	1.04					
Intrusive	3.66 (2.86)	6.21 (3.33)	8.22	.00	-3.16	-1.94	.82	2.06 (2.00)	3.82 (2.49)	5.80	.00	-2.35	-1.16	.77					
Internalizing	50.97 (15.64)	59.00 (12.13)	5.50	.00	-10.90	-5.16	.57	14.75 (11.42)	26.67 (15.48)	6.81	.00	-15.35	-8.48	.88					
Externalizing	33.89 (15.51)	44.22 (14.29)	6.76	.00	-13.33	-7.32	.69	16.23 (16.67)	24.80 (15.24)	3.53	.00	-13.33	-3.80	.53					
Total	124.81 (40.56)	158.7 (33.43)	8.81	.00	-41.52	-26.68	.91	39.45 (27.81)	77.00 (41.67)	8.64	.00	-46.06	-29.01	1.06					
ABCL Clinical										ABCL Non-Clinical									
Anxious Depressed	21.60 (6.53)	23.66 (4.60)	3.45	.00	-3.22	-.88	.36	6.06 (5.23)	10.07 (5.97)	5.14	.00	-5.54	-2.48	1.78					
Withdrawn	11.22 (4.02)	13.95 (2.80)	7.47	.00	-3.44	-2.01	.78	3.36 (3.13)	5.57 (3.36)	4.76	.00	-3.12	-1.29	.68					
Somatic Complaints	10.88 (4.13)	11.30 (3.62)	1.03	.30	-1.17	.35		3.00 (3.34)	6.17 (4.45)	6.20	.00	-4.16	-2.16	.80					
Attention Problem	5.38 (3.75)	8.10 (3.80)	7.09	.00	-3.47	-1.96	.72	1.39 (2.34)	4.44 (3.80)	8.19	.00	-3.78	-2.31	.96					
Thought Problem	23.16 (7.94)	27.58 (4.52)	6.37	.00	-5.77	-3.05	.68	5.59 (5.18)	10.01 (6.54)	5.64	.00	-5.96	-2.88	.74					
Aggressive Behavior	18.89 (7.17)	24.52 (5.91)	8.26	.00	-6.96	-4.28	.85	5.42 (4.91)	9.86 (5.68)	6.05	.00	-5.88	-2.99	.83					
Rule Breaking	7.65 (5.81)	13.28 (6.99)	8.79	.00	-6.88	-4.36	.87	2.38 (3.11)	5.80 (4.63)	7.06	.00	-4.37	-2.47	.86					
Intrusive	4.03 (2.99)	6.25 (3.04)	7.24	.00	-2.82	-1.61	.73	2.06 (2.17)	4.11 (2.57)	6.29	.00	-2.68	-1.40	.86					
Internalizing	43.71 (12.87)	49.04 (8.52)	4.61	.00	-7.59	-3.05	.48	12.43 (9.93)	21.82 (11.09)	6.35	.00	-12.55	-6.48	.89					
Externalizing	30.59 (13.75)	44.06 (13.68)	9.66	.00	-16.21	-10.73	.98	9.87 (8.85)	19.78 (11.54)	7.36	.00	-12.55	-7.26	.01					
Total	127.17 (39.07)	160.1 (28.62)	9.17	.00	-39.98	-25.87	.96	37.55 (28.96)	70.09 (36.73)	7.42	.00	-41.15	-23.92	.98					
ADP IV Clinical										ADP IV Non-Clinical									
Paranoid	23.85 (11.56)	30.15 (10.77)	5.51	.00	-8.54	-4.05	.56	20.01 (7.75)	22.19 (8.57)	1.74	.06	-4.66	.31						
Schizoid	24.26 (9.00)	29.06 (8.09)	5.46	.00	-6.53	-3.07	.56	19.79 (7.16)	21.03 (7.09)	1.19	.23	-3.32	.83						
Schizotypal	29.49 (11.17)	34.89 (10.20)	4.92	.00	-7.55	-3.24	.50	22.08 (8.64)	25.21 (8.23)	2.47	.01	-5.60	-.64	.37					
Antisocial	20.53 (9.56)	28.93 (9.93)	8.51	.00	-10.33	-6.45	.86	16.11 (6.36)	19.15 (6.37)	3.24	.00	-4.87	-1.19	.47					
Borderline	37.01 (10.77)	48.04(10.11)	10.32	.00	-13.12	-8.92	1.05	26.59 (9.76)	32.63 (12.31)	4.09	.00	-8.94	-3.14	.54					
Histrionic	22.04 (8.50)	26.92 (8.60)	5.63	.00	-6.58	-3.17	.57	20.97 (7.60)	24.36 (8.34)	3.01	.00	-5.61	-1.18	.42					
Narcissistic	24.14 (10.95)	30.21 (9.50)	5.74	.00	-8.15	-3.99	.59	26.03 (8.68)	29.62 (8.83)	2.86	.00	-6.16	-1.14	.41					
Avoidant	22.38 (9.09)	26.11 (9.08)	4.03	.00	-5.53	-1.90	.41	20.74 (8.10)	22.01 (7.02)	1.21	.27	-3.36	.81						
Dependent	26.58 (10.05)	30.52 (9.59)	3.92	.00	-5.90	-1.96	.40	22.27 (8.68)	26.71 (9.97)	3.42	.00	-6.98	-1.89	.47					
OB.C	25.10 (10.48)	31.13 (10.54)	5.65	.00	-8.12	-3.93	.57	26.96 (8.06)	27.94 (9.04)	.74	.41	-3.33	1.64						
Nos-Dep	26.80 (8.98)	30.29 (8.63)	3.88	.00	-5.25	-1.72	.39	16.54 (8.19)	21.15 (9.51)	3.76	.00	-7.01	-2.20	.51					
Nos-PA	23.76 (8.78)	29.62 (8.74)	6.58	.00	-7.61	-4.11	.66	17.81 (7.02)	21.61 (7.77)	3.64	.00	-5.85	-1.75	.51					
Cluster A	77.61 (27.41)	94.11 (23.15)	6.29	.00	-21.66	-11.34	.65	61.89 (20.60)	68.44 (20.11)	2.17	.03	-12.47	-.62	.32					
Cluster B	103.73 (34.23)	134.11 (29.9)	9.17	.00	-36.89	-23.87	.94	89.71 (27.84)	105.84 (30.79)	3.90	.00	-24.24	-8.00	.54					
Cluster C	74.08 (26.32)	87.77 (25.31)	5.19	.00	-18.86	-8.51	.53	69.98 (21.70)	76.67 (23.00)	2.08	.03	-12.98	-.39	.29					
Total Clusters	255.42 (79.27)	316.00 (67.17)	7.97	.00	-75.50	-45.64	.82	221.59 (64.81)	250.96 (68.63)	3.06	.00	-48.17	-10.56	.44					

Note. OB.C = Obsessive Compulsive; NOS.Dep = Not otherwise specified depressive; NOS-PA = Not otherwise specified passive aggressive

Table 67 indicated that individuals who reported of attempting suicide scored high on all the broad and narrow band scales of ASR syndrome-based scales as compared to those who did not attempt suicide for both samples. Similar trend was apparent for ABCL and ADP IV across both samples.

In order to assess differences on adaptive functioning across individuals who attempted suicide and those who have not attempted suicide t test was carried out.

Table 68

t test across Attempts of Suicide for ASR Adaptive Functioning of Clinical Sample (N = 408)

Scale	No		Yes		$t_{(06)}$	p	95 % CI		Cohen's d
	$M(SD)$	n	$M(SD)$	n			LL	UP	
Fiends	29.29 (12.34)	249	28.19 (11.35)	159	.89	.37	-1.25	3.43	
Spouse	43.16 (15.42)	174	41.56 (14.99)	106	.85	.39	-2.08	5.27	
Job	36.59 (12.73)	96	33.43 (13.22)	35	1.18	.24	-2.24	8.57	
Education	37.56 (13.32)	9	34.67 (12.06)	6	.42	.67	-11.60	17.38	
Family	46.40 (13.17)	249	42.44 (14.06)	159	2.88	.00	1.26	6.66	.29
Total Adaptive	38.59 (9.54)	249	36.45 (9.62)	159	2.20	.02	.233	4.05	.22

Table 68 indicated that significant mean differences were apparent for adaptive functioning subscales of family and total adaptive functioning where individuals who did not attempt suicide scored higher as compared to those who attempted suicide.

A priori sample estimation was carried out using Gpower (Version 3.1.9.6) with medium effect size, error probability ($\alpha = .05$), and sample power (.95), the adequate sample size was 216 ($n = 36$ per group) to test mean differences across groups. Therefore, both clinical ($N = 408$) and non-clinical samples ($N = 487$) of the present study were enough to test differences across both samples.

In order to assess mean differences across education for ASR syndrome-based scale ANOVA was carried out.

Table 69

Mean Differences in ASR Syndrome based Scales across Education on Clinical Sample (N = 408)

Scale	Illiterate (n = 72)	Primary (n = 73)	Matric (n = 96)	Inter (n = 58)	Bachelor (n = 53)	Masters & Above (n = 56)	F	i-j	Mean D (i-j)	SE	95 % CI	
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	UL
Somatic	16.08 (4.83)	16.42 (4.78)	14.15 (5.67)	14.55 (6.30)	13.38 (6.50)	14.71 (4.52)	3.08*	Illiterate > Primary	-3.41	.91	-2.12	1.43
								Illiterate > Matric*	1.94*	.85	2.67	3.61
								Illiterate > Intermediate	1.53	.96	-.36	3.42
								Illiterate > Bachelors*	2.71*	.99	.77	4.64
								Illiterate > Masters & Above	1.37	.97	-.54	3.28
								Primary > Matric*	2.28*	.85	.62	3.94
								Primary > Intermediate	1.87	.96	-.01	3.76
								Primary > Bachelors*	3.05*	.98	1.11	4.98
								Primary > Masters & Above	1.71	.97	-.19	3.61
								Matric < Intermediate	-4.06	.91	-2.19	1.38
								Matric > Bachelors	7.68	.33	-1.06	2.6
								Matric < Masters & Above	-.57	.92	-2.37	1.23
								Intermediate > Bachelors	1.17	1.04	-.86	3.21
								Intermediate < Masters & Above	-.16	1.02	-2.17	1.84
Bachelors < Masters & Above	-1.34	1.04	-3.39	.72								
Attention Problem	22.93 (4.55)	23.60 (6.99)	20.13 (7.96)	21.55 (7.95)	20.00 (7.85)	21.63 (5.77)	3.13*	Illiterate < Primary	-.67	1.16	-.295	1.61
								Illiterate > Matric*	2.81*	1.1	.66	4.94
								Illiterate > Intermediate	1.38	1.23	-1.04	3.8
								Illiterate > Bachelors*	2.93*	1.26	.44	5.41
								Illiterate > Masters & Above	1.31	1.25	-1.14	3.75
								Primary > Matric*	3.48*	1.09	1.344	5.61
								Primary > Intermediate	2.05	1.23	-.37	4.47
								Primary > Bachelors*	3.60*	1.26	1.12	6.08
								Primary > Masters & Above	1.98	1.24	-.46	4.42
								Matric < Intermediate	-1.43	1.16	-3.71	.86
								Matric > Bachelors	.13	1.2	-2.23	2.48
								Matric < Masters & Above	-1.5	1.18	-3.81	.81
								Intermediate > Bachelors	1.55	1.33	-1.06	4.16
								Intermediate < Masters & above	-.07	1.31	-2.65	2.5
Bachelors < Masters & Above	-1.63	1.34	-1.01	4.26								

Scale	Illiterate (<i>n</i> = 72)	Primary (<i>n</i> = 73)	Matric (<i>n</i> = 96)	Inter (<i>n</i> = 58)	Bachelor (<i>n</i> = 53)	Masters & Above (<i>n</i> = 56)	<i>F</i>	<i>i-j</i>	Mean D (<i>i-j</i>)	<i>SE</i>	95 % <i>CI</i>	
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>					LL	UL
Internalizing Problem	56.38 (10.94)	57.95 (12.59)	50.90 (16.04)	53.74 (16.98)	51.40 (19.31)	54.61 (11.43)	2.62*	Illiterate > Primary	-1.57	2.45	-6.38	3.24
								Illiterate > Matric*	5.48*	2.3	.96	9.99
								Illiterate > Intermediate	2.63	2.6	-2.48	7.75
								Illiterate > Bachelors	4.98	2.67	-.27	10.22
								Illiterate > Masters & Above	1.77	2.63	-3.4	6.93
								Primary > Matric*	7.05*	2.29	2.55	11.55
								Primary > Intermediate	4.2	2.59	-.89	9.3
								Primary > Bachelors*	6.55*	2.66	1.32	11.78
								Primary > Masters & Above	3.34	2.62	-1.81	8.49
								Matric < Intermediate	-2.85	2.45	-7.67	1.97
								Matric < Bachelors	-.50	2.52	-5.46	4.46
								Matric < Masters & Above	-3.71	2.48	-8.58	1.16
								Intermediate > Bachelors	2.35	2.8	-3.16	7.85
								Intermediate < Masters & Above	-.87	2.76	-6.3	4.56
Bachelors < Masters & Above	-3.21	2.83	-8.77	2.34								

p* < .05. *p* < .001.

Table 69 indicated that significant mean differences were apparent between illiterate and group having matriculation level of education on somatic complaints where illiterate scored higher on it. Similarly, significant differences were also evident between Illiterate and group having bachelor's education level where again illiterate group scored higher on somatic complaints. Similarly, significant mean differences were apparent on group having primary and matric level of education where individuals having primary education scored higher on somatic complaints. In addition to it, significant differences were also apparent across groups having primary and bachelors' level of education where group with primary education scored higher on somatic complaints.

Significant differences were apparent between group having illiterate and group having matric level of education on attention problems where illiterate group scored higher. Similarly, significant differences were also evident between illiterate and individuals having bachelors' level of education where illiterate group scored higher on attention problems. Similarly, group differences were apparent between groups having primary, matric and bachelors' level of education across attention problems where group with primary level of education scored higher on Attention problems.

For internalizing problems significant differences were apparent between illiterate and group having matriculation education where illiterate group scored higher. Additionally, group differences are also apparent on groups having primary and matric level of education where group having primary education scored higher. Similar pattern was apparent between Primary and bachelors' group where again group with primary education level scored higher.

Table 70 indicates that illiterate group scored higher on all narrow and broad band scales as compared to individuals with primary, matric, intermediate and bachelors' level of education. For overall problem score as well, illiterate group scored higher as compared to individuals with primary, matric, intermediate and bachelors' level of education.

Table 70

Mean Differences in ASR Syndrome based Scales across Education on Non-Clinical Sample (N = 487)

Scale	Illiterate (n = 109)	Primary (n = 53)	Matric (n = 134)	Inter (n = 82)	Bachelor (n = 72)	Masters & Above (n = 37)	F	i-j	Mean D (i-j)	SE	95 % CI	
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	UL
Anxious Depressed	13.15 (8.00)	7.64 (6.62)	6.69 (5.10)	7.48 (6.68)	5.68 (5.00)	6.78 (5.05)	18.09**	Illiterate > Primary*	5.51*	1.05	3.44	7.57
								Illiterate > Matric*	6.46*	.81	4.87	8.05
								Illiterate > Intermediate*	5.67*	.92	3.87	7.47
								Illiterate > Bachelors*	7.47*	.95	5.59	9.34
								Illiterate > Masters & Above*	6.36*	1.19	4.02	8.71
								Primary < Illiterate*	-5.51*	1.05	-7.57	-3.44
								Matric < Illiterate*	-6.46*	.81	-8.05	-4.87
								Intermediate < Illiterate*	-5.67*	.92	-7.48	-3.87
								Bachelors < Illiterate*	-7.47*	.95	-9.34	-5.59
								Masters & Above < Illiterate*	-6.36*	1.19	-8.71	-4.02
Withdrawn	5.92 (3.76)	3.45 (2.76)	3.19 (2.52)	3.33 (3.20)	2.39 (2.77)	3.46 (2.58)	15.57**	Illiterate > Primary*	2.46*	.51	1.47	3.46
								Illiterate > Matric*	2.72*	.39	1.96	3.49
								Illiterate > Intermediate*	2.59*	.44	1.72	3.46
								Illiterate > Bachelors*	3.53*	.46	2.63	4.43
								Illiterate > Masters & Above*	2.46*	.57	1.33	3.59
								Primary < Illiterate*	-2.46*	.51	-3.46	-1.47
								Matric < Illiterate*	-2.72*	.39	-3.49	-1.96
								Intermediate < Illiterate*	-2.59*	.44	-3.46	-1.72
								Bachelors < Illiterate*	-3.53*	.46	-4.43	-2.63
								Masters & Above < Illiterate*	-2.46*	.57	-3.59	-1.33
Somatic complaints	6.32 (5.69)	3.89 (3.69)	3.31 (3.38)	3.95 (4.08)	2.44 (3.07)	3.54 (4.07)	9.61**	Illiterate > Primary*	2.43*	.69	1.06	3.80
								Illiterate > Matric*	3.01*	.54	1.95	4.06
								Illiterate > Intermediate*	2.37*	.61	1.17	3.57
								Illiterate > Bachelors*	3.88*	.63	2.63	5.12
								Illiterate > Masters & Above*	2.78*	.79	1.22	4.34
								Primary < Illiterate*	-2.43*	.69	-3.80	-1.06
								Matric < Illiterate*	-3.01*	.54	-4.06	-1.95
								Intermediate < Illiterate*	-2.37*	.61	-3.57	-1.17
								Intermediate > Bachelors*	1.51*	.67	.19	2.83
								Bachelors < Illiterate*	-3.88*	.63	-5.12	-2.63
Bachelors < Intermediate*	-1.51*	.67	-2.83	-1.19								
Masters & Above < Illiterate*	-2.78*	.79	-4.34	-1.22								

Scale	Illiterate (n = 109)	Primary (n = 53)	Matric (n = 134)	Inter (n = 82)	Bachelor (n = 72)	Masters & Above (n = 37)	F	i-j	Mean D (i-j)	SE	95 % CI		
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	LL	
Attention Problem	9.74 (5.60)	5.96 (5.45)	4.90 (3.69)	6.24 (5.32)	3.69 (3.37)	5.59 (4.23)	18.93**						
								Illiterate > Primary*	3.78*	.78	2.24	5.32	
								Illiterate > Matric*	4.84*	.60	3.66	6.02	
								Illiterate > Intermediate*	3.49*	.68	2.16	4.84	
								Illiterate > Bachelors*	6.05*	.71	4.66	7.44	
								Illiterate > Masters & Above*	4.15*	.89	2.40	5.89	
								Primary < Illiterate*	-3.78*	.78	-5.32	-2.24	
								Primary > Bachelors*	2.27*	.84	.61	3.93	
								Matric < Illiterate*	-4.84*	.60	-6.02	-3.66	
								Matric < Intermediate*	-1.34*	.65	-2.63	-.05	
								Intermediate < Illiterate*	-3.49*	.68	-4.84	-2.16	
								Intermediate > Matric*	1.34*	.65	.05	2.62	
								Intermediate > Bachelors*	2.55*	.75	1.07	4.03	
								Bachelors < Illiterate*	-6.05*	.71	-7.44	-4.66	
								Bachelors < Primary*	-2.27*	.84	-3.93	-.61	
Bachelors < Intermediate*	-2.55*	.75	-4.03	-1.07									
Bachelors < Masters & Above*	-1.90*	.94	-3.76	-.04									
Masters & Above < Illiterate*	-4.14*	.89	-5.89	-2.40									
Masters & Above > Bachelors*	1.90*	.94	.04	3.76									
Thought problem	3.79 (3.67)	2.41 (2.84)	1.28 (1.76)	1.89 (2.22)	1.32 (2.11)	2.08 (2.15)	13.86**						
								Illiterate > Primary*	1.38*	.43	.54	2.23	
								Illiterate > Matric*	2.51*	.33	1.86	3.16	
								Illiterate > Intermediate*	1.91*	.37	1.17	3.24	
								Illiterate > Bachelors*	2.47*	.389	1.71	3.24	
								Illiterate > Masters & Above*	1.71*	.49	.76	2.68	
								Primary < Illiterate*	-1.38*	.43	.54	2.23	
								Primary > Matric*	1.13*	.42	.31	1.95	
								Primary > Bachelors*	1.10*	.46	.18	2.01	
								Matric < Illiterate*	-2.51*	.33	-3.16	-1.86	
								Matric < Primary*	-1.13*	.42	-1.95	-.31	
								Intermediate < Illiterate*	-1.91*	.37	-2.64	-1.17	
								Bachelors < Illiterate*	-2.48*	.39	-3.24	-1.71	
								Bachelors < Primary*	-1.10*	.46	-2.01	-.18	
								Masters & Above < Illiterate*	-1.72*	.49	-2.68	-.76	
Aggressive behavior	8.71 (5.62)	5.41 (4.37)	4.76 (3.72)	5.46 (4.99)	3.79 (3.36)	5.21 (4.74)	13.45**						
								Illiterate > Primary*	3.29*	.76	1.79	4.78	
								Illiterate > Matric*	3.95*	.58	2.79	5.10	
								Illiterate > Intermediate*	3.24*	.66	1.94	4.55	
								Illiterate > Bachelors*	4.91*	.69	3.56	6.27	
Illiterate > Masters & Above*	3.49*	.86	1.79	5.19									

Scale	Illiterate (n = 109)	Primary (n = 53)	Matric (n = 134)	Inter (n = 82)	Bachelor (n = 72)	Masters & Above (n = 37)	F	i-j	Mean D (i-j)	SE	95 % CI		
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	LL	
Rule breaking behavior	4.76 (4.59)	2.53 (4.15)	2.34 (2.58)	2.66 (3.15)	1.93 (2.31)	2.32 (2.98)	8.87**		Primary < Illiterate*	-3.29*	.76	-4.78	-1.79
									Primary > Bachelors*	1.62*	.82	.01	3.23
									Matric < Illiterate*	-3.95*	.76	-4.78	-1.79
									Intermediate < Illiterate*	-3.24*	.66	-4.55	-1.94
									Intermediate > Bachelors*	1.67*	.73	.23	3.11
									Bachelors < Illiterate*	-4.91*	.69	-6.27	-3.56
									Bachelors < Primary*	-1.62*	.82	-3.23	-.01
									Bachelors < Intermediate*	-1.67*	.73	-3.11	-.23
									Masters & Above < Illiterate*	-3.49*	.86	-5.19	-1.79
									Illiterate > Primary*	2.23*	.57	1.11	3.35
									Illiterate > Matric*	2.43*	.44	1.56	3.29
									Illiterate > Intermediate*	2.10*	.49	1.13	3.08
									Illiterate > Bachelors*	2.83*	.51	1.82	3.85
									Illiterate > Masters & Above*	2.44*	.65	1.17	3.71
Intrusive	3.10 (2.40)	1.87 (2.01)	2.27 (1.94)	1.87 (1.94)	1.83 (2.08)	1.95 (2.04)	5.23**		Primary < Illiterate*	-2.23*	.57	-3.35	-1.11
									Matric < Illiterate*	-2.43*	.44	-3.29	-1.56
									Intermediate < Illiterate*	-2.10*	.49	-3.08	-1.13
									Bachelors < Illiterate*	-2.83*	.51	-3.85	-1.82
									Masters & Above < Illiterate*	-2.44*	.65	-3.71	-1.17
									Illiterate > Primary*	1.21*	.35	.53	1.90
									Illiterate > Matric*	.83*	.27	.30	1.36
									Illiterate > Intermediate*	1.24*	.31	.64	1.83
									Illiterate > Bachelors*	1.27*	.32	.64	1.89
									Illiterate > Masters & Above*	1.15*	.39	.37	1.94
									Primary < Illiterate*	-1.21*	.35	-1.90	-.53
									Matric < Illiterate*	-.83*	.27	-1.36	-.30
									Intermediate < Illiterate*	-1.24*	.31	-1.83	-.64
									Bachelors < Illiterate*	-1.27*	.32	-1.89	-.65
Masters & Above < Illiterate*	-1.15*	.39	-1.94	-.37									
Internalizing Problem	25.39 (14.26)	14.98 (11.87)	13.19 (9.18)	14.75(1 2.45)	10.51 (9.26)	13.78 (9.32)	20.36**		Illiterate > Primary*	10.40*	1.91	6.66	14.15
									Illiterate > Matric*	12.19*	1.47	9.31	15.08
									Illiterate > Intermediate*	10.63*	1.66	7.36	13.89
									Illiterate > Bachelors*	14.87*	1.73	11.48	18.27
									Illiterate > Masters & Above*	11.60*	2.17	7.35	15.86
									Primary < Illiterate*	-10.40*	1.91	-14.15	-6.66
									Primary > Bachelors*	4.47*	2.06	.42	8.51
									Matric < Illiterate*	-12.19*	1.47	-15.08	-9.31

Scale	Illiterate (n = 109)	Primary (n = 53)	Matric (n = 134)	Inter (n = 82)	Bachelor (n = 72)	Masters & Above (n = 37)	F	i-j	Mean D (i-j)	SE	95 % CI	
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	LL
Externalizing problem	21.99 (15.69)	12.84 (13.39)	15.69 (16.67)	16.45 (17.89)	14.86 (16.73)	20.32 (18.72)	3.38*	Intermediate < Illiterate*	-10.63*	1.66	-13.89	-7.36
								Intermediate > Bachelors*	4.24*	1.84	.63	7.85
								Intermediate < Illiterate*	-10.63*	1.66	-13.89	-7.36
								Bachelors < primary*	-4.47*	2.06	-8.51	-.42
								Bachelors < Intermediate*	-4.24*	1.84	-7.85	-.63
								Masters & Above < Illiterate*	-11.60*	2.17	-15.86	-7.35
								Illiterate > Primary*	9.14*	2.77	3.71	14.58
								Illiterate > Matric*	6.29*	2.13	2.11	10.48
								Illiterate > Intermediate*	5.54*	2.42	.79	10.29
								Illiterate > Bachelors*	7.13*	2.51	2.19	12.06
								Primary < Illiterate*	-9.14*	2.77	-14.58	-3.71
								Primary < Masters & Above*	-7.48*	3.54	-14.43	-.52
								Matric < Illiterate*	-6.29*	2.13	-10.48	-2.11
								Intermediate < Illiterate*	-5.54*	2.42	-10.29	-.79
Bachelors < Illiterate*	-7.13*	2.51	-12.06	-2.19								
Masters & Above > Primary*	7.48*	3.54	.52	14.43								
Total problem	67.28 (36.54)	41.39 (32.23)	35.81 (22.32)	40.77 (30.83)	28.63 (23.36)	38.86 (25.03)	20.81**	Illiterate > Primary*	25.89*	4.85	16.37	35.41
								Illiterate > Matric*	31.47*	3.73	24.14	38.80
								Illiterate > Intermediate*	26.52*	4.23	18.20	34.83
								Illiterate > Bachelors*	38.66*	4.39	30.02	47.29
								Illiterate > Masters & Above*	28.42*	5.50	17.60	39.24
								Primary < Illiterate*	-25.88*	4.85	-35.41	-16.37
								Primary > Bachelors*	12.77*	5.24	2.48	23.06
								Matric < Illiterate*	-31.47*	3.73	-38.80	-24.13
								Intermediate < Illiterate*	-26.51*	4.23	-34.83	-18.20
								Intermediate > Bachelors*	12.14*	4.67	2.96	21.33
								Bachelors < Illiterate*	-38.66*	4.39	-47.29	-30.02
								Bachelors < Primary*	-12.77*	5.24	-23.06	-2.48
								Bachelors < Intermediate*	-12.14*	4.67	-21.33	-2.96
								Masters & Above < Illiterate*	-28.42*	5.51	-39.24	-17.60

Note. CI = Confidence Interval.

* $p < .05$. ** $p < .001$.

In order to assess mean differences across education for ABCL syndrome-based scale ANOVA was carried out.

Table 71 indicated mean differences on ABCL across education for clinical sample. Significant mean differences were apparent on anxious depressed subscale where significant differences were apparent between illiterate, matric, and bachelors. In each comparison illiterate group scored higher as compared to other groups respectively. Significant mean differences were also apparent between individuals with primary and matric level of education. Individuals with primary level of education scored higher in comparison with individuals with matric level of education. Significant mean differences were also apparent between individuals with matric and masters and above level of education. The former group scored higher on anxious depressed subscale.

On withdrawn subscale, significant mean differences were apparent between illiterate and matric level of education. Illiterate group scored higher as compared to individuals with matric level of education. Moreover, significant differences were also apparent between individuals with primary and matric level of education. The former group scored higher on withdrawn subscale. For comparison with matric and masters and above group, individuals with masters scored higher.

On somatic complaints significant differences were apparent between illiterate, Matric, intermediate and bachelor's level of education. In each case, the illiterate group scored higher as compared to other group. In addition to this, individuals with primary level of education scored higher as compared to individuals with bachelors' level of education. Individuals with masters and above level of education scored higher on somatic complaints as compared to individuals with bachelor's level of education.

For comparison on attention problems, significant mean differences were apparent between illiterate and matric level of education where illiterate group scored higher. Significant differences were also apparent across primary, matric, and bachelors' level of education. In each case group with primary level of education scored higher. Additionally, significant mean differences were also apparent between matric, intermediate, and masters and above level of education group. Group with intermediate level of education scored

higher in comparison with matric level of education. Group with master and above level of education scored higher in comparison with matric level of education.

For internalizing problems, significant mean differences were apparent between illiterate and matric level of education. Illiterate group scored higher in comparison to the latter group. Along with this, significant mean differences were also apparent between primary, matric, and bachelors' level of education. Individuals with primary education scored higher as compared to individuals with matric and bachelors' level of education. Significant mean differences were also apparent between matric and masters and above group where the latter group scored higher.

Significant differences were apparent on total problem score across primary, matric and bachelors' level of education where individuals with primary education scored higher in each case of comparison.

Table 72 indicated differences on education for non-clinical sample across ABCL. Illiterate group scored higher on all narrow and broad band scales as compared to individuals with primary, matric, intermediate, and bachelors' level of education. For overall problem score as well, illiterate group scored higher as compared to individuals with primary, matric, intermediate, and bachelors' level of education.

Table 73 indicated that illiterate group in case of clinical sample scored higher on all PDs and clusters as compared to individuals with primary, matric, intermediate, and bachelors' level of education. For total clusters as well, illiterate group scored higher as compared to individuals with primary, matric, intermediate, and bachelors' level of education.

Table 74 indicated that for non-clinical sample illiterate group scored higher on all PDs and clusters as compared to individuals with primary, matric, intermediate, and bachelors' level of education. For total clusters as well, illiterate group scored higher as compared to individuals with primary, matric, intermediate, and bachelors' level of education.

Table 71

Mean Differences in ABCL Syndrome based Scales across Education for Clinical Sample (N = 408)

Scale	Illiterate	Primary	Matric	Inter	Bachelor	Masters & Above	F	<i>i-j</i>	Mean D (<i>i-j</i>)	SE	95 % CI	
	(<i>n</i> = 72) <i>M</i> (<i>SD</i>)	(<i>n</i> = 73) <i>M</i> (<i>SD</i>)	(<i>n</i> = 96) <i>M</i> (<i>SD</i>)	(<i>n</i> = 58) <i>M</i> (<i>SD</i>)	(<i>n</i> = 53) <i>M</i> (<i>SD</i>)	(<i>n</i> = 56) <i>M</i> (<i>SD</i>)					LL	UL
Anxious Depressed	23.65 (4.19)	23.26 (4.74)	21 (7.21)	22.65 (6.23)	21.19 (7.01)	22.98 (4.93)	2. 63 *	Illiterate > Primary	.39	.98	-1.53	2.31
								Illiterate > Matric*	2.65*	.92	.85	4.46
								Illiterate > Intermediate	1.0	1.04	-1.04	3.04
								Illiterate > Bachelors*	2.46*	1.06	.37	4.56
								Illiterate > Masters & Above	.67	1.05	-1.39	2.73
								Primary > Matric*	2.26*	.91	.46	4.06
								Primary > Intermediate	.61	1.03	-1.43	2.64
								Primary > Bachelors	2.07	1.06	-.02	4.16
								Primary > Masters & Above	.28	1.04	-1.78	2.33
								Matric < Intermediate	-1.66	.98	-3.58	.27
								Matric < Bachelors	-1.89	1.01	-2.17	1.79
								Matric < Masters & Above*	-1.98*	.99	-3.93	-.04
								Intermediate > Bachelors	1.47	1.12	-.73	3.66
								Intermediate < Masters & Above	-.33	1.1	-2.49	1.84
Bachelors < Masters & Above	-1.79	1.13	-4.01	.42								
Withdrawn	12.49 (3.23)	13.21 (3.54)	11.27 (4.38)	12.33 (3.89)	11.96 (3.93)	12.86 (3.40)	2. 60 *	Illiterate < Primary	-.72	.63	-1.96	.52
								Illiterate > Matric*	1.22*	.59	.05	2.38
								Illiterate > Intermediate	.16	.67	-1.16	1.48
								Illiterate > Bachelors	.52	.69	-.83	1.88
								Illiterate < Masters & Above	-.37	.68	-1.7	.96
								Primary > Matric*	1.93*	.59	.78	3.09
								Primary > Intermediate	.88	.67	-.44	2.19
								Primary > Bachelors	1.24	.69	-.10	2.59
								Primary > Masters & Above	.35	.67	-.98	1.67
								Matric < Intermediate	-1.06	.63	-2.30	.19
								Matric < Bachelors	-.69	.65	-1.97	.59
								Matric < Masters & Above*	-1.59*	.64	-2.84	-.33
								Intermediate > Bachelors	.36	.72	-1.05	1.78
								Intermediate < Masters & Above	-.53	.71	-1.93	.86
Bachelors < Masters & Above	-.89	.73	-2.33	.54								
Somatic Complaints	12.11 (3.24)	11.59 (3.32)	10.50 (4.37)	10.64 (4.42)	9.72 (4.40)	11.61 (3.30)	3. 35 **	Illiterate > Primary	.52	.65	-.75	1.79
								Illiterate > Matric*	1.61*	.61	.42	2.80
								Illiterate > Intermediate*	1.47*	.69	.13	2.82

Scale	Illiterate	Primary	Matric	Inter	Bachelor	Masters & Above	F	<i>i-j</i>	Mean D (<i>i-j</i>)	SE	95 % CI	
	(<i>n</i> = 72)	(<i>n</i> = 73)	(<i>n</i> = 96)	(<i>n</i> = 58)	(<i>n</i> = 53)	(<i>n</i> = 56)					LL	UL
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>						
Attention Problem	24.42	26.67	22.68	25.22	23.70	25.18	3.87	Illiterate > Bachelors*	2.39*	.70	1.01	3.78
	(5.08)	(6.25)	(8.76)	(7.41)	(7.64)	(5.62)	**	Illiterate > Masters & Above	.50	.69	-.86	1.87
								Primary > Matric	1.09	.60	-.10	2.28
								Primary > Intermediate	.95	.68	-.39	2.3
								Primary > Bachelors*	1.87*	.70	.49	3.25
								Primary < Masters & Above	-.02	.69	-1.38	1.34
								Matric < Intermediate	-.14	.65	-1.41	1.13
								Matric > Bachelors	.78	.67	-.52	2.09
								Matric < Masters & Above	-1.11	.65	-2.39	.18
								Intermediate > Bachelors	.92	.74	-.53	2.37
								Intermediate < Masters & Above	-.97	.73	-2.4	.46
								Bachelors < Masters & Above*	-1.89*	.75	-3.35	-.43
								Illiterate < Primary	-.25	1.17	-2.55	2.04
							Illiterate > Matric*	3.74*	1.1	1.59	5.89	
							Illiterate > Intermediate	1.19	1.24	-1.24	3.63	
							Illiterate > Bachelors*	2.72*	1.27	.22	5.22	
							Illiterate > Masters & Above	1.24	1.25	-1.22	3.7	
							Primary > Matric*	3.99*	1.09	1.85	6.14	
							Primary > Intermediate	1.45	1.24	-.98	3.88	
							Primary > Bachelors*	2.97*	1.27	.48	5.47	
							Primary > Masters & Above	1.49	1.25	-.96	3.95	
							Matric < Intermediate*	-2.55*	1.17	-4.84	-.25	
							Matric < Bachelors	-1.02	1.2	-3.38	1.34	
							Matric < Masters & Above*	-2.50*	1.18	-4.82	-.18	
							Intermediate > Bachelors	1.53	1.33	-1.1	4.15	
							Intermediate > Masters & Above	.05	1.32	-2.54	2.63	
							Bachelors < Masters & Above	-1.48	1.35	-4.13	1.17	
Internalizin g Problem	48.25	48.05	42.98	45.62	42.87	47.45	3.29	Illiterate > Primary	.20	1.91	-3.56	3.95
	(8.47)	(9.44)	(14.07)	(12.77)	(13.14)	(9.09)	**	Illiterate > Matric*	5.27*	1.79	1.75	8.79
								Illiterate > Intermediate	2.63	2.03	-1.36	6.62
								Illiterate > Bachelors*	5.38*	2.08	1.29	9.47
								Illiterate > Masters & Above	.80	2.05	-3.22	4.83
								Primary > Matric*	5.07*	1.79	1.57	8.59
								Primary > Intermediate	2.43	2.02	-1.54	6.41
							Primary > Bachelors*	5.19*	2.07	1.11	9.27	
							Primary > Masters & Above	.61	2.04	-3.41	4.62	

							Matric>Intermediate	-2.64	1.91	-6.4	1.12	
Scale	Illiterate (n = 72)	Primary (n = 73)	Matric (n = 96)	Inter (n = 58)	Bachelor (n = 53)	Masters & Above (n = 56)	F	i-j	Mean D (i-j)	SE	95 % CI	
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	LL				UL	
								Matric > Bachelors	.11	1.97	-3.76	3.98
								Matric < Masters & Above*	-4.47*	1.93	-8.27	-.67
								Intermediate > Bachelors	2.75	2.18	-1.54	7.05
								Intermediate < Masters & Above	-1.83	2.15	-6.06	2.41
								Bachelors < Masters & Above*	-4.58*	2.2	-8.91	-.25
								Illiterate < Primary	-8.18	6.4	-20.76	4.39
								Illiterate > Matric	10.15	6.0	-1.65	21.95
								Illiterate > Intermediate	.86	6.79	-12.5	14.21
								Illiterate > Bachelors	9.71	6.97	-3.99	23.41
								Illiterate > Masters & Above	2.04	6.86	-11.44	15.53
								Primary > Matric*	18.33*	5.98	6.58	30.09
								Primary > Intermediate	9.04	6.77	-4.27	22.35
Total	142.60	150.78	132.45	141.74	132.89	140	2.	Primary > Bachelors*	17.89*	6.95	4.23	31.55
Problem	(30.50)	(38.41)	(46.74)	(35.44)	(41.96)	(38.82)	34	Primary > Masters & Above	10.23	6.84	-3.22	23.67
							*	Matric < Intermediate	-9.29	6.4	-21.88	3.3
								Matric < Bachelors	-.44	6.59	-13.39	12.51
								Matric < Masters & Above	-8.11	6.47	-20.83	4.62
								Intermediate > Bachelors	8.85	7.32	-5.53	23.24
								Intermediate > Masters & Above	1.19	7.21	-12.99	15.37
								Bachelors < Masters & Above	-7.67	7.38	-22.17	6.84

*p < .05. **p < .001.

Table 72
Mean Differences in ABCL Syndrome across Education on Non-Clinical Sample (N = 487)

Scale	Illiterate (n = 109)	Primary (n = 53)	Matric (n = 134)	Inter (n = 82)	Bachelor (n = 72)	Masters & Above (n = 37)	F	i-j	Mean D (i-j)	SE	95 % CI	
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	UL
Anxious Depressed	10.02 (6.68)	5.21 (4.8)	5.83 (4.14)	5.85 (4.99)	4.75 (4.74)	5.14 (4.36)	13.88**	Illiterate > Primary*	4.81*	.86	3.13	6.49
								Illiterate > Matric*	4.19*	.66	2.89	5.49
								Illiterate > Intermediate*	4.16*	.75	2.69	5.64
								Illiterate > Bachelors*	5.27*	.78	3.74	6.79
								Illiterate > Masters & Above*	4.88*	.97	2.97	6.79
								Primary < Illiterate*	-4.81*	.86	-6.49	-3.13
								Matric < Illiterate*	-4.19*	.66	-5.49	-2.89
								Intermediate < Illiterate*	-4.16*	.75	-5.63	-2.69
								Bachelors < Illiterate*	-5.27*	.78	-6.79	-3.74
								Masters & Above < Illiterate*	-4.88*	.97	-6.79	-2.97
Withdrawn	5.30 (3.68)	3.21 (2.69)	3.33 (3.09)	3.26 (2.97)	2.32 (2.58)	3.43 (2.96)	9.66**	Illiterate > Primary*	2.09*	.52	1.08	3.11
								Illiterate > Matric*	1.97*	.39	1.19	2.76
								Illiterate > Intermediate*	2.05*	.45	1.16	2.94
								Illiterate > Bachelors*	2.98*	.47	2.06	3.91
								Illiterate > Masters & Above*	1.87*	.59	.71	3.03
								Primary < Illiterate*	-2.09*	.52	-3.11	-1.08
								Matric < Illiterate*	-1.97*	.39	-2.76	-1.19
								Matric > Bachelors*	1.01*	.45	.12	1.89
								Intermediate < Illiterate*	-2.05*	.45	-2.94	-1.16
								Bachelors < Illiterate*	-2.98*	.47	-3.91	-2.06
Bachelors < Matric*	-1.01*	.45	-1.89	-1.12								
Masters & Above < Illiterate*	-1.87*	.59	-3.03	-.71								
Somatic complaints	4.97 (4.46)	2.60 (2.58)	3.12 (3.26)	3.34 (3.82)	2.14 (2.53)	2.78 (3.16)	7.19**	Illiterate > Primary*	2.37*	.59	1.22	3.52
								Illiterate > Matric*	1.85*	.45	.97	2.74
								Illiterate > Intermediate*	1.63*	.51	.63	2.64
								Illiterate > Bachelors*	2.83*	.53	1.79	3.88
								Illiterate > Masters & Above*	2.19*	.67	.88	3.49
								Primary < Illiterate*	-2.37*	.59	-3.52	-1.22
								Matric < Illiterate*	-1.85*	.46	-2.74	-.97
								Intermediate < Illiterate*	-1.63*	.51	-2.64	-.63
								Intermediate > Bachelors*	1.20*	.57	.09	2.31
								Bachelors < Illiterate*	-2.83*	.53	-3.88	-1.79
Bachelors < Intermediate*	-1.20*	.57	-2.31	-.09								
Masters & Above < Illiterate*	-2.19*	.67	-3.49	-.88								

Scale	Illiterate (n = 109)	Primary (n = 53)	Matric (n = 134)	Inter (n = 82)	Bachelor (n = 72)	Masters & Above (n = 37)	F	i-j	Mean D (i-j)	SE	95 % CI		
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	LL	
Thought problem	2.75 (3.05)	2.06 (3.12)	1.39 (2.83)	1.33 (2.22)	1.17 (1.88)	1.29 (2.04)	5.06**		Illiterate > Matric*	1.36*	.34	.69	2.03
									Illiterate > Intermediate*	1.42*	.39	.66	2.18
									Illiterate > Bachelors*	1.59*	.40	.79	2.38
									Illiterate > Masters & Above*	1.46*	.50	.47	2.45
									Matric < Illiterate*	-1.36*	.34	-2.03	-.69
									Intermediate < Illiterate*	-1.42*	.39	-2.18	-.66
									Bachelors < Illiterate*	-1.59*	.40	-2.38	-.79
									Masters & Above < Illiterate*	-1.46*	.50	-2.45	-.47
Attention Problem	8.83 (6.63)	5.19 (5.63)	4.92 (4.32)	6.26 (5.63)	4.79 (4.16)	5.38 (5.03)	8.39**		Illiterate > Primary*	3.64*	.89	1.89	5.39
									Illiterate > Matric*	3.91*	.69	2.56	5.25
									Illiterate > Intermediate*	2.57*	.78	1.04	4.09
									Illiterate > Bachelors*	4.03*	.81	2.45	5.62
									Illiterate > Masters & Above*	3.45*	1.01	1.46	5.43
									Primary < Illiterate*	-3.64*	.89	-5.39	-1.89
									Matric < Illiterate*	-3.91*	.69	-5.25	-2.56
									Intermediate < Illiterate*	-2.57*	.78	-4.09	-1.04
Bachelors < Illiterate*	-4.03*	.81	-5.62	-2.45									
Masters & Above < Illiterate*	-3.45*	1.01	-5.43	-1.46									
Aggressive Behavior	8.59 (6.10)	4.81 (4.34)	5.44 (4.26)	5.46 (5.00)	4.35 (4.29)	5.16 (5.76)	8.81**		Illiterate > Primary*	3.79*	.83	2.15	5.42
									Illiterate > Matric*	3.16*	.64	1.89	4.42
									Illiterate > Intermediate*	3.13*	.73	1.70	4.56
									Illiterate > Bachelors*	4.25*	.76	2.76	5.74
									Illiterate > Masters & Above*	3.43*	.95	1.57	5.29
									Primary < Illiterate*	-3.79*	.83	-5.42	-2.15
									Matric < Illiterate*	-3.16*	.64	-4.42	-1.89
									Intermediate < Illiterate*	-3.14*	.73	-4.56	-1.70
Bachelors < Illiterate*	-4.25*	.76	-5.74	-2.76									
Masters & Above < Illiterate*	-3.43*	.95	-5.29	-1.57									
Rule Breaking Behavior	4.35 (4.05)	2 (3.45)	2.40 (3.05)	2.29 (3.06)	2.14(2.78)	2.54(3.89)	6.50**		Illiterate > Primary*	2.35*	.57	1.24	3.46
									Illiterate > Matric*	1.95*	.44	1.09	2.80
									Illiterate > Intermediate*	2.06*	.49	1.09	3.03
									Illiterate > Bachelors*	2.21*	.51	1.20	3.22
									Illiterate > Masters & Above*	1.81*	.64	.55	3.07
									Primary < Illiterate*	-2.35*	.57	-3.46	-1.24
									Matric < Illiterate*	-1.95*	.44	-2.80	-1.09
									Intermediate < Illiterate*	-2.06*	.49	-3.03	-1.09
Bachelors < Illiterate*	-2.21*	.512	-3.22	-1.20									
Masters & Above < Illiterate*	-1.81*	.642	-3.07	-.55									

Scale	Illiterate (n = 109)	Primary (n = 53)	Matric (n = 134)	Inter (n = 82)	Bachelor (n = 72)	Masters & Above (n = 37)	F	i-j	Mean D (i-j)	SE	95 % CI	
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	LL
Intrusive	2.95 (2.61)	1.62 (2.09)	2.49 (2.23)	1.98 (1.98)	1.82 (2.24)	2.10 (2.23)	3.97*	Illiterate > Primary*	1.33*	.38	.58	2.08
								Illiterate > Intermediate*	.98*	.33	.33	1.63
								Illiterate > Bachelors*	1.13*	.35	.46	1.81
								Primary < Illiterate*	-1.33*	.38	-2.08	-.58
								Primary < Matric*	-.87*	.37	-1.59	-.15
								Matric > Primary*	.87*	.37	.15	1.59
								Matric > Bachelors*	.67*	.33	.02	1.33
								Intermediate < Illiterate*	-.98*	.33	-1.63	-.33
								Bachelors < Illiterate*	-1.13*	.34	-1.81	-.46
Bachelors < Matric*	-.67*	.33	-1.33	-.02								
Internalizing Problem	20.29 (12.04)	11.01 (8.91)	12.28 (8.77)	12.45 (10.14)	9.21 (8.43)	11.35 (8.65)	14.91**	Illiterate > Primary*	9.27*	1.64	6.05	12.49
								Illiterate > Matric*	8.02*	1.26	5.54	10.49
								Illiterate > Intermediate*	7.84*	1.43	5.03	10.65
								Illiterate > Bachelors*	11.09*	1.49	8.16	14.01
								Illiterate > Masters & Above*	8.94*	1.86	5.28	12.60
								Primary < Illiterate*	-9.27*	1.64	-12.49	-6.05
								Matric < Illiterate*	-8.02*	1.26	-10.49	-5.54
								Matric > Bachelors*	3.07*	1.43	.26	5.88
								Intermediate < Illiterate*	-7.84*	1.43	-10.65	-5.03
								Intermediate > Bachelors*	3.24*	1.58	.14	6.35
								Bachelors < Illiterate*	-11.09*	1.49	-14.06	-8.16
								Bachelors < Matric*	-3.07*	1.43	-5.88	-.26
								Bachelors < Intermediate*	-3.24*	1.58	-6.35	-.14
Masters & Above < Illiterate*	-8.94*	1.86	-12.60	-5.28								
Externalizing problem	15.89 (11.29)	8.43 (8.98)	10.34 (8.46)	9.73 (8.34)	8.31 (8.27)	9.81 (10.09)	8.61**	Illiterate > Primary*	7.47*	1.56	4.40	10.53
								Illiterate > Matric*	5.56*	1.20	3.20	7.92
								Illiterate > Intermediate*	6.17*	1.36	3.49	8.84
								Illiterate > Bachelors*	7.59*	1.41	4.82	10.37
								Illiterate > Masters & Above*	6.09*	1.77	2.61	9.57
								Primary < Illiterate*	-7.47*	1.56	-10.53	-4.40
								Matric < Illiterate*	-5.56*	1.20	-7.92	-3.20
								Intermediate < Illiterate*	-6.17*	1.36	-8.84	-3.49
								Bachelors < Illiterate*	-7.59*	1.41	-10.37	-4.82
Masters & Above < Illiterate*	-6.09*	1.77	-9.57	-2.61								
Total problem	60.12 (36.47)	34.02 (28.80)	37.49 (27.25)	38.48 (29.14)	29.49 (25.12)	35.81 (27.86)	12.42**	Illiterate > Primary*	26.10*	4.99	16.29	35.90
								Illiterate > Matric*	22.63*	3.84	15.08	30.19
								Illiterate > Intermediate*	21.64*	4.36	13.09	30.20
								Illiterate > Bachelors*	30.63*	4.53	21.74	39.52

Table 73
 Mean Differences in ADPIV Scales across Education on Clinical Sample (N = 408)

Scale	Illiterate(n = 72)	Primary (n = 96)	Matric (n = 103)	Inter (n = 58)	Bachelor (n = 53)	Masters & Above (n = 26)	F	i-j	Mean D (i- j)	SE	95 % CI		
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	UL	
Paranoid	24.49 (11.79)	27.50 (12.30)	24.92 (11.36)	29.53 (11.22)	25.91 (11.63)	26.12 (10.13)	1.76		Illiterate < Intermediate*	-5.05*	2.05	-9.08	-1.02
									Matric < Intermediate*	-4.61*	1.91	-8.36	-.87
									Intermediate > Illiterate*	5.05*	2.05	1.02	9.08
									Intermediate > Matric*	4.61*	1.91	.87	8.36
Antisocial	21.79 (9.56)	25.43 (11.26)	23.66 (11.19)	25.50 (9.92)	22.42 (8.71)	23.04 (11.72)	1.51		Illiterate < Primary *	-3.64*	1.64	-6.85	-.42
									Illiterate < Intermediate*	-3.71*	1.85	-7.35	-.07
									Primary > Illiterate*	3.64*	1.64	.42	6.85
									Intermediate > Illiterate*	3.71*	1.85	.07	7.35
									Illiterate < Intermediate*	-5.22*	2.07	-9.29	-1.15
									Matric < Intermediate*	-5.18*	1.93	-8.97	-1.39
									Intermediate > Illiterate*	5.22*	2.07	1.15	9.29
									Intermediate > Matric*	5.18*	1.93	1.39	8.97
Narcissistic	23.72 (10.34)	25.60 (10.35)	27.26 (11.37)	28.38 (11.22)	27.81 (9.15)	27.73 (12.85)	1.77		Illiterate < Matric*	-3.54*	1.65	-6.79	-.29
									Illiterate < Intermediate*	-4.66*	1.89	-8.39	-.92
									Illiterate < Bachelors*	-4.09*	1.95	-7.92	-.26
									Matric > Illiterate*	3.54*	1.65	.29	6.79
									Intermediate > Illiterate*	4.66*	1.89	.92	8.39
									Bachelors > Illiterate*	4.09*	1.95	.26	7.92
Avoidant	22.57 (9.18)	23.61 (9.29)	24.25 (9.57)	23.84 (8.59)	23.51 (8.47)	27.23 (10.94)	1.03		Illiterate < Masters & Above*	-4.66*	2.12	-8.83	-.49
									Masters & Above > Illiterate*	4.66*	2.12	.49	8.83
Dependent	26.47 (9.81)	28.51 (10.44)	28.38 (10.96)	28.31 (8.85)	27.02 (8.14)	32.04 (11.14)	1.36		Illiterate < Masters & Above*	-5.57*	2.29	-10.08	-1.05
									Bachelors < Masters & Above*	-5.02*	2.40	-9.74	-.29
									Masters & Above > Illiterate*	5.57*	2.29	1.05	10.08
									Masters & Above > Bachelors*	5.02*	2.40	.29	9.74
Passive Aggressive	24.09 (8.76)	26.47 (9.59)	27.12 (9.97)	27.26 (8.58)	24.47 (8.43)	26.23 (8.29)	1.48		Illiterate < Matric*	-3.02*	1.41	-5.79	-.24
									Matric > Illiterate*	3.02*	1.41	.24	5.79
Cluster b	108.17 (34.09)	117.69 (37.29)	114.15 (37.71)	123.59 (34.49)	115.02 (30.16)	117.15 (39.28)	1.31		Illiterate < Intermediate*	-15.42*	6.30	-27.81	-3.03
									Intermediate > Illiterate*	15.42*	6.30	3.03	27.81
									Illiterate < Masters & Above*	-13.68*	6.12	-25.71	-1.66
									Masters & Above > Illiterate*	13.68*	6.12	1.66	25.71
Total cluster	263.14 (76.12)	283.05 (83.79)	277.50 (87.66)	292.62 (73.09)	276.28 (72.24)	289.54 (78.89)	1.05		Illiterate < Intermediate*	-29.48*	14.17	-57.34	-1.62
									Intermediate > Illiterate*	29.48*	14.17	1.62	57.34

Note. CI = Confidence Interval.

* $p < .05$.

Table 74

Mean Differences in ADPIV Scales across Education on Non-Clinical Sample (N = 487)

Scale	Illiterate (n=109)	Primary (n=53)	Matric (n=134)	Inter (n=82)	Bachelor (n=72)	Masters & Above (n=37)	F	i-j	Mean D (i-j)	SE	95 % CI	
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	UL
Paranoid	26.14 (8.51)	18.30 (6.61)	18.97 (6.82)	17.80 (6.78)	18.01 (6.86)	20.05 (6.76)	19.43**	Illiterate>Primary*	7.84*	1.21	5.46	10.21
								Illiterate>Matric*	7.17*	.93	5.34	8.99
								Illiterate>Intermediate*	8.33*	1.05	6.26	10.40
								Illiterate>Bachelors*	8.12*	1.09	5.97	10.27
								Illiterate>Masters & Above*	6.08*	1.37	3.39	8.78
								Primary < Illiterate*	-7.84*	1.21	-10.21	-5.46
								Matric < Illiterate*	-7.17*	.93	-8.99	-5.34
								Intermediate < Illiterate*	-8.33*	1.05	-10.40	-6.26
								Bachelors < Illiterate*	-8.12*	1.09	-10.27	-5.97
Masters & Above < Illiterate*	-6.08*	1.37	-8.78	-3.39								
Schizoid	24.09 (8.26)	17.38 (6.26)	18.96 (6.13)	19.38 (6.55)	17.79 (6.41)	20.16 (6.25)	11.78**	Illiterate>Primary*	6.71*	1.14	4.48	8.95
								Illiterate>Matric*	5.14*	.88	3.41	6.86
								Illiterate>Intermediate*	4.71*	.99	2.76	6.66
								Illiterate>Bachelors*	6.30*	1.03	4.27	8.33
								Illiterate>Masters & Above*	3.93*	1.29	1.39	6.47
								Primary < Illiterate*	-6.71*	1.14	-8.95	-4.48
								Matric < Illiterate*	-5.14*	.88	-6.86	-3.41
								Intermediate < Illiterate*	-4.71*	.99	-6.66	-2.76
								Bachelors < Illiterate*	-6.30*	1.03	-8.33	-4.27
Masters & Above < Illiterate*	-3.93*	1.29	-6.47	-1.39								
Schizotypal	29.29 (9.64)	18.92 (6.61)	21.01 (7.07)	19.87 (7.34)	19.94 (7.74)	22.78 (6.93)	23.14**	Illiterate>Primary*	10.37*	1.31	7.80	12.94
								Illiterate>Matric*	8.29*	1.01	6.31	10.26
								Illiterate>Intermediate*	9.43*	1.14	7.19	11.67
								Illiterate>Bachelors*	9.35*	1.19	7.02	11.68
								Illiterate>Masters & Above*	6.51*	1.48	3.59	9.43
								Primary < Illiterate*	-10.37*	1.31	-12.94	-7.80
								Primary < Masters & Above*	-3.86*	1.67	-7.14	-.57
								Matric < Illiterate*	-8.29*	1.01	-10.26	-6.31
								Intermediate < Illiterate*	-9.43*	1.14	-11.67	-7.19
Bachelors < Illiterate*	-9.35*	1.19	-11.68	-7.02								
Masters & Above < Illiterate*	-6.51*	1.48	-9.43	-3.59								
Masters & Above > Primary	3.86*	1.67	.57	7.14								

Scale	Illiterate (n=109)	Primary (n=53)	Matric (n=134)	Inter (n=82)	Bachelor (n=72)	Masters & Above (n=37)	F	i-j	Mean D (i-j)	SE	95 % CI	
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	LL
Antisocial	20.54 (7.12)	14.32 (4.64)	15.27 (5.57)	14.88 (5.93)	16.28 (6.32)	15.46 (5.77)	13.62**	Illiterate > Primary *	6.22*	1.01	4.23	8.21
								Illiterate>Matric*	5.27*	.78	3.74	6.81
								Illiterate>Intermediate*	5.66*	.88	3.93	7.40
								Illiterate>Bachelors*	4.26*	.92	2.46	6.07
								Illiterate>Masters & Above*	5.08*	1.15	2.82	7.34
								Primary < Illiterate*	-6.22*	1.01	-8.21	-4.23
								Matric < Illiterate*	-5.27*	.78	-6.81	-3.74
								Intermediate < Illiterate*	-5.66*	.88	-7.40	-3.93
								Bachelors < Illiterate*	-4.26*	.92	-6.07	-2.46
Masters & Above < Illiterate*	-5.08*	1.15	-7.34	-2.82								
Borderline	35.92 (10.67)	24.60 (9.33)	24.98 (8.36)	23.95 (9.19)	24.82 (8.32)	25.59 (7.99)	25.56**	Illiterate>Primary*	11.31*	1.53	8.31	14.32
								Illiterate>Matric*	10.94*	1.18	8.62	13.26
								Illiterate>Intermediate*	11.97*	1.34	9.34	14.59
								Illiterate>Bachelors*	11.09*	1.39	8.37	13.82
								Illiterate>Masters & Above*	10.32*	1.74	6.91	13.74
								Primary < Illiterate*	-11.31*	1.53	-14.32	-8.31
								Matric < Illiterate*	-10.94*	1.18	-13.26	-8.62
								Intermediate < Illiterate*	-11.97*	1.34	-14.59	-9.34
								Bachelors < Illiterate*	-11.09*	1.39	-13.82	-8.37
Masters & Above < Illiterate*	-10.32*	1.74	-13.74	-6.91								
Histrionic	25.95 (8.22)	18.75 (7.79)	20.88 (7.27)	19.26 (6.73)	19.47 (6.72)	21.27 (6.44)	12.32**	Illiterate>Primary*	7.19*	1.23	4.79	9.61
								Illiterate>Matric*	5.07*	.95	3.22	6.93
								Illiterate>Intermediate*	6.69*	1.07	4.59	8.80
								Illiterate>Bachelors*	6.48*	1.11	4.29	8.67
								Illiterate>Masters & Above*	4.68*	1.39	1.94	7.42
								Primary < Illiterate*	-7.19*	1.23	-9.61	-4.79
								Matric < Illiterate*	-5.07*	.95	-6.93	-3.22
								Intermediate < Illiterate*	-6.69*	1.07	-8.80	-4.59
								Bachelors < Illiterate*	-6.48*	1.11	-8.67	-4.29
Masters & Above < Illiterate*	-4.68*	1.39	-7.42	-1.94								
Narcissistic	32.35 (9.48)	24.36 (8.49)	25.63 (7.23)	24.06 (8.24)	24.01 (8.26)	24.81 (6.32)	15.27**	Illiterate>Primary*	7.99*	1.37	5.29	10.68
								Illiterate>Matric*	6.72*	1.06	4.65	8.79
								Illiterate>Intermediate*	8.29*	1.19	5.94	10.64
								Illiterate>Bachelors*	8.33*	1.24	5.89	10.78
								Illiterate>Masters & Above*	7.54*	1.56	4.48	10.59
								Primary < Illiterate*	-7.99*	1.37	-10.68	-5.29
								Matric < Illiterate*	-6.72*	1.06	-8.79	-4.65
								Intermediate < Illiterate*	-8.29*	1.19	-10.64	-5.94
								Bachelors < Illiterate*	-8.33*	1.24	-10.78	-5.89
Masters & Above < Illiterate*	-7.54*	1.56	-10.59	-4.48								

Scale	Illiterate (n=109)	Primary (n=53)	Matric (n=134)	Inter (n=82)	Bachelor (n=72)	Masters & Above (n=37)	F	i-j	Mean D (i-j)	SE	95 % CI		
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	LL	
Avoidant	26.06 (8.56)	17.98 (7.75)	21.03 (6.88)	17.38 (6.70)	19.15 (7.11)	20.35 (7.28)	16.74**						
									Illiterate>Primary*	8.08*	1.24	5.64	10.52
									Illiterate > Matric*	5.03*	.96	3.15	6.92
									Illiterate>Intermediate*	8.69*	1.08	6.55	10.82
									Illiterate>Bachelors*	6.91*	1.13	4.69	9.13
									Illiterate > Masters & Above*	5.71*	1.41	2.94	8.49
									Primary < Illiterate*	-8.08*	1.24	-10.52	-5.64
									Primary < Matric*	-3.05*	1.20	-5.41	-.68
									Matric < Illiterate*	-5.03*	.96	-6.92	-3.15
									Matric > Primary*	3.05*	1.20	.68	5.41
									Matric Intermediate*	3.65*	1.04	1.61	5.69
									Intermediate < Illiterate*	-8.69*	1.08	-10.82	-6.55
									Intermediate < Matric*	-3.65*	1.04	-5.69	-1.61
									Intermediate<Masters& Above*	-2.97*	1.47	-5.86	-.09
									Bachelors < Illiterate*	-6.91*	1.13	-9.13	-4.69
									Masters & Above < Illiterate*	-5.71*	1.41	-8.49	-2.94
	Masters & Above > Intermediate*	2.97*	1.47	.09	5.86								
Dependent	29.88 (9.54)	20.11 (7.69)	21.38 (7.41)	19.80 (97.83)	19.74 (97.03)	22.84 (8.39)	23.19**						
									Illiterate>Primary*	9.77*	1.35	7.12	12.42
									Illiterate>Matric*	8.50*	1.04	6.46	10.54
									Illiterate>Intermediate*	10.08*	1.18	7.76	12.39
									Illiterate>Bachelors*	10.14*	1.22	7.74	12.55
									Illiterate>Masters & Above*	7.04*	1.53	4.03	10.05
									Primary < Illiterate*	-9.77*	1.35	-12.42	-7.12
									Matric < Illiterate*	-8.50*	1.04	-10.54	-6.46
									Intermediate < Illiterate*	-10.08*	1.18	-12.39	-7.76
									Bachelors < Illiterate*	-10.14*	1.22	-12.54	-7.74
	Masters & Above< Illiterate*	-7.04*	1.53	-10.05	-4.03								
Obsessive Compulsive	33.32 (8.19)	25.75 (6.71)	25.57 (7.09)	24.95 (7.91)	23.58 (7.29)	27.43 (6.32)	21.37**						
									Illiterate>Primary*	7.57*	1.24	5.12	10.01
									Illiterate>Matric*	7.75*	.96	5.86	9.63
									Illiterate>Intermediate*	8.37*	1.09	6.24	10.50
									Illiterate>Bachelors*	9.74*	1.13	7.52	11.96
									Illiterate>Masters & Above*	5.89*	1.41	3.11	8.67
									Primary < Illiterate*	-7.57*	1.24	-10.01	-5.12
									Matric < Illiterate*	-7.75*	.96	-9.63	-5.86
									Intermediate < Illiterate*	-8.37*	1.09	-10.50	-6.23
									Bachelors < Illiterate*	-9.74*	1.13	-11.96	-7.52
									Bachelors < Masters & Above*	-3.85*	1.50	-6.80	-.89
	Masters & Above < Illiterate*	-5.89*	1.41	-8.67	-3.11								
	Masters & Above > Bachelors*	3.85*	1.50	.89	6.80								

Scale	Illiterate (n=109)	Primary (n=53)	Matric (n=134)	Inter (n=82)	Bachelor (n=72)	Masters & Above (n=37)	F	i-j	Mean D (i-j)	SE	95 % CI	
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	LL
Depressive	23.79 (910.42)	16.55 (7.87)	15.13 (6.61)	14.77 (6.75)	13.99 (5.33)	15.68 (6.71)	22.77**	Illiterate>Primary*	7.25*	1.28	4.74	9.77
								Illiterate>Matric*	8.67*	.99	6.73	10.61
								Illiterate>Intermediate*	9.03*	1.12	6.84	11.22
								Illiterate>Bachelors*	9.81*	1.16	7.53	12.09
								Illiterate>Masters & Above*	8.12*	1.45	5.27	10.98
								Primary < Illiterate*	-7.25*	1.28	-9.77	-4.74
								Matric < Illiterate*	-8.67*	.99	-10.61	-6.73
								Intermediate < Illiterate*	-9.03*	1.12	-11.22	-6.84
								Bachelors < Illiterate*	-9.81*	1.16	-12.09	-7.53
Masters & Above < Illiterate*	-8.12*	1.45	-10.98	-5.27								
Passive Aggressive	24.13 (8.35)	16.94 (6.15)	17.25 (5.77)	16.09 (6.01)	15.56 (5.84)	16.05 (4.77)	24.29**	Illiterate>Primary*	7.19*	1.08	5.06	9.31
								Illiterate>Matric*	6.88*	.84	5.24	8.52
								Illiterate>Intermediate*	8.04*	.95	6.19	9.90
								Illiterate>Bachelors*	8.57*	.98	6.64	10.50
								Illiterate>Masters & Above*	8.07*	1.23	5.66	10.49
								Primary < Illiterate*	-7.19*	1.08	-9.31	-5.06
								Matric < Illiterate*	-6.88*	.83	-8.52	-5.24
								Intermediate < Illiterate*	-8.04*	.95	-9.90	-6.19
								Bachelors < Illiterate*	-8.57*	.98	-10.50	-6.64
Masters & Above < Illiterate*	-8.07*	1.23	-10.49	-5.66								
Cluster a	79.52 (22.27)	54.60 (16.01)	58.93 (16.65)	57.05 (17.49)	55.75 (19.22)	63.0 (16.45)	24.75**	Illiterate>Primary*	24.92*	3.09	18.83	31.00
								Illiterate>Matric*	20.59*	2.39	15.90	25.28
								Illiterate>Intermediate*	22.47*	2.70	17.16	27.79
								Illiterate>Bachelors*	23.77*	2.81	18.25	29.29
								Illiterate>Masters & Above*	16.52*	3.52	9.61	23.44
								Primary < Illiterate*	-24.92*	3.09	-31.00	-18.83
								Primary < Masters & Above*	-8.39*	3.96	-16.18	-.61
								Matric < Illiterate*	-20.59*	2.39	-25.28	-15.90
								Intermediate < Illiterate*	-22.47*	2.70	-27.79	-17.16
								Bachelors < Illiterate*	-23.77*	2.81	-29.29	-18.25
								Masters & Above < Illiterate*	-16.52*	3.52	-23.44	-9.61
Masters & Above > Primary*	8.39*	3.96	.61	16.18								
Cluster b	114.76 (29.30)	82.04 (25.82)	86.75 (24.16)	82.15 (25.59)	84.58 (24.48)	87.14 (22.52)	23.55**	Illiterate>Primary*	32.72*	4.31	24.25	41.19
								Illiterate>Matric*	28.00*	3.32	21.48	34.53
								Illiterate>Intermediate*	32.62*	3.76	25.22	40.01
								Illiterate>Bachelors*	30.18*	3.91	22.49	37.86
								Illiterate>Masters & Above*	27.63*	4.89	18.00	37.25
								Primary < Illiterate*	-32.72*	4.31	-41.19	-24.25
								Matric < Illiterate*	-28.00*	3.32	-34.53	-21.48
Intermediate < Illiterate*	-32.62*	3.76	-40.01	-25.22								

Scale	Illiterate (n=109)	Primary (n=53)	Matric (n=134)	Inter (n=82)	Bachelor (n=72)	Masters & Above (n=37)	F	i-j	Mean D (i-j)	SE	95 % CI											
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)					LL	LL										
Cluster c	89.27 (21.59)	63.85 (19.28)	67.99 (18.28)	62.13 (19.02)	62.47 (18.79)	70.62 (19.09)	27.52**		Bachelors < Illiterate*	-30.18*	3.91	-37.86	-22.49									
									Masters & Above < Illiterate*	-27.63*	4.89	-37.25	-18.00									
									Illiterate>Primary*	25.42*	3.25	19.02	31.81									
									Illiterate>Matric*	21.28*	2.51	16.36	26.20									
									Illiterate>Intermediate*	27.13*	2.84	21.55	32.71									
									Illiterate>Bachelors*	26.79*	2.95	20.99	32.59									
									Illiterate>Masters & Above*	18.64*	3.69	11.38	25.91									
									Primary < Illiterate*	-25.42*	3.25	-31.81	-19.02									
									Matric < Illiterate*	-21.28*	2.51	-26.20	-16.36									
									Matric > Intermediate*	5.85*	2.72	.49	11.20									
									Intermediate < Illiterate*	-27.13*	2.84	-32.71	-21.55									
									Intermediate < Matric*	-5.85*	2.72	-11.20	-.49									
									Intermediate < Masters & Above*	-8.49*	3.85	-16.05	-.93									
									Bachelors < Illiterate*	-26.79*	2.95	-32.59	-20.99									
									Bachelors < Masters & Above*	-8.15*	3.93	-15.87	-.43									
									Masters & Above < Illiterate*	-18.64*	3.69	-25.91	-11.38									
									Masters & Above > Intermediate	8.49*	3.85	.93	16.05									
									Masters & Above > Bachelors*	8.15*	3.93	.43	15.87									
									Total cluster	283.55 (64.90)	200.49 (56.08)	213.67 (54.49)	201.33 (56.93)	202.81 (56.78)	220.76 (51.08)	30.37**		Illiterate>Primary*	83.06*	9.65	64.09	102.03
																		Illiterate>Matric*	69.88*	7.44	55.27	84.49
Illiterate>Intermediate*	82.22*	8.43	65.66	98.78																		
Illiterate>Bachelors*	80.74*	8.76	63.54	97.95																		
Illiterate>Masters & Above*	62.79*	10.97	41.24	84.35																		
Primary < Illiterate*	-83.06*	9.65	-102.03	-64.09																		
Matric < Illiterate*	-69.88*	7.44	-84.49	-55.27																		
Intermediate < Illiterate*	-82.22*	8.43	-98.78	-65.66																		
Bachelors < Illiterate*	-80.74*	8.75	-97.95	-63.54																		
Masters & Above < Illiterate*	-62.79*	10.97	-84.35	-41.24																		

Note. CI = Confidence Interval.

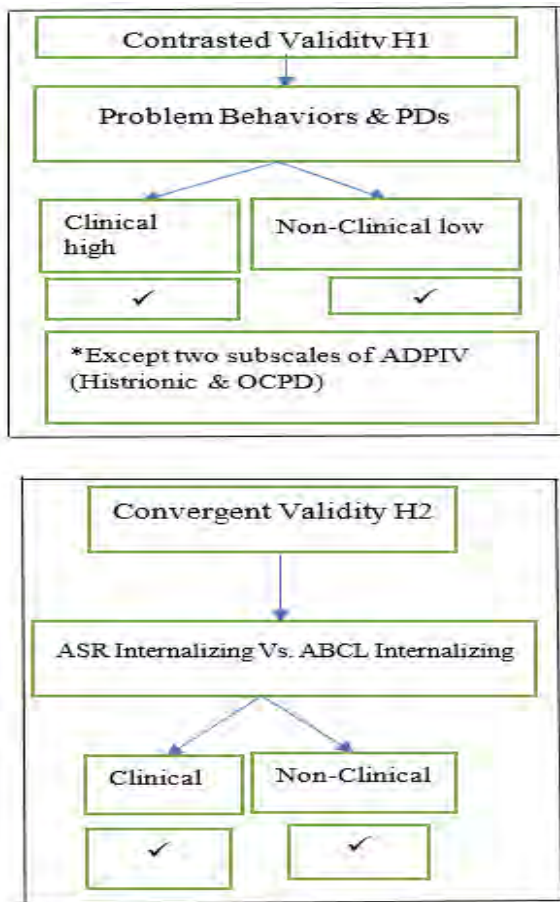
* $p < .05$. ** $p < .001$.

Summary of hypotheses testing

This section summarizes the findings of hypotheses testing. A significant positive relationship was apparent between PDs and problem behaviors. As no prior empirical evidence to the best of researcher's knowledge was available regarding predictive role of PDs in problem behaviors with reference to Pakistan, so stepwise regression analysis was carried out to assess the predictive role of PDs in problem behavior for both samples. The results of hypothesis testing are summarized in the figures below (see Figure 63 to 69).

Moderation analysis was further conducted to test the moderating role of adaptive functioning, age, and gender in relationship between PDs and problem behaviors. Findings indicated a unifying pattern in instances where moderation was significant. The relationship between PDs and problem behavior was weakest at highest level of adaptive functioning. Across gender, the relation between PDs and problem behavior was stronger for males in comparison to females for both samples. Whereas across age the relationship was stronger for individuals in early adulthood for clinical sample only (as interaction effect was non-significant in case of non-clinical sample).

Further group differences indicated PDs to be more prevalent among males in case of clinical sample whereas an opposite trend was apparent for non-clinical sample. Significant differences were also apparent across age and gender in case of problem behaviors. Result of each hypotheses has been summarized in figures below.



Prediction H3	Broad Band ASR	Clinical	Non-Clinical
Paranoid	Internalizing	✓	✓
	Externalizing	✓	✓
	Total	✓	✓
Schizoid	Internalizing	x	x
	Externalizing	✓	x
	Total	✓	x
Schizotypal	Internalizing	✓	✓
	Externalizing	✓	x
	Total	✓	✓

Figure 63. Summary of Hypotheses 1, 2, and 3

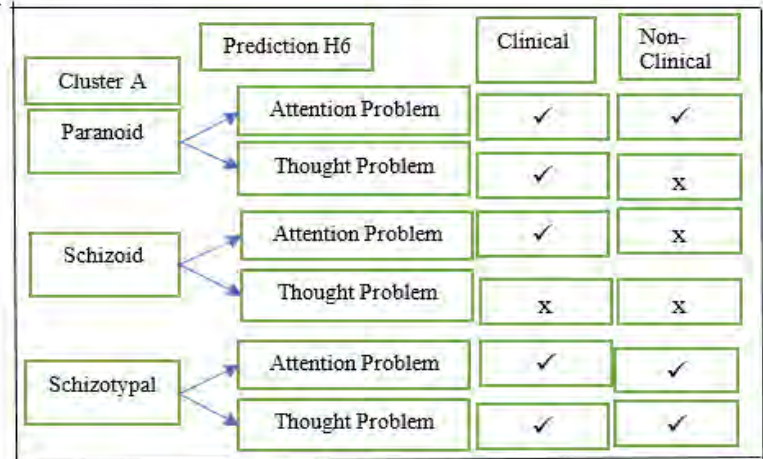
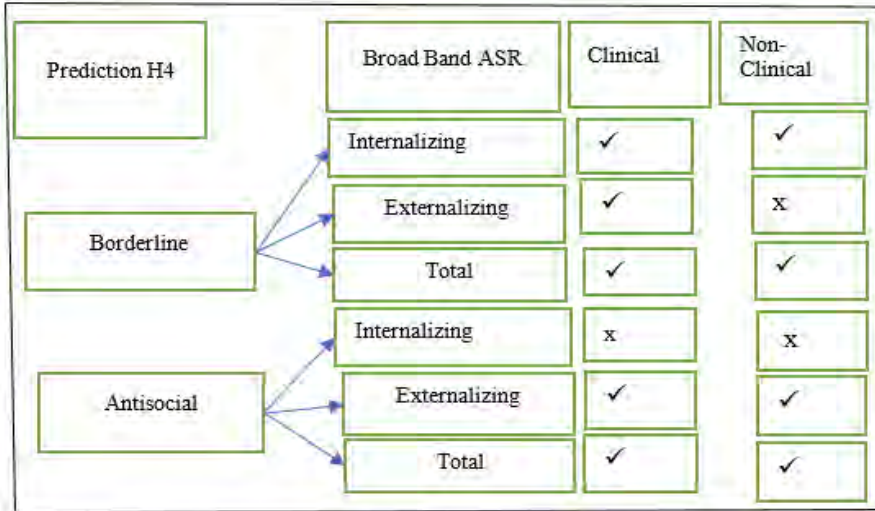


Figure 64. Summary of Hypotheses 4, 5, and 6

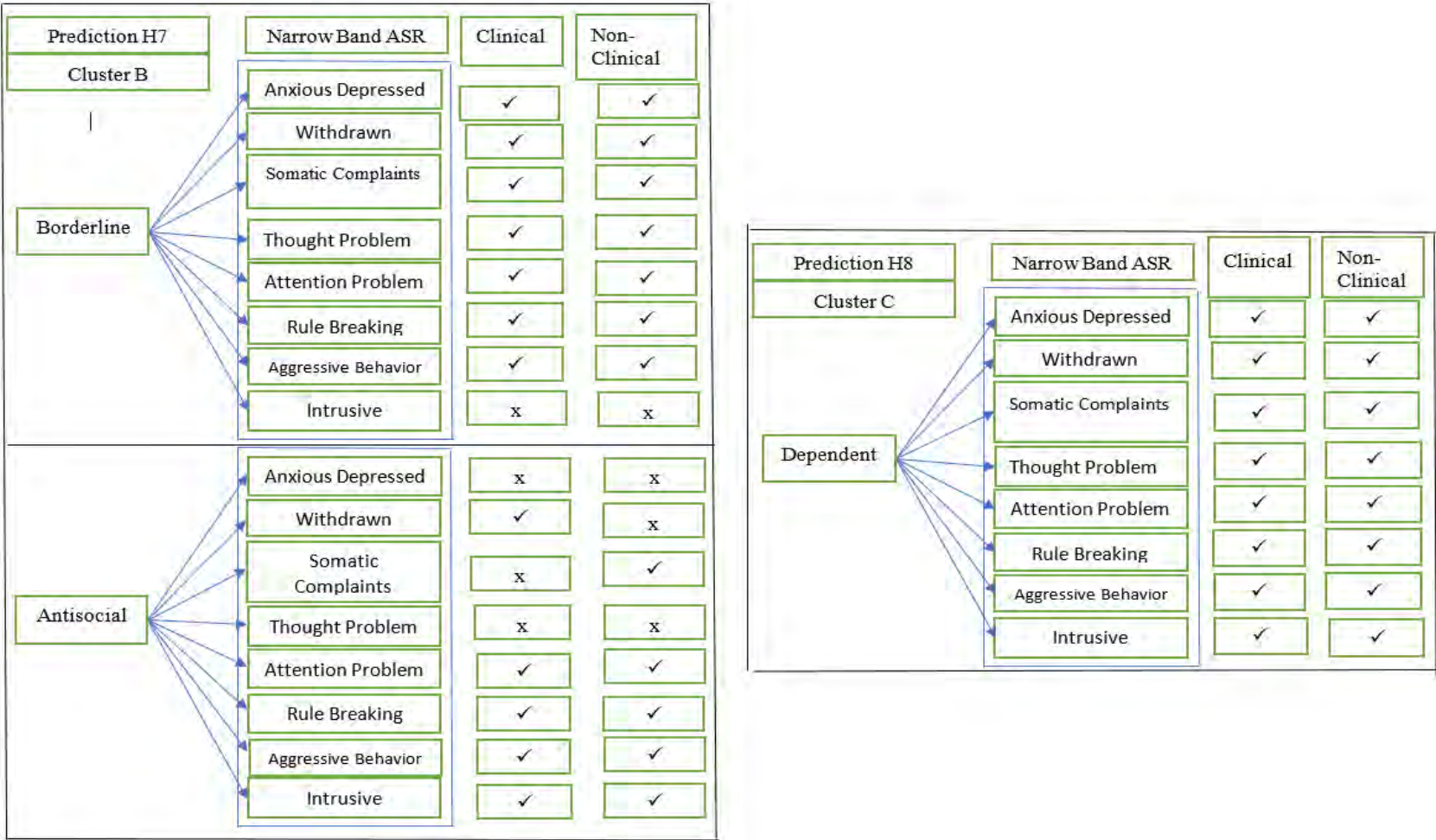


Figure 65. Summary of Hypotheses 7 and 8

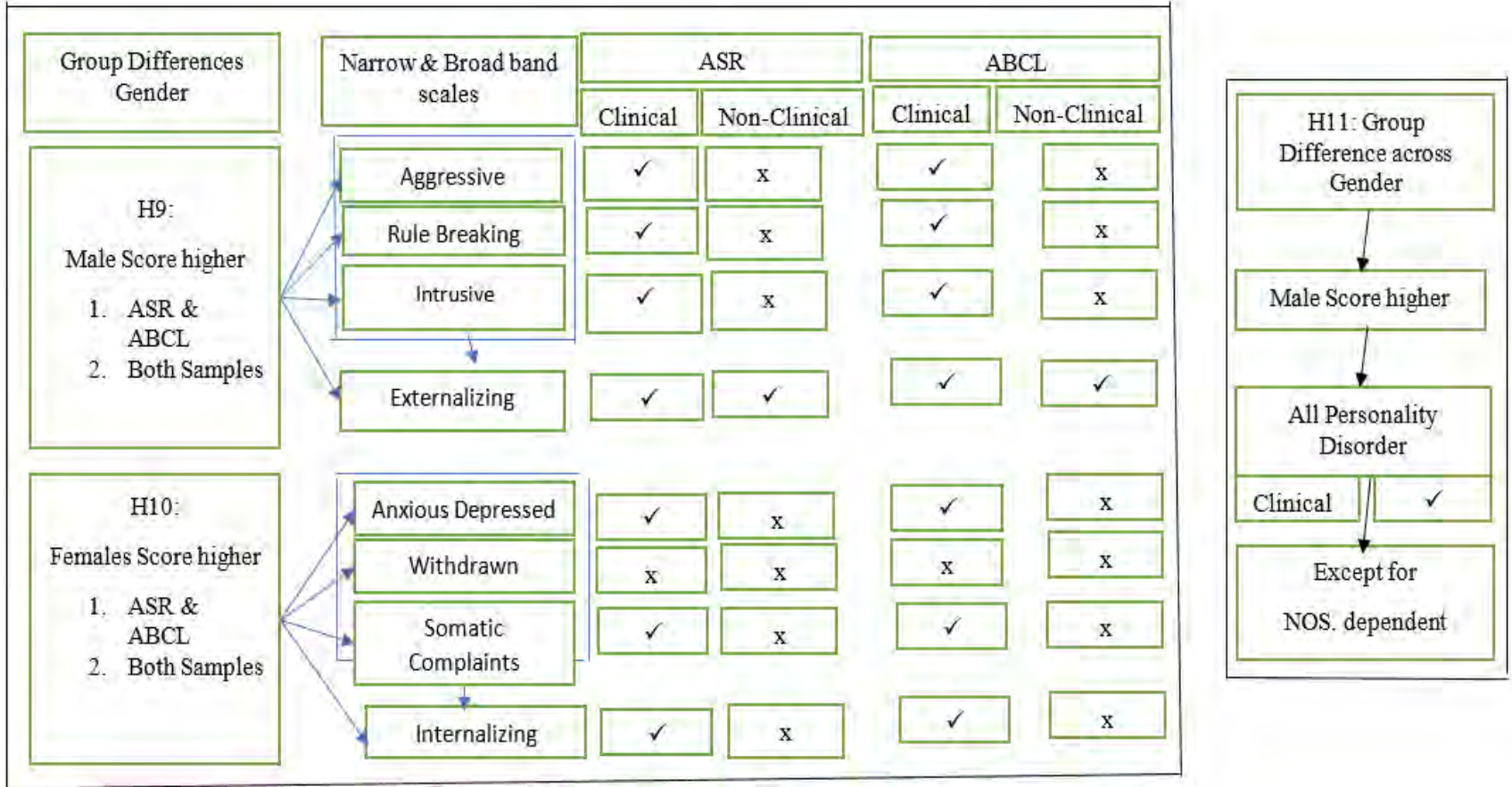


Figure 66. Summary of Hypotheses 9, 10, and 11

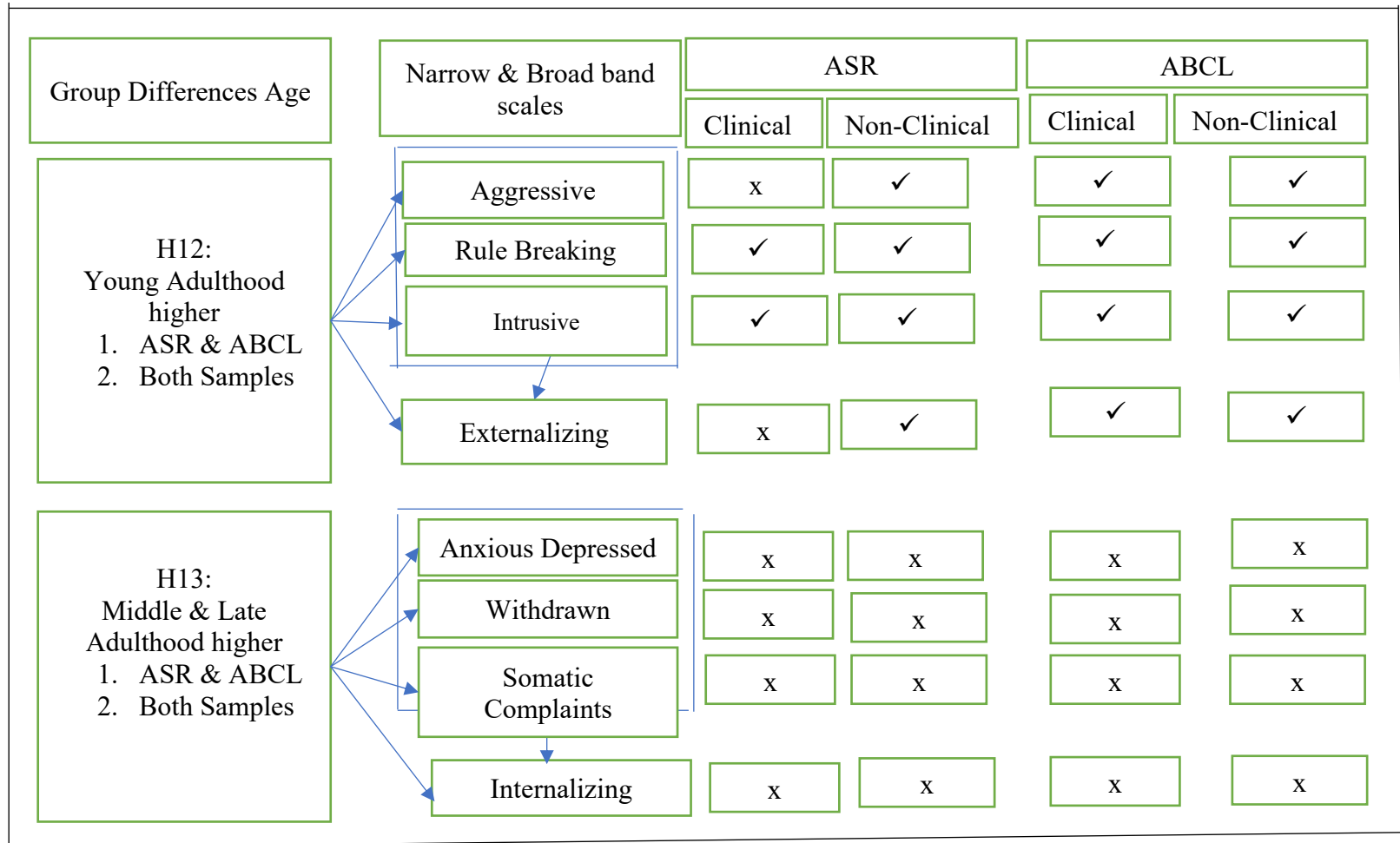


Figure 67. Summary of Hypotheses 12 and 13

Group Differences Age	ADP IV: Personality Disorder	
H14: Young Adulthood higher	Anti-social	
	Clinical	Non-Clinical
	✓	✓

Group Differences Education	Low education high	H15: Broad Band H16: Narrow Band		
Narrow & Broad band scales	ASR		ABCL	
	Clinical	Non-Clinical	Clinical	Non-Clinical
Aggressive	x	✓	x	✓
Rule Breaking	x	✓	x	✓
Intrusive	x	✓	x	✓
Externalizing	x	✓	x	✓
Anxious	x	✓	✓	✓
Withdrawn	x	✓	✓	✓
Somatic Complaints	✓	✓	✓	✓
Internalizing	✓	✓	✓	✓
Attention Problem	✓	✓	✓	✓
Thought Problem	x	✓	x	✓
Total Problem	x	✓	✓	✓

Figure 68. Summary of Hypotheses 14, 15, and 16

H17: Suicide History Scored higher	Group Differences Suicide Attempt	
	Clinical	Non-Clinical
ASR (Broad & Narrow Band)	✓	✓
ABCL (Broad & Narrow Band)	✓	✓
ADP IV (Individual & Cluster PDs)	✓	✓

Figure 69. Summary of Hypotheses 17

All these findings have been discussed comprehensively in the next section of discussion in the light of existing literature.

CHAPTER V

DISCUSSION

The following chapter will discuss the salient findings of the present study with reference to Pakistani context and highlights the probable justifications of the indigenous findings. Keeping in view the role of cultural factors, this chapter will highlight results according to objectives and hypotheses of the study. Therefore, in the first phase CFAs are discussed followed by prevalence, predictive relationships, moderations and group differences.

CFA for ASR and ABCL

In order to meet the first and foremost objectives of the present research, confirmation of factor structure for ASR and ABCL was carried out. In the first phase of the study both ASR and ABCL were translated into Urdu language following the method of forward translation. Following the procedures suggested by Sousa and Rojjanasrirat (2011) back translation was done to ensure that the Urdu version is similar to the original scale in terms of semantic relevance and content similarity (Mir, Kamal, & Masood, 2016).

In order to confirm the factor structure of ASR and ABCL confirmatory factor analysis was carried out on both samples separately using M-Plus. The findings indicated that default structure of Urdu version of both ASR and ABCL had a good fit to the data for both samples. For the present study, the eight-syndrome model was confirmed for both ASR and ABCL. *RMSEA* was taken as primary index of model fit whereas *CFI* and *TLI* were taken as secondary indices. For ASR both *RMSEA*, *CFI*, and *TLI* indicated a good model fit. Whereas for ABCL; *RMSEA*, *CFI*, and *TLI* indicated acceptable to good fit. For Both ABCL and ASR factor loading of items were above .25, which was taken as a criterion for acceptable factor loading (Field, 2009).

Findings of present research are consistent with the existing body of research. The proposed eight syndrome model has been tested across societies for different age groups. For adolescent's youth self-report (YSR), similar eight syndrome model has been confirmed across 33 societies (Ivanova et al., 2007; Rescorla et al., 2012). Findings are also consistent with parent version of informant report measure for instance Child Behavior Checklist (CBCL) for the age of 6 to 18 years in 41 societies and CBCL for the age of 1 ½

to 5 years in 23 societies. Similarly, empirically driven eight-syndrome model was confirmed for teacher report measure that include Teacher Report Form (TRF) for the ages of 6-18 across 27 societies and care giver teacher report form for the ages of 1 ½ to 5 years 14 societies (Rescorla et al., 2012). The findings are also consistent with previous studies conducted using ASR and ABCL. The factor structure of ASR has been confirmed across 29 societies for adults with age ranging from 18 to 59 years (Ivanova et al., 2019). Similar findings have been obtained for ABCL across 18 societies with age ranging from 18 to 50 years (Ivanova et al., 2015). It can be thus inferred that empirically driven eight-syndrome model exhibits generalizability across both adolescent and adult psychopathology. It also confirms that the proposed model of psychopathology based upon eight syndromes can be generalized across societies.

It is a commonly held believe that there exist differences in manifestation of child, adolescent, and adult psychopathology. As adults spend more time living in a particular society so the symptom manifestation is likely to be influenced by it. But previous researches indicate that the eight-syndrome model confirmed across all three age groups provides considerable evidence for generalizability (Ivanova et al., 2015). It can be thus inferred that set of genetic factors overlapping with environmental factors converge across societies that results in similar manifestation of psychopathology. This leads to convergence of eight-syndrome model in Pakistani society as well with respect to self and informant related measures of psychopathology. This also furnishes evidence for overall “p factor” of psychopathology that is the pathology factor which tends to be distributed in a manner that is similar to “g factor” that is general factor of intelligence (Caspi et al., 2014) suggesting a unifying factor for psychopathology.

In order to assess internal consistency alpha reliabilities were computed for both samples. Urdu version of self and informant indicated excellent Cronbach’s alpha for three broad band scales for instance ASR internalizing (.91 for both samples), ASR externalizing (.91 for clinical and .89 for non-clinical), and ASR total problems (.96 for both samples), ABCL internalizing (.90 for both samples), externalizing (.91 for clinical and .89 for non-clinical), and total problems (.95 for clinical and .96 for non-clinical). However, low to excellent reliabilities were observed for the eight narrow band scales of ASR ranged from .57 to .87 for both samples. Similar trend was apparent for ABCL where reliabilities for

narrow band eight syndromes ranged from .55 to .85. Notably, low reliabilities were found for intrusive and thought problems for both samples.

Low reliabilities for narrow band scales have also been observed in studies aimed at confirmation of similar models across other societies for instance Kenya (Magai, Malik, & Koot, 2018) for adolescents as well. Using similar measure to establish psychometrics across seventeen societies the reliability of thought problems has ranged from .34 to .71 with a mean alpha reliability of .59 (which is lowest in all narrow band scales). Similarly, the same study found the reliability for intrusive problems to range from .60 to .79 with a mean of .70 (Rescorla et al., 2016). Diverse reasons can contribute to low internal consistency like number of items in subscales and homogeneity in responses. For clinical scales, common practice is to rely on pre-defined criteria of psychological constructs, leading to scales that are often homogenous, ultimately effecting the predictive validity of scales (Smits et al., 2018). In addition to this, critically reviewing the process of scale development of ASR and ABCL indicates that items are derived from the mental health related presenting complaints at the time of intake of patients. This results in development of scales and subscales that have moderate internal consistencies, but replicable structure and good validity (Achenbach. 1991; Magai, Malik, & Koot, 2018; Verhulst, Van der Ende, & Koot, 1996). Based upon these findings it can be inferred that both ASR and ABCL serve as a core data language along which diverse kind of psychopathologies can be described, grouped and presented to get a better and comprehensive picture of problem behaviors that can aid in better conceptualization of psychopathology and bring an advancement in research and betterment in clinical diagnosis and utility.

CFA FOR ADP IV

The second objective of the study was to validate ADP-IV. DSM-IV concept of personality pathology is based upon two key elements the “trait concept” referring to “personality traits that are enduring patterns of perceiving, relating to, and thinking about the environment and oneself, that are exhibited in a wide range of social and personal contexts” (APA, 1994, pp. 630) and “the dysfunction or distress element”, which highlights consequences like maladaptivity, impairment and distress emerging as a consequence of underlying personality traits. These traits are only considered pathological with they are

maladaptive and significantly interferes with the normal functioning of the individual (APA, 1994, pp.630)

As a consequence, all tools based upon DSM IV's proposed categorization of personality pathology should be based upon the two key elements of "traits" and "distress". Many tools designed for the assessment of personality pathology have only stressed upon the "trait" element rather than on criterion specific distress, impairment and dysfunction (Klein, 1999). Even the analysis of content of items assessing personality pathology indicate that they are not assessing criterion specific dysfunction, distress or impairment (Schotte et al., 1998). Thus, it can be concluded that these instruments are assessing some aspects of personality traits but are not accurately assessing personality pathology.

The present research uses Assessment of DSM IV personality disorders (ADP IV; Schotte et al., 1998). Originally ADP IV is a 94-item paper and pencil instrument that is based of self-report assessment of PDs based upon DSM IV's criteria. ADP IV is unique in a sense that it allows assessment for both "trait" and "distress" element of each criterion specified by DSM IV. For each criterion of personality disorder an individual rate him/herself on a seven-point scale that is referred to as "trait scale". Along with it the "distress", "maladaptivity" and suffering is assessed on a three-point scale referred to as "distress scale" (Schotte et al., 1998).

The ADP IV dimensional scoring was taken into account for confirmation of factor structure. ADP IV has been translated into Urdu language (Hassan & Kamal, 2012). The factor structure of 10 PDs along with two NOS categories was confirmed for Pakistani sample of adults. For the present study confirmatory factor analysis (CFA) was carried out for non-clinical sample ($N = 487$) and clinical ($N = 408$) to assess the factor structure for adults between the ages of 18 to 59 years using Plus. *RMSEA* was taken as a primary index of model fit whereas *CFI* and *TLI* were taken as secondary index of model fit (Yu & Muthen, 2002). *RMSEA* was selected as primary index because it is considered to be performing best with *WLSMV* which accounts for non-normal distribution of data. Values of *RMSEA* indicated acceptable model fit. Whereas, Secondary indices which include *CFI* and *TLI* indicated acceptable to excellent model fits. All factor loadings were within the acceptable range (above .25), which was taken as a criterion for acceptable factor loading

(Filed, 2009). The finding of the present research is also consistent with existing body of other literature. Schotte et al. (1998) also confirmed similar factor structure for ADP IV for Flemish population. So, based upon findings no change was observed in factor structure of ADP IV.

In order to assess internal consistency alpha reliabilities were computed for both clinical ($N = 408$) and non-clinical sample ($N = 487$). Urdu version of ADP IV (Hassan & Kamal, 2012) was used for present research. The reliability of Cluster A, B, C and total cluster was found to be good. Whereas the reliability of subscales was found to range from acceptable to good for both clinical and non-clinical samples. For both samples' reliabilities of schizoid (.64 for clinical and .61 for non-clinical), Histrionic (.68 for both clinical and non-clinical samples), obsessive compulsive personality disorder (.75 for clinical and .64 for non-clinical) and passive aggressive personality disorder (.65 for clinical and .69 for non-clinical) were low. Though from pilot study, with an increase in sample size there was a significant increase in values of reliabilities, yet few were low. Reliabilities of all these except for histrionic have been low in other researchers as well (Hassan & Kamal, Schotte et al., 1998). Schotte et al. (1998) argue that low reliabilities are acceptable for PDs keeping in mind fewer number of items for each subscale in comparison to other self-report measures assessing personality pathology. Schizoid and obsessive-compulsive personality disorders have shown low reliabilities (.60 and .68 respectively) in another study as well (Kline, 1999). Both these have shown considerably low reliability in both assessment using interviews and self-report measures (Widiger, 1991). This problem of low reliability of PD is also apparent even if diverse methods such as self-report and informant reported measures have been used. In addition to this, even interrater reliabilities and test-retest reliabilities have shown lower values in case of PDs (Perry, 1992). This consistency of findings across literature across different samples and methods suggest a need for construct revision that includes the way they have been operationalized in DSM III, DSM IV and even DSM V. As no major change has been made in DSM V criteria for PDs section II (Krueger et al., 2007). Both these groups do not seem to have homogenous diagnostic categories, so researches suggest that major revisions are needed (Krueger et al., 2007; Schotte et al., 1998).

Evidence for contrasted group validity

The present research also compared clinical and non-clinical samples on study variables. In order to test the first hypothesis of the main study. Findings indicated that on ASR syndrome, ABCL syndrome, ADP-IV clinical group scored significantly higher as compared to the non-clinical group. This provides an evidence for the contrasted group validity of the scales (Jorgesen, Konge, & Subhi, 2018). As the scales used in present research are assessing clinical constructs so for validity evidence, they need to discriminate between two distinct samples which was confirmed by results of present study as well (Kline, 1999).

Evidence for convergent validity

In order to furnish evidence for the first objective, convergent validity was established. Following the guidelines of multi trait multi method matrix proposed by Campbell and Fiske (1959) aimed at establishing the convergent evidence of validity, mono-trait hetero-method (MTHM) correlations were computed. The data obtained from self-report via ASR and informant report via ABCL were compared across broad bands and narrow bands. As suggested by O'Leary-Kelly -Kelly and Vokurka (1998), value of correlation was significant and different from zero. For broad band scales values of correlation were .87 and .78 for internalizing behavioral problems and .44 and .27 for externalizing behavioral problems for both clinical and non-clinical sample. For narrow band scales values ranged from .20 to .84 for clinical sample and .31 to .77 for non-clinical sample. Based upon this it can be inferred that both scales i.e., ASR and ABCL were assessing similar constructs thus providing an evidence of convergent validity. The low to moderate values obtained for narrow band scales are also consistent with previous literature. Meta-analytical studies by Achenbach, Krukowski, Dumenci, & Ivanova (2005) reveal a moderate to low correlation between self-report measures and informant measures. They attribute these differences to differences in perception of problems by different individuals. Moreover, researchers argue that different individuals provide diverse information and these differences help in developing a comprehensive picture of the problem (Achenbach, 2006). Across broad band scales lowest agreement was apparent for externalizing behavioral problems for both clinical and non-clinical sample. Across narrow band scale for clinical sample low agreement was observed for intrusive (.20), rule breaking (.28), thought (.47) and somatic complaints (.49). For non-clinical sample lowest

agreement was apparent in case of thought problems (.31). These values need to be interpreted keeping in mind the indigenous context. People tend to under report externalizing behavioral problems and thoughts are something that another individual cannot report as differences in perception play a key role.

An additional attempt was made to furnish evidence for convergent validity by computing correlation between ASR, ABCL (broad and narrow band scales), and ADP-IV (both individual and cluster level PD) and adaptive functioning scale. It was carried out keeping in mind the theoretical assumption that there would be a negative relationship between PDs, problem behaviors, and adaptive functioning for both samples. Findings confirmed the negative relationship in case of non-clinical sample (only exception to this was narrow band scale of intrusive problems). Similarly, for clinical sample results were same for ASR. For ABCL as well, results were also significant and negative except for the subscale of intrusive problems and adaptive functioning subscale of friends for non-clinical sample. Across clinical sample non-significant relationships were apparent for both subscales of rule breaking and intrusive. Across ADP-IV as expected all relationships were significant and negative for non-clinical sample. But for clinical sample relationship at the level of individual PDs relationship between histrionic, narcissistic, avoidant, dependent and obsessive-compulsive PDs were non-significant. At cluster level, relationship between cluster C and adaptive functioning was non-significant (see Table 22).

These findings need to be interpreted carefully as it is imperative to understand the role which PDs and problem behaviors have on poor adaptive functioning. Adaptive functioning has been a key area of interest for researchers working on PDs for long as they have incorporated the criteria of significant impairment because of presence of PDs on key areas of friends, family, peers and work place. Both PDs and problem behaviors are likely to be aggravated by poor adaptive functioning (that specifically includes friends, family, spouse and coworkers) as this is likely to enhance the belief of individuals that no one in the surrounding understands the individual or no one is in a position to offer support to individual. This is likely to aggravate the emotional dysregulation and strengthen the negative beliefs/schemas of individuals which is an emerging area of research, when it comes to efforts to understand relationship between PDs and problem behaviors and designing effective treatment plans and intervention for it.

Non-significant findings need to be interpreted carefully as set of diverse factors ranging from nature of the disorder to culture are likely to contribute to it. The non-significant finding in case of narrow band scale of intrusive behavioral problem (for both samples) and cluster B PDs (for clinical sample) can be attributed to the nature of disorder where in case of intrusive problems the element of compulsion present in thought pattern and in case of histrionic and narcissistic PDs the tendency to pretend and manipulate facts are likely to lead to these patterns. Similarly, for all in general and cluster C PDs in specific it is important to consider the element of cultural norms and values. People in collectivistic cultures like Pakistan are less likely to report problems in relationships with family, spouse, friends, and coworkers. These problems are considered to be too personal and sharing these is seen as failure of the person so individuals might find it hard to share their personal experiences. Moreover, the overall environment of outpatient units (from where that data was collected for clinical sample) also need to be considered as no privacy exists and individual finds it hard to share experiences related to family and spouse which are personal. Though this was carried out with an attempt to furnish evidence of convergent validity, however on the basis of these findings, it was decided to explore further in details how adaptive functioning could buffer the relationship between PDs and problem behaviors.

Prevalence rates for empirically based assessment of problem behaviors and personality disorders

In order to test the third and fourth objective of the study prevalence was established. Findings indicated that for clinical sample more individuals scored in the category of clinical range for each problem scale including both narrow and broad band scales for ASR. Similar trend was apparent for ABCL as well. Findings are consistent with existing body of literature as clinical sample experiences more problem in comparison to non-clinical or community sample (Philipp et al., 2018). With reference of prevalence of broad band behavioral problems, it was apparent that 92.9% clinical sample and 18.9% of non-clinical sample had internalizing behavioral problems and 77.9 % of clinical sample and 25.7 % of non-clinical sample had externalizing behavioral problems. For ABCL, 94.6% clinical sample and 23.2 % of non-clinical sample had internalizing behavioral problems and 80.6 % of clinical sample and 12.3 % of non-clinical sample had

externalizing behavioral problems. Though a mild difference is apparent in case of self and informant measure (ASR and ABCL), but that again is because of the fact that both are based on subjective perceptions of individuals so are likely to vary (Achenbach, 2006). The trend of higher coherence between the self and informant measure is more apparent, which is unique finding with respect to Pakistani culture. Another eminent trend observed was high degree of comorbidity between internalizing and externalizing behavioral problems which is in line with existing literature (Magai, Malik, & Koot, 2018; Willner, Gatzke-Kopp, & Bray, 2016). Researchers agree on the fact that psychiatric comorbidity tends to be as high as 50 % in case of psychopathology. This high rate of co-morbidity suggests that there exists an underlying parsimonious structure that is inherent in psychopathology and is applicable to the current nosology's that at present are identified as separate or distinct disorders (Chan, Dennis, & Funk, 2008; Newman, Moffitt, Caspi, & Silva, 1998). This further is providing support for rationale of current study for adopting approaches like Achenbach System of Empirically based Assessment that focuses of co-occurrence of mental health problem rather than following the traditional categorical system of diagnosis. Growing body of empirical evidences indicates that nearly half of the individuals who meet the criteria for one disorder are likely to meet criteria for second disorder as well (Caspi et al., 2014).

With reference to narrow band scales, 86.3 % of clinical sample reported anxious depressed behavioral problems followed by withdrawn (81.1%), and attention problems (80.6%). Intrusive behavioral problems were least reported (19.4%) followed by thought problem (43.9%) for clinical sample for non-clinical sample somatic complaints (8.4%) were most reported followed by thought problems (7.2%). Intrusive problems (3.1 %) were least reported followed by attention problems (6.2 %) and aggressive problems (6.2 %) for non-clinical sample. As much work on establishing prevalence across empirically driven taxonomies i.e. internalizing and externalizing behavioral problems has been done with reference to children and adolescents so these narrow band scales have grossly ignored (Kotov et al., 2010; Kotov et al., 2011). The current study adds to the existing literature by establishing the rates of two distinct domains that includes attention problems and thought problems. In all 43.9 % of clinical sample had thought problems and 80.6% had attention problems. In contrast 7.2 % and 6.2 % of non-clinical sample reported for having thought

and attention problem respectively. Both these contribute to the emerging third spectrum that includes i.e., thought disorder spectrum. Externalizing problems show a very strong relationship pattern of comorbidity with thought disorder spectrum as well (Wright et al., 2013).

The overall high prevalence of problems behaviors among adults indicates that there is a dire need to address and understand the issue of co-morbidity among problem behaviors. Moreover, efforts need to be centered in understanding the third emerging dimension of thought disorder spectrum. This can further aid in developing better understanding of competing psychopathology models.

Significant differences were apparent across personality disorder as well where as expected prevalence of PDs was much higher in clinical sample in comparison to non-clinical sample. In clinical sample BPD was most prevalent (45.1%), followed by paranoid (30.1%) and narcissistic PD (30.1%). Least prevalent PD in case of clinical sample was ASPD (14.7 %) followed by NOS depressive PD (18.9 %). With reference to non-clinical sample OCPD was most prevalent (9 %) followed by Avoidant PD (4.1 %). Least prevalent PD in case of non-clinical sample was ASPD (0.6 %) followed by schizoid and schizotypal PD (1.4 % each). Findings are consistent with existing literature. It is important to understand that prevalence data regarding of any form of psychopathology is highly dependent on characteristics of the sample being studied, types of tools used for assessment and psycho-social aspects including culture (Tyrer et al., 2010). So previous researches indicate that for clinical samples BPD is most studied disorder and many attributes this to high prevalence of BPD in clinical samples. Past researches have recorded the prevalence of BPD to be as high as 49 % among clinical inpatients (Ellison, Rosenstein, Morgan, & Zimmerman, 2018). Similarly, Gross et al. (2002) found the prevalence of BPD to be as high as 42.9 % in urban primary care. Findings of this study highlighted a very significant fact that all these individuals were not diagnosed with BPD initially by physicians which also establishes the fact that PDs are often not assessed at the time of assessment of psychopathology. This high prevalence of BPD in clinical samples can be attributed to underlying elements of emotional instability, confusion and impulsivity prevailing among individuals with psychopathology (Coid et al., 2006). Other researches attribute to the fact that among all personality disorders people with BPD tend to seek more treatment

(Beckwith, Moran, & Reilly, 2014; Tyrer, 2014). Furthermore, researches indicate that individuals with BPD in particular and cluster B overall tend to seek more treatment as these conditions are associated with marked degree of functional impairments as well as increased need to seek attention from significant others in society (Beckwith, Moran, & Reilly, 2014; Keown, Holloway, & Kuipers, 2002; Skodol et al., 2002).

Though low as compared to clinical sample but a substantial number of individuals showed personality disorders in non-clinical sample as well. Past researchers conducted on community sample confirm this finding that prevalence of personality disorder is apparent in non-clinical samples (Coid et al., 2006). Similarly, a Polish study, conducted on healthy (non-clinical) Polish sample found OCPD (9.6%) to be most prevalent, whereas schizoid (2.10 %) and schizotypal (2.13 %) were least prevalent (Gawda & Czubak, 2017), a trend similar to what is apparent in present study. Similarly, another study conducted in England (Wales and Scotland) on non-clinical sample found OCPD (10.7 %) to be most prevalent (Coid et al., 2006). Another study on Norwegian sample found avoidant PD (13.4 %) to be most prevalent (Torgersen et al., 2001) in nonclinical sample. This high prevalence of Cluster C disorders that include OCPD and avoidant PD in case of non-clinical sample can be attributed to influence of modern societal patterns on development of personality that is leading to formation of pathological patterns. Demands, expectations and social requirements have increased tremendously which is negatively impacting identity formation and adjustment by creating a tremendous pressure to create and follow certain specific social roles. These patterns make individuals more prone to experience instability in moods and feelings of anxiousness by creating inner conflicts which are the key features of Cluster C PDs. So, to conclude finding regarding high prevalence of OCPD in non-clinical sample are consistent with data obtained in Germany, Great Britain, Norway, Sweden, and in the USA (Gawda & Czubak, 2017; Torgersen et al., 2001).

Similarly taking it a step further in context of Pakistani society it is imperative to understand that being a developing country Pakistan is undergoing massive changes during the past decade. Factors like socio-political situation, unemployment, financial insecurity, inflation, terrorism, natural calamities (including floods and earthquakes), rapidly changing norms and values (like a shift from joint to nuclear families), rapid urbanization, changing role of women (working both at home and outside), discomfort of men with these changing

roles of women, a conflict in shifting from traditional gender role attitudes to modern gender role attitudes (leading to hostility), uneasiness with concept of adapting to these changes, a constant pressure (both on students and parents) to perform high academically is grossly affecting the mental health of larger segments of population. All these factors are leading to significant distress as Pakistan is society that on the whole is in the process of transition /change. This can also be one of the reasons that a significant number of individual ($N = 52$) from the non-clinical (community sample) reported of attempting suicide during the preceding six months and they were also not taking any treatment for that. This also sheds light on the fact that despite of all advancements, mental health in Pakistan is still considered a taboo and an area that has not been properly attended and awareness about it at the level of masses (including both policy makers and general public) is lacking.

Another trend that is apparent from findings regarding prevalence is element of comorbidity between PDs. Findings (Table 27) confirms co-morbidity among PDs is much high for the clinical sample as compared to the non-clinical sample (interestingly still present in non-clinical sample). The presence of comorbidity in personality disorders has been well documented by previous researchers (Beckwith, Moran, & Reilly, 2014; Hayward & Moran, 2007; Keown, Holloway, & Kuipers, 2002; Newton Howes et al., 2010). Meta-analytical studies indicate that the reported prevalence of existence of more than one personality disorder varies from 50 % to 85 % (Zimmerman et al., 2005). This comorbidity has been attributed to shared etiological factors which may include genetics, biological, environmental, psychological and temperamental factors (Hayward & Moran, 2007). Researchers also argue that presence of one personality disorder makes an individual vulnerable for developing another personality disorder (Coid et al., 2006). Similarly researches also attribute co-morbidity to complication models which argue that though two disorders represent distinct entities, but they are related to one another as one disorder remains in a remitted form and has a scar or complicated effect (Dolan-Sewell, Krueger, & Shea, 2001). Co-morbidity was apparent in both clinical and non-clinical groups with varying degree of complexity and severity. Researches indicate that presence of more than one personality disorder is likely to result in poor treatment outcomes (Cailhol et al., 2016; Tyrer & Johnson, 1996). So, it is crucial and alarming that in this case, where

PDs were not being assessed properly treatment plans and interventions are not taking into account this crucial factor what outcome is this process likely to yield. This calls for a dire need to sensitize and train clinicians to incorporate personality assessment and make it a regular part of mental health setups.

The over high prevalence of personality disorders clearly indicates that they need to be assessed properly at the time of diagnosis and designing of intervention plans. It has been evident that personality disorders are often overlooked and ignored by professionals as they are considered to be manifestation of other mental illness to be rated previously on Axis I (Zimmerman et al., 2008). Researchers further furnish evidence that as the symptoms of Axis I disorder improve the level of associated personality pathology decreases (Zimmerman, 1994). As a consequence, personality disorders are not assessed and diagnosed and they continue to prevail even after alleviation of other disorder symptoms (Zimmerman et al., 2008). Though widely practiced this approach of delaying assessment and diagnosis of personality disorder excludes individuals who either do not improve or dropout from the treatment. So, it becomes critical to assess personality disorders at the initial stage because it has been strongly linked up with shortened life expectancy as well as poor adherence to treatment (Fok et al., 2012). Details about prevalence and comorbidity apparent in personality pathology can be helpful in modification, adaptation and designing of the treatment plans (Dowsett & Craissati, 2020).

In order to furnish evidence for third and fourth objective of the study, prevalence was established. Findings indicated that across broad band scales significant difference was apparent for externalizing behavioral problem in case of clinical sample where it was more prevalent among males in comparison to females for ASR. Non-significant difference was apparent in case of internalizing behavioral problem. Across total problem as well, more males exhibited problematic behavior. Across narrow band scales of withdrawn behavioral problem and somatic complaints non-significant differences were apparent which is in contradiction to existing literature. As Epidemiological studies using both DSM and ICD for establishing the prevalence indicate that problems like major depression, dysthymia, Generalized Anxiety Disorder are more prevalent in females in case of clinical samples (Slade & Watson, 2006). For the present study more females had anxious depressed problem in case of clinical sample. Other researches also highlight the fact that the chances

of developing anxiety and depression is twice in females as compared to males (Wright et al., 2013). Similarly, attention problem, aggressive behavior, rule breaking, and intrusive problem behavior was also more prevalent among males for clinical sample (for ASR). Non-significant differences were apparent in case of withdrawn behaviors, somatic complaints and thought problems. In comparison for non-clinical sample, only significant difference was apparent across externalizing behavioral problems where males had more externalizing behavioral problems. Non-significant differences were apparent across all other broad and narrow band scales in case of non-clinical sample for ASR. Relatively scant literature suggests there exists a difference in approach among males and females for dealing with problem behaviors.

Difference in socialization pattern is considered to be a key reason behind it. Women are more likely to seek help as compared to men for disorders that are present equally across gender. In contrast for males these behaviors are more likely to be exhibited in aggressive forms (Paykel, 1991). This can also explain the reason for results obtained in present research non-significant differences were apparent across clinical and non-clinical sample for internalizing behavioral problems. It is also equally important to consider that prevalence across gender needs to be interpreted with caution. As many prior studies associate internalizing problems with females and externalizing problems with males ignoring the fact that in clinical set up mostly in case of child psychopathology, more male children seek treatment for mental health problems whereas for adults more females tend to seek treatment. So, treatment seeking is also dependent on biological sex of the individual (Paris, 2007).

In addition to this, culture also has an important role to play in determining which gender has access to mental health services which has been grossly ignored in past researches. Another probable reason that can account for these results is that experiencing problems like crying, low mood, lack of interest and energy (which are typical features of internalizing behavioral problems) are some features that are not considered typical for males in Pakistani society. So, if any such behavior is exhibited by them it is more likely to be identified as abnormal and early consultation can be sought for it. Females on the other hand are more open in reporting these symptoms. Moreover, the societal burdens and changes (discussed in earlier paragraphs) which males and females are experiencing are

likely to affect both equally. Yet it was decided to see the interplay of these variables at the level of mean differences for the problems that were found to be equally prevalent among males and females.

For the informant measure (ABCL), the results were inline with the societal/cultural expectation for clinical sample. As reported by informants, more females had anxious depressed, withdrawn and somatic complaints. In all internalizing behavioral problems were more prevalent among females and externalizing (including aggressive, rule breaking and intrusive problems) were more prevalent among males. These findings are inline with existing literature which provides evidence that with in clinical setups internalizing problems are likely to be more prevalent among females whereas externalizing problems are likely be to more prevalent among males (Slade & Watson, 2006, Wright et al., 2013). For non-clinical sample across informant measure an opposite trend was apparent. Males had more internalizing behavioral problems (including somatic complaints) and non-significant difference was apparent on externalizing behavioral problems which is again in contradiction with existing literature. It can be attributed to similar reason of typical acceptable behaviors of males and females and more reporting of any behavior that is not expected to acceptable for any particular gender.

Chi-square analysis for prevalence across gender for PDs indicated that except for borderline, NOS depressive and NOS aggressive, all other PDs were more prevalent among males for clinical sample. Due to less prevalence of PDs (frequency count of less than five), chi-square could only be performed for paranoid, BPD, avoidant and OCPD where the differences were non-significant for non-clinical sample. Both findings are in line with existing literature. For clinical samples researches have consistently found PDs to be more prevalent among males (Gawda & Czubak, 2017; Samuels et al., 2002). Further among all PDs paranoid PD was found to be most prevalent among males (20.59 %) followed by schizoid (20.34 %). Both these disorders are from cluster A. Gawda and Czubak (2017) have also found similar results with Cluster A disorders to be more prevalent among males. This specifically holds true for paranoid and schizoid PDs (Torgersen et al., 2001). With reference to community samples that includes non-clinical samples PDs have been recorded to be equally prevalent among males and females in prior researches as well (Coid et al., 2006; Paris, 2007).

Chi-square across age for broad band scales of ASR indicated that for clinical sample significant differences exist across internalizing and externalizing behavioral problems where individuals in late adulthood scored higher in comparison to individuals in early adulthood. High prevalence of internalizing behavioral problem in late adulthood (also apparent for narrow band scales of anxious depressed) is in line existing literature (Paris, 2007) where the transitions and stressors associated with age are considered to be a reason for increase in internalizing behavioral problems with age. The striking finding was with reference to externalizing behavioral problems. Again, it would be helpful to interpret these findings within cultural context where increase in age is paired with more freedom and liberty as individual gets in a position where he /she is no more accountable to anyone for the behaviors which he/she is exhibiting and power dynamics change. Further, cumulative presence of frustration, feelings of helplessness and revenge towards society is likely to increase with age which can further precipitate externalizing behavioral problems and revenge seeking attitude (as similar trend was apparent for non-clinical sample as well). For non-clinical sample non-significant differences were apparent on all other problem behaviors.

Across age for ABCL, non-significant differences were apparent for broad band scale of both internalizing and externalizing behavioral problems for clinical sample (which is in contradicting to what was apparent in case of ASR where both these differences were significant). For non-clinical sample significant difference was apparent on internalizing behavioral problems where individuals in early adulthood scored higher (which is again in contradiction with ASR, where this difference was non-significant). This again highlights the fact that different informants can provides different picture of the problem with each brining in unique information so its equally important to probe these differences in order to come up with a comprehensive picture of the problem along with underlying reasons behind it.

Across age in case of ADP IV, non-significant differences were apparent for clinical sample except for histrionic and avoidant PD. Non-significant differences were apparent across all PDs for non-clinical sample. These findings are inline with existing literature as PDs tend to have a pervasive and enduring pattern across age (Tyrrer, 2018; Widiger, 2011). Though the functional impairment associated with it might show variations

because of different intervening variables like treatment history, familial support, and understanding of problem but yet the pervasiveness and enduring pattern of PDs tend to continue.

Following the procedures similar to Zimmerman et al. (2005) an attempt was made to establish the median number of symptoms for PDs across each category of problem behavior (that includes normal, borderline, and clinical) for both clinical and non-clinical sample (see Table 32 & 33). Findings were inline with existing literature with cluster B symptoms being most prevalent for both samples. Further within cluster B, BPD symptoms were most prevalent. BPD has shown strong co-morbidity with mental health problems (Zimmerman et al., 2005; Coid et al., 2006). Another interesting trend apparent was in terms of second highest prevalence. For clinical sample, cluster B was followed by cluster A in terms of prevalence with schizotypal symptoms being highest. For non-clinical sample cluster B was followed by followed by cluster C with dependent and OCPD symptoms being most prevalent. Findings are both unique and consistent with previous literature. Similar in terms of cluster B and unique in terms of schizotypal symptoms being most prevalent instead of paranoid (which past literature suggests) for clinical sample and both dependent and OCPD for non-clinical sample. Presence of symptoms of other PDs in problem behaviors again draws attention towards the fact that it is important to consider and design intervention programs that incorporate these symptoms which though can be below the threshold needed for diagnosis but are likely to be present and interfere and alter the course of treatment (Newton Howes et al., 2010; Tyrer, 2018).

So, with reference to prevalence it can be inferred that a high degree of comorbidity exists across narrow and broadband scales of ASR and ABCL for both samples again providing the evidence for underlying common structure of psychopathologies. With reference to, PDs borderline was found to be most prevalent in terms of median number of symptoms across problem behaviors for both samples. Different findings that can be best attributed and explained with reference to cultural context were apparent across demographic variables for both samples.

Discussion for correlation and regression

The results from hypotheses three to eight are explained below. In order to assess relationship between PDs (Cluster level) and ASR syndrome-based scale (both broad and narrow band scales) Pearson product moment correlation was computed for both clinical ($N = 408$) and non-clinical sample ($N = 487$). Findings were in line with the objectives and hypotheses. Table 34 indicates significant positive relationship was apparent between Cluster A, B, C, NOS Depressive, and NOS Passive Aggressive and Internalizing (values ranging from .21** to .56 for clinical sample and .45** to .54** for non-clinical sample) and externalizing behavioral problems (values ranging from .31** to .58** for clinical sample and .12** to .19** for non-clinical sample). These findings are also consistent with existing body of literature. These relationships have been justified in the light of existing literature below:

Cluster A, B, C, NOS DE, NOS PA and broad band scales of ASR (i.e., Internalizing behavioral problem and externalizing behavioral problem)

The significant positive relationship between PDs and broad band scales can be justified in the light of personality diathesis model (Skodol et al., 2011; Widiger, 2011). Three decades of extensive research on personality pathology have led researchers to conclusion that PDs exhibit themselves in form of traits that manifest themselves early in childhood and remain consistent during adolescents and adulthood. These traits lead to social dysfunction and create “vulnerability”. These make an individual more prone to develop other psychological disorders or abnormal behaviors (Widiger, 2011). The diathesis model proposes that diathesis not only makes one more prone to develop problems but also increase the intensity of the problems along with increasing the chances of reoccurrence of these disorders. Thus, this diathesis or vulnerability factor is activated under any stressful situation and further precipitates other psychological disorders (Caspi et al., 2014; Tyrer, 2018). Two major domains under which psychopathologies have been grouped together include internalizing and externalizing behavioral problems (Kotov et al., 2011). Though both internalizing and externalizing behavioral problems appear to be opposite in nature and manifestation yet studies indicate that they are positively related with each other (Achenbach, 2006) which is also apparent in present research (as indicated by correlation value of .34** for both clinical and non-clinical sample). Thus, keeping this

in mind, it can be concluded that both PDs and broader domains of problematic behaviors (Internalizing and externalizing behaviors) are positively related to each other.

Based upon the findings of existing literature and correlation, hypotheses regarding predictive relationships between PDs and broad band problem behaviors (internalizing and externalizing behavioral problems) were formulated. Most of the results across narrow band scales were in similar direction to the corresponding broad band scales. So, the present discussion revolves around the broader band scales and two narrow band scales of thought and attention problems.

Predictive role of paranoid, schizoid, and schizotypal PDs in internalizing, externalizing and total behavioral problems for clinical and non-clinical samples

It was hypothesized that Cluster A personality disorders (including paranoid, schizoid, and schizotypal PDs) will positively predict broad band problem behaviors (internalizing, externalizing and total problem behavior) for both clinical and non-clinical samples. Stepwise regression was carried out to test this hypothesis. Findings indicated that for clinical sample paranoid and schizotypal PDs predicted internalizing behavioral problems in case of clinical sample whereas paranoid and schizotypal PDs predicted internalizing behavioral problems for non-clinical sample. Difference in predictors can be accounted to different samples that includes both clinical and non-clinical sample as previous research also indicate that characteristics of the sample play a significant role in determining prevalence and relationships between variables (Gawda & Czubak, 2017).

Much research has been carried out with reference to paranoid PDs from Cluster A, which emerged as a common predictor of internalizing behavioral problems in case of both clinical and non-clinical sample in present research as well. A strong relationship is evident between paranoid and internalizing behavioral problems like depression in previous researches as well (George et al., 2017). It has been documented that presence of cluster A; PDs increases the likelihood of relapse in case of depression as well for clinical samples. It's attributed to the fact that presence of cluster A features acts as risk factor making individuals more prone to problems like mood disturbance which is a central feature of internalizing behavioral problem. Cluster A has been documented to play a predictive role in onset of affective and mood disorders as well (Kendler, McGuire,

Gruenberg, & Walsh 1995). Furthermore, despite of taking anti-depressant medicine, cluster A presence increase the likelihood of increased perception of stress leading to significant impairment (George et al., 2017). Further, both schizoid and schizotypal PDs have been found to play a significant role in persistence of depression which falls on the domain of internalizing behavioral problem (Skodol et al., 2011).

Similarly, findings of stepwise regression analysis indicated that schizotypal, paranoid and schizoid PDs positively predicted externalizing behavioral problems in case of clinical sample. In case of non-clinical sample only paranoid PD predicted externalizing behavioral problems. Past researches have linked Cluster A PDs strongly with aggressive behaviors (Lee, 2017). Presence of cluster A in general and paranoid PD in specific has been found to be a strong predictor of aggression which is a key feature of externalizing behavior problems (Berman, Fallon, & Coccaro, 1998). Studies with clinical sample specifically indicate that cluster A emerge as a strong predictor of aggressive behaviors (Lee, 2017). Presence of cluster A is likely to create problems in interpretation of stimuli in surroundings that lead to exaggerated expression of emotions often apparent in the form of externalizing behavioral problems (Gracie et al., 2007).

Step wise regression analysis also indicated that schizotypal, paranoid and schizoid PDs predicted total problem behavior in case of clinical sample. Whereas for non-clinical sample schizotypal PD and paranoid PD predicted total problem behavior. As discussed earlier, in can be concluded that presence cluster A PDs is likely to create vulnerability in development of problem behaviors that can be both internalizing and externalizing (Lee, 2017, Widiger, 2011).

Predictive role of borderline, histrionic, narcissistic and antisocial PDs in internalizing, externalizing and total behavioral problems for clinical and non-clinical samples

In order to assess the predictive role of Cluster B PDs (borderline, histrionic, narcissistic and antisocial PDs) in prediction of internalizing and externalizing behavioral problems among clinical and non-clinical sample step wise regression analysis was carried out. Findings indicated that in case of clinical sample BPD and narcissistic PD predicted internalizing behavioral problems. Whereas in case of non-clinical sample only BPD

predicted internalizing behavioral problems. It's worth mentioning here that among all PDs, BPD is considered to be one of the most prevalent PD in both clinical and non-clinical sample and for the same reason it is considered to be among one of the most researched PDs along with ASPD and dependent PD (Hassan, 2012; Widiger & Trull, 1993).

The finding mentioned above are in line with existing literature. BPD has been strongly linked with problems like depression and anxiety that constitute internalizing behavioral problems (George et al., 2017). Presence of features of cluster B in general and BPD in particular create vulnerability, where an individual gets overly sensitive to environmental events and perceives them as threatening or as source of potential harm to self. As a consequence, this puts an individual at risk of developing internalizing behavioral problems. Similar reasons have been given with reference to borderline personality disorder which has been strongly linked with depression (Rao & Broadbear, 2019). Presence of BPD makes prognosis for depression poor as it alters the course of illness by aggravating feelings of emptiness, self-destructiveness and self-criticism (Rogers, Widiger, & Krupp, 1995).

With reference to externalizing behavioral problems, presence of cluster B has also been linked with behavioral disinhibitions, harming to self and others, acting out tendencies and behavioral disinhibitions which contribute to externalizing behavioral problems (Hayward & Moran, 2007). Researchers associate these with cluster B in general and anti-social personality disorder in particular that emerged as a common predictor in case of both clinical and non-clinical samples. Researchers even argue that comorbidity among two is so high that it might be attributed to criterion overlap between the two (Rounsaville, Kranzler, & Ball, 1998). Similarly, a strong relationship has been documented between cluster B and rule breaking that is a core component of externalizing behavioral problems behaviors which is attributed to the common underlying feature of impulsivity associated with both (Tyrer, Gunderson, Lyons, & Tohen, 1997).

In case to prediction of total problem behaviors, similar predictors emerged. For clinical sample, BPD, ASRD, and narcissistic emerged as strongest predictors. Whereas, for non-clinical sample both BPD and ASPD emerged as strongest predictors. These results can be best understood by similar findings that furnish evidence for underlying

distress and impulsivity that individual experience because of presence of BPD, narcissistic and ASPD traits which makes an individual more prone to develop both internalizing and externalizing behavioral problems (Piqueras et. al., 2019).

Predictive role of dependent, obsessive compulsive, and avoidant PDs in internalizing, externalizing and total behavioral problems for clinical and non-clinical samples

Similarly, another hypothesis aimed to assess the predictive role of Cluster C PDs (dependent, obsessive compulsive, and avoidant PDs) in prediction of internalizing and externalizing behavioral problems among clinical and non-clinical sample. Step wise regression analysis was carried out. Findings indicated that in case of clinical sample only dependent PD predicted internalizing behavioral problems. Whereas in case of non-clinical sample both dependent and avoidant PDs predicted internalizing behavioral problems. From Cluster C PDs, dependent PD is most researched and understood disorder (Faith, 2009).

Cluster C is referred to as anxious and fearful cluster. So, presence to these traits is likely to contribute towards problems like anxiety and depression that fall on the continuum of internalizing behavioral problems. Studies of the interpersonal dependency-anxiety link in college students and community adults have shown that people with dependent personality disorder have high baseline levels of trait anxiety (Priel & Besser, 2000) and show significant increases in physiological arousal and self-reported anxiety in response to interpersonal conflict or relationship disruption (Allen, Horne, & Trinder, 1996; Ng & Bornstein, 2005).

Similarly, for externalizing behavioral problems, both obsessive compulsive and dependent personality disorders emerged as strongest predictors in case of clinical sample. For non-clinical sample dependent PD emerged as only predictor of externalizing behavioral problems from cluster C. The finding regarding dependent PD predicting externalizing behavioral problems is unique. But considering the fact that people with DPD tend to agree more with others because of underlying insecurities regarding fear disapproval and rejection by significant others. Because of these insecurities they are reluctant to voice their opinion often fearing abandoned which leads to build up of anger that can be directed both towards self and others. Similarly, with reference to OCPD, it's

important to understand that it is marked by presence of hostility and competitiveness. They are more likely to get aggressive when either they are not able to achieve what they strive for or others do not act accordingly (Greve & Adams, 2002).

In case of total problem behavior for both clinical and non-clinical sample dependent PD emerged as significant predictor which can be attributed to underlying insecurities contributing to internalizing behavioral problems and hostile aggression associated with a constant desire to seek approval leading to externalizing problems (Dervic et al., 2007).

In the light of existing literature predictive role of Cluster, A PDs that include paranoid, schizoid and schizotypal PDs was tested for narrow band scales of attention and thought problems.

It was hypothesized that Cluster A PDs (paranoid, schizoid and schizotypal) will positively predict attention problems and thought problems for both clinical and non-clinical samples. Stepwise regression analysis indicated that in case of clinical sample schizotypal, paranoid, schizoid PDs predicted attention problems whereas for non-clinical sample schizotypal and paranoid PDs predicted attention problems. These findings are supported by previous literature as well where from cluster A schizotypal and paranoid have been found be closely associated with attention problems (Eguskiza, Bellón, & Mora, 2018). This can also be attributed to fact that people with Cluster A PD are overly attentive to social environments and keep on constantly screening them for possible danger and threat. This ultimately leads to problems related to attention (Lewis & Ridenour, 2020).

Similarly, both paranoid and schizotypal PD predicted thought problems in case of clinical sample. Whereas for non-clinical sample only schizotypal personality disorder predicted thought problems. This relationship is also apparent in past researches where cluster A has been strongly linked with a presence of suspicions regarding social relationships and surroundings. Even minor day to day problems are catastrophized to extent where an individual start believing that others are trying to plot against him/her that further leads to significant problem in relationships. This might be apparent in form of thought problems (Lewis & Ridenour, 2020). The difficulties that plague individuals diagnosed with paranoid personality disorder are related to a rigid approach at the level of

thoughts to the environment, an inability to relax defenses in order to place ambiguous situations into a more accurate context, and to take into account information that differs from their concerns – the latter of which is sometimes described as a bias against disconformity evidence (Moritz & Woodward 2007).

Predictive role of borderline and dependent PD in narrow band scale of anxious depressed, withdrawn, somatic, attention, thought, aggressive behavior, rule breaking, and intrusive behavioral problems

Two of the most well researched disorders among PDs are BPD and dependent personality disorder (Zimmerman et al., 2005; Coid et al., 2006). For this reason, it was hypothesized that both borderline and dependent PD will positively predict narrow band scales (anxious depressed, withdrawn, somatic, attention, thought, and intrusive behavioral problems). Stepwise regression analysis confirmed this relationship for both (except for intrusive behavioral problem in case of BPD). Empirical findings suggest that presence of BPD is likely to make individual vulnerable for other mental health problems. Another study found that among 180 with diagnostic label of generalized anxiety disorder 20 (11.1 %) had BPD. Among 142 outpatients with panic disorder had 24 (16.9%) had BPD. Among 239 with social phobia 44 (18.4 %) had BPD. Among 92 with PTSD 24 (26.1 %) had BPD. Among 85 with alcohol disorders 15 (17.6%) had BPD (Zimmerman et al., 2005). From the problems mentioned above pain disorder, social phobia and PTSD show positive relationship with anxious depressed, withdrawn and somatic complaints.

Dependent PD on the other hand predicted all narrow band scales positively. The finding regarding dependent PD predicting narrow band scales of aggressive behavior, rule breaking and intrusive behavioral problems. Other findings of dependent PD predicting anxious depressed, withdrawn, somatic, thought and attention problems are in line with existing literature (Coid et al., 2006). But considering the fact that people with DPD tend to agree more with others because of underlying insecurities regarding fear disapproval and rejection by significant others. Because of these insecurities they are reluctant to voice their opinion often fearing abandoned which leads to build up of anger that can be directed both towards self and others. Similarly, with reference to OCPD, it's important to understand that it is marked by presence of hostility and competitiveness. They are more likely to get

aggressive when either they are not able to achieve what they strive for or others do not act accordingly (Greve & Adams, 2002).

Keeping in view the above findings, it can be summarized that paranoid, borderline and dependent PDs emerged as strongest predictors of problem behaviors in both clinical and non-clinical sample. This might be one of the reasons for them being most researched as they show stronger relationships with other problem behaviors in comparison to other PDs. These findings have special relevance to clinical setups of Pakistan. Though problems like depression and anxiety are among the most prevalent problems but when it comes to treatment important precursors of these problems (PDs as evident by present research as well) are grossly ignored. This again emphasizes that fact that PDs though are not assessed but have an important role on onset and maintenance of other problem behaviors. Understanding of psychopathology will continue to be incomplete if PDs are not incorporated properly.

The subsequent portion of discussion takes into account factors that are likely to impact the relationship between PDs and problem behaviors. Considering the relevance of variables to Pakistani society and keeping in view the existing literature, moderation analysis was carried out to test the moderating role of adaptive functioning, gender and age in relationship between PDs and problem behaviors. To keep the analysis comprehensive, and based upon the confirmation of DSM IV cluster level PD factor structure analysis was restricted to clusters rather than individual PDs (similar results were apparent when explored for individual PDs as well). Similarly, for problem behaviors analysis was carried out for the broad band scale of internalizing, externalizing, and total problem behaviors and two narrow band scales of attention and thought problems only (as these have been retained as independent problems).

Moderation by adaptive functioning

In order to test the moderating role of adaptive functioning, gender, and age in relation between PDs (Cluster A, B, C, NOS DE, NOS PA), broad band scale (Internalizing and externalizing) and narrow band scales (thought and attention problems) of ASR moderation analysis was carried out for both samples.

Findings indicated that adaptive functioning moderated the relationship between Cluster A, C, NOS PA, NOS DE and Internalizing behavioral problems in case of clinical sample. Whereas for non-clinical sample only significant moderation was apparent in relationship between cluster A and internalizing behavioral problem. This can be explained further in a way that relationship between Cluster A and internalizing behavioral problems was strongest at lowest level of adaptive functioning and vice versa. Similar pattern was apparent for all other moderations which were significant at the level of Cluster PDs and internalizing behavioral problems. These findings can be best explained taking into account the nature of each disorder. Cluster A is marked by presence of overly skeptical attitude towards others. Paired together with poor support and understanding offered by significant others in the surrounding (that includes key domains of adaptive functioning) these are likely to make an individual more depressed and sadder further strengthening the belief of being misunderstood and avoiding others leading them to stay aloof which further can add to the emotional distress leading to poor management (Morey, 1988).

In contrast, adaptive functioning did not moderate the relationship between cluster B and internalizing behavioral problems for both samples. Taking into account the manipulative and impulsive tendencies present in cluster B it is important to understand that tendency to deliberately withhold information and lie is very high in individuals with cluster B. Relying on self report measure to assess relationships with others could be one of the methodological limitations of present study in this case. Moreover, empirical findings indicate that individuals with cluster B disorder in general and BPD and ASPD in specific are not much concerned about disregard for the right of others. So, despite of striving for attention and self mutilating behaviors apparent in cluster B, these individuals are not much concerned with maintaining relationships with others. Additionally, stress in family members having a relative with BPD report of experiencing more stress and emotional issues (Kay, Poggenpoel, Myburgh, & Downing, 2018). Moreover, researches working to enhance understanding of cluster B PDs consider the role of adaptive functioning specifically relationships with parents and other family members on onset of cluster B PDs to be significant as they be best understood from a bio-social model of Linehan (Khan & Kamal, 2020; Valentin et al., 2015). So perhaps a different model testing

the role of adaptive /maladaptive functioning in onset of PDs could perhaps yield a better result.

Further adaptive functioning moderated the relationship between Cluster C, NOS depressive, NOS passive aggressive PDs and internalizing behavioral problems in case of both samples. Further taking into account the features of these disorders including reluctance to disclose information, fear of rejection, fears related to be disgusted in front of public makes the individual more prone to develop internalizing behavioral problems. Poor adaptive functioning in this case serve as a missing piece of the puzzle in this relationship. When present it is likely to aggravate the situation by adding on the already existing fears and emotional dysregulations (Fossati et al., 2006; Valentin et al., 2015).

Taking externalizing behavioral problems as an outcome, adaptive functioning only moderated the relationship between cluster A in case of clinical sample. All other moderations were non-significant in this case. Presence of cluster A symptoms makes an individual more prone to have aggressive and acting out tendencies, taking the individual at risk of developing externalizing behavioral problems (Schmeelk et al., 2008). Paired with poor adaptive functioning this relationship is likely to become stronger. Similar trend was not apparent in case of non-clinical sample furnishing the evidence that some other protective factors like positive coping and emotional regulation strategies might play a more protective role in those cases (Levine & Smolak, 2015).

In case of thought problems as an outcome, adaptive functioning did not moderate the relationship with PDs. Thought related problems are relatively not much explored in comparison to other problem behaviors. Non-significant moderation of adaptive functioning indicates that other factors that might include the level of reality contact and extent to which individual is able to accurately perceive the information might play a more crucial role. Organization and articulation at the level of thoughts also raises serious questions. Cases where individuals experience both thought problems and PDs simultaneously might have more difficulty in making sense out of reality. Moreover, how accurately they are able to organize and present their thoughts is also a question. So, relying on the method of self report again has its own limitations. Similarly, taking attention as outcome, adaptive functioning moderated the relationship in case of Cluster A, B, C, NOS

PA and NOS DE for clinical sample. In case of non-clinical sample adaptive functioning moderated the relationship between cluster A, NOS depressive, NOS passive aggressive and attention problems. Like internalizing behavioral problem, similar pattern was apparent as the relationship between PDs and attention problem was strongest at lowest level of adaptive functioning. Previous researchers have also found that feelings of support, trust and companionship from the closer circle that includes friends, family, spouse, and colleagues offer an individual support that helps them to cope with the problem. In contrast presence of conflicts with these significant others adds to the turmoil experienced by the patient. The experience of having symptoms of PDs is likely to create vulnerability for developing problems related to attention. Positive support from others is likely to create a positive impact in making this association weak whereas absence of support from others is likely to make this relationship stronger (Reimherr et al., 2010).

These findings related to adaptive functioning have more relevance within collectivistic cultures like Pakistan where dependence on these social circles and need for attachment is really high. Even these social groups are an integral part of one's identity. So, functioning and relationships in these areas have strong tendency to shape the overall appearance of psychopathology. As invalidation of feelings and lack of understanding with significant others could enhance the emotional dysregulation experienced by individual which could further strengthen the relationship/ association between existing psychopathologies (PDs and problem behaviors in this case). Under these circumstances not catering factors including functioning in these areas is likely to yield poor treatment outcomes and further strengthen the relationship between PDs and other problem behaviors.

Another finding consistent across both samples is non-significant moderating effect of adaptive functioning in case of Cluster B PD with all broad and narrow band scales. Similarly, in case of all clusters of PDs and thought problems, non-significant moderation by adaptive functioning was apparent. Though these trends need further exploration to drawn conclusive evidences but yet the consistent pattern apparent across both samples (collected independently) is indicating there exist common set of underlying reasons to it. One of the plausible explanations in case of thought problems can be underlying severity of the problem itself. Similarly, in case of cluster B as well, the concerns regarding

emotional management are more pressing at the level of individual. These trends need further exploration. Another plausible and appealing explanation in the light of existing literature is to perhaps test a different model that focuses on studying the role of adaptive functioning in onset of PDs, as it could account for better explanation and it can be a potential area to explore for future researchers.

Moderation by gender

Another objective of the present research was to explore the moderating role of gender in relationship between PDs and problem behaviors. Taking internalizing as an outcome, findings confirmed moderating role of gender in case of PDs (Cluster A, B, C, and NOS PA) for clinical sample. The slopes for males were steeper as compared to females for clinical sample. Non-significant findings were apparent for non-clinical sample. Similarly, for clinical sample in case of externalizing as an outcome, only significant findings were across cluster B and NOS PA. Whereas non-significant relation was apparent for non-clinical sample. Across thought problems non-significant moderation by gender was evident for clinical sample but for non-clinical sample gender significantly moderated the relationship between PDs (cluster A, cluster C, NOS depressive and NOS passive aggressive) and thought problems. Across attention problems, moderation was apparent all PDs (cluster A, cluster B, cluster C, NOS depressive, and NOS passive aggressive). Non-significant relationship was apparent in case of non-clinical sample.

To conclude, in all cases where moderation was significant the relationship between PDs and problem behavior was stronger for males in comparison to females for both samples. Though multiple plausible explanations could provide reason for these findings but one reason that can best explain these differences revolve around the cultural factors. As it is commonly understood the severity and frequency of both PDs and problem behavior's is much higher in clinical sample as compared to non-clinical sample so pairing it with gender roles can enhance the interpretation of these results. Males in Pakistani society are reluctant to express their distress, feelings and emotions as a consequence it puts them at the risk of developing many psychological problems. In addition to this, considering the patriarchal society of Pakistan where both males and other members of the society consider "male" to be sole bread earner of the family, puts an additional burden on

them. Moreover, taking care of the family and yet the expectation of facing all troubles and difficulties alone by remaining composed add to their stressors putting them at risk of mental health problems. So, in the present study as well, having symptoms of PDs and being male puts an individual at a greater risk of developing problem behaviors. Moreover, another leading factor could be higher prevalence of PDs in males in comparison to females as well which inline with previous researches is as well (Hassan, 2012).

Moderation by age

Another objective of present research was to test the moderating role of age in relationship between PDs and problem behaviors. Significant interaction effect of age was apparent for NOS passive aggressive and internalizing behavioral problems for clinical sample. Similar trend was apparent for moderating effect of age in association between clusters A, C and NOS passive aggressive. Taking attention as an outcome, age moderated the relationship for NOS passive aggressive PD. A unifying theme apparent was regarding nature of relationship where slope was steeper for young adulthood as compared to middle and late adulthood. Though PDs tend to show a pervasive pattern across age but steeper curve in case of early adulthood might be because of additional burdens that individual experiences because of PDs. Adjusting with the symptoms of PDs and facing repercussions associated with it including poor interpersonal relationships, experiencing the transition of moving to adulthood, difficulties in completing academic requirements, choosing a career are all likely to occur simultaneously during early adulthood (Harris et al., 2017). So, the relationship between PDs and problem behaviors is likely to get stronger because of these additional factors during early adulthood. In case of non-clinical sample age did not moderate the relationship between PDs and problem behaviors that can be attributed to number of other protective actors including positive coping strategies and better emotional regulation.

To conclude, despite of differences across sample adaptive functioning, gender and age are crucial factors that determine the interplay between PDs and problem behaviors and account for overall manifestation of psychopathology.

Mean difference across gender, age, and education

The present research also aimed at establishing mean differences across gender and age for study variables for both clinical ($N = 408$) and non-clinical ($N = 487$) sample (Hypothesis 9, 10, 11, 12, 13, & 14). Comparison of mean across gender for clinical samples in case of broadband scales across ASR (internalizing, externalizing and total problem) indicated that significant mean differences were apparent across internalizing where females scored higher as compared to males and externalizing behavioral problems as well where males scored higher as compared to females. Non-significant differences were apparent for total problem score. For narrow band scales significant differences were apparent for anxious depressed problems and somatic complaints where females scored higher as compared to males whereas for aggressive behavior rule breaking and intrusive problems males scored higher as compared to females. Non-significant mean differences were apparent for attention and thought problems. Similar trends were apparent for ABCL (informant measure) except for total problem scale where males scored higher as compared to females.

For comparison across non-clinical sample significant mean differences were apparent on broad band scale of externalizing behavioral problem where males scored higher as compared to females. All other differences were non-significant. This can be attributed to low prevalence of disorders among non-clinical sample.

The findings of present research are consistent with existing body of literature (Krueger & South, 2009). Studies focusing on genetic basis of behavioral problems highlight the fact that females are more prone to develop problems like depression and anxiety. Somatic complaints have also been exclusively linked with females which are considered to be manifestation of underlying psychological distress. Similarly, strong genetic evidences have been put forward for exhibition of more overt behaviors among males that make them more prone to exhibit anger and rule breaking behaviors (Caspi et al., 2003; Kendler et al., 2003). Research focusing on the role of psycho-social factors attributed it to the patterns of socialization (Klonsky, Serrita, Turkheimer, & Oltmanns, 2002). Literature suggests that expression of intense emotions like anger and rebelliousness is typical masculine characteristic and males tend to exhibit these behaviors as expected of their gender roles. Similarly, females tend to be more covert and express distress in form

of anxiety and somatic complaints that is considered to be typical of their gender stereotype (Breux, Harvey, & Candelas, 2014).

Taking this a step further and comparing these findings with the results of prevalence leads to an interesting picture. Non-significant difference was apparent in terms of prevalence of internalizing behavioral problems across gender for clinical sample yet when it comes to mean differences females scored higher as compared to males for clinical sample. This again draws attention towards cultural manifestation of psychopathology in terms of reporting symptoms. Females are more likely to talk and endorse problems that are internalizing in comparison to males. Similarly, males are more likely to report aggressive behaviors (as aggression is considered a masculine trait in Pakistan) rather than co-morbid internalizing behavioral problems.

For clinical sample in case of PDs males scored higher on Cluster A (paranoid, schizoid and schizotypal) PDs. Similar trend was apparent for cluster B as well where males scored higher on anti-social, borderline, histrionic and narcissistic PD as compared to females. Same trend was apparent for cluster C where males scored higher on avoidant, dependent, and obsessive-compulsive PD. On overall clusters as well, males scored higher as compared to females. Only non-significant difference was with reference to NOS dependent PD. Past literature provides empirical support for presence of cluster A personality disorder, anti-social and avoidant personality disorder to be more prevalent in males as compared to females (Corbitt & Widiger, 1995; Klonsky, Jane, Turkheimer, & Oltmanns, 2002). Contrary to the existing literature, where borderline, histrionic and narcissistic personality disorder have been strongly linked to females the present research finds them to be more prevalent among males. But a growing body of literature suggests that in practice clinicians are biased to link these disorders to women and tend to over diagnose them (Widiger, 1998). Researchers also propose that presence of diagnostic constructs that are gender biased are a potential threat to the scientific and clinical validity of DSM PD classification system (Klonsky, Jane, Turkheimer, & Oltmanns, 2002).

Studies using self-report measures to assess PD usually report that men have a more tendency to endorse criteria of PDs as compared to females (Klonsky, Jane, Turkheimer, & Oltmanns, 2004). Across non-clinical sample significant mean difference were apparent

on paranoid, histrionic, avoidant, dependent, and cluster C PDs where females scored higher. Considering the dynamics of Pakistani society, it is important to understand the traits like submissiveness and fearfulness are considered to be typical and acceptable for women. This might be one reason for higher mean score of females in Pakistani non-clinical sample. Finding regarding high mean for females on paranoid PD is unique and needs further exploration. One interesting reason behind it could be the criteria that is used for assessment of paranoid PDs. Concepts like magic, others (specifically in laws) conspiring against women, thinking that relatives are envious are typical in Asian societies. So carefully planned culturally driven assessment needs to be taken into account to understand this high prevalence of paranoid traits among women in community sample.

Mean differences were studied across age for both clinical ($N = 408$) and non-clinical sample ($N = 487$). Findings for clinical sample across ASR syndrome scale indicated that non-significant differences were apparent on all broad band scales across age. Whereas across narrow band scales significant mean differences were apparent on rule breaking and intrusive problems where young adults scored higher as compared to late adults. Across ABCL broad band syndrome scale of externalizing behavioral problem young adults scored higher in comparison to individuals in middle and late adulthood. Across narrow band scales of ABCL, young adults scored higher on aggressive, rule breaking and intrusive behavioral problems. Non-significant differences were apparent across all other narrow band scales for clinical sample. These findings are in line with existing body of literature. Impulsivity and risk taking are considered to be core elements of young adulthood (Krueger & South, 2009). Both these elements tend to predict high externalizing behavior among young adults. Moreover, longitudinal researches aiming to understand the developmental trajectories of externalizing behavioral problems confirm that they tend to increase with age and are at the peak in young adolescents and later follow a steady decrease (Magai, Malik, & Koot, 2018).

For non-clinical sample significant mean differences were apparent across broad band scale of internalizing, externalizing and total problem behavior with all being more prevalent in early adulthood. Across narrow band scales as well similar differences were apparent for anxious depressed, withdrawn, attention problem, aggressive behavior and rule breaking behavior. Across ABCL across broad band scale significant difference was

apparent across externalizing behavioral problem being more prevalent in early adulthood. Similar differences were apparent across narrow bands scales of aggressive and rule breaking behaviors with both being prevalent in early adulthood. In contrast intrusive behavioral problems were more apparent late adulthood.

These differences apparent across age can be best explained keeping in view the stressors and challenges faced by individuals with in early adulthood (that comprises of age bracket between 18 to 35 years). All major transitions like expectation to be independent, academic milestones, pressure to find a job, and support family (mostly extended in case of Pakistani society) are usually at the peak. Moreover, experience of dealing with these changes in also not there. In all these conditions are likely to make an individual more prone to develop problem behaviors. This finding with non-clinical / community sample has critical importance as it is providing information that much efforts regarding preventive and intervention strategies need to be centered for early adults so that they can find avenues for better mental health as a major percentage of Pakistani population is with in this age group. Though with caution, but it can be assumed that most of them experience similar situation and this puts them at a risk of developing problem behaviors.

For PD across age only significant difference was apparent across anti-social and narcissistic PD at individual PD level and cluster B (at cluster level) for clinical sample where young adults scored higher as compared to late adults that can again be accounted to element of impulsivity and need for recognition present during early adulthood. For non-clinical sample significant mean differences were apparent across schizoid, schizotypal, anti-social, borderline, histrionic, narcissistic, avoidant and dependent PDs with all being more prevalent in early adulthood. All other differences were non-significant. Though PDs involve behaviors that tend to show a consistent pattern across age (that was also apparent from the findings related to prevalence, where non-significant differences were apparent), but when it comes of magnitude of the problem in terms of mean difference it is apparent that some PDs (as mentioned earlier) in terms of mean comparison show higher scores in early adulthood. It can also be because of the fact that problems in the domain of adaptive functioning are highest during the phase of early adulthood as major milestones are supposed to be covered which might lead to worsening of PDs during this phase of life

especially in the cases where no treatment being sought for management of these PDs (Skodol, 2011; Tyrer et al., 1997).

Mean differences were also computed across education level (Hypothesis 15 & 16). With few exceptions it can be concluded that for all disorder illiterate group or individuals with lesser education (primary and matric) scored higher as compared to those having education (intermediate, graduation or masters and above education level) for both samples. This trend was similar for both problem behaviors (assessed via ASR and ABCL) and ADP-IV. Presence of disorder causes impairment in multiple areas one of which is academic as well. Studies aimed at investigating the role of socio-demographic variable indicate that low levels of education among individuals with mental illness can be explained by two key reasons. The underlying pathology makes adjustment in academic settings difficult as a consequence of mental illness individuals are unable to adjust with in academic setting which ultimately lead to quitting education. Another reason involves interaction with other socio demographic variables like low socio-economic class, paired with harsh environment which leads to difficult and adjustment. All these conditions serve as a breeding ground for development of various forms of psychopathology (Vigl et al., 2011).

Mean differences across adaptive functioning

Mean differences were also computed across adaptive functioning for age and gender. Though sample size was unequal on each sub-domain of adaptive functioning, but it was apparent that in clinical sample males scored higher on the subscale of relationship with friends in comparison to females. Similarly, females scored higher in comparison to males on the domain of family functioning. This can be attributed to indigenous culture and dynamics of Pakistani society where males tend to seek more support form sources outside home for instance friends and females tend to seek more help for family (as limited avenues are available outside).

In case of non-clinical sample, males scored higher on the domain of relationship with friends which is inline with previous finding. Similarly, males also scored higher on the domain of job which can again be attributed to fact that males are allowed to socialize more with collages at work place in comparison to females in Pakistani society. Striking

results were apparent for relationship with spouse where males scored higher in comparison to females that needs to be probed further. One probable reason for this again can be culture, where females tend to continue the relationship despite of facing difficulties in relationship as society over time has given the responsibility of marriage sustainability to women. So, despite of facing difficulties in a relationship they tend to continue the relationship. But this interpretation needs further consideration as the effect size was small (even the sample of married individuals was less in the present study for non-clinical sample; which is one the limitations of present research). Non-significant differences were apparent across age on domain of adaptive functioning for both clinical and non-clinical samples.

Mean differences across past suicide attempts

Further mean differences were computed across all study variables on the past suicide attempts. This was carried out for both samples as considerable number of individuals in both sample (clinical $n = 159$ & non clinical $n = 52$) reported that they have committed suicide. Findings indicated that individuals with a history of suicide attempts (in both clinical and non-clinical sample) scored higher on all problem behaviors (both narrow and broad band problems) and PDs as well. Presence of psychopathology is a risk factor for suicide. Moreover, when problem behaviors are complicated further by either increased co-morbidity or by presence of PDs the risk of attempting suicide also increases (Coid et al., 2006; Hayward & Moran, 2007; Tyrer, 2018). These findings further sheds light on the fact that it is important to assess risk of suicide take into account this critical feature associated with both problem behaviors and psychopathology. Moreover, future researchers can assess the role of individual problem behaviors and PDs in prediction of suicide. At the level of community as apparent from findings with non-clinical sample efforts need to be centered for designing and implementation of preventive strategies so that foundations for more healthy communities can be established.

To conclude, results across demographic variables yielded information that can be understood keeping the view the cultural norms and values of Pakistani society. A trend of conforming to the traditional gender roles was apparent in most of the cases across both samples. So, the notion that culture plays a crucial role in manifestation of psychopathology

was again supported by the findings of the present study. It was more apparent from the fact that for disorders across which differences were non-significant in terms of prevalence, differences were evident when compared for mean differences conforming the fact that cultural norms are deep rooted and internalized and have the power to shape manifestation of problem behaviors in terms of magnitude and intensity (despite of common unifying universal structure of psychopathologies).

Theoretical Contributions and Practical Implications

The researchers and clinicians are of the opinion that personality plays a crucial role in onset and maintenance of psychological problems. Over the past decade, researchers have been keen in developing the understanding of mechanisms by which personality turns into set of maladaptive traits referred as personality pathology. But how this pathology further creates “vulnerability” or “diathesis” for other mental health problems still needs to be understood. This led us to the first research question that aimed at exploring the predictive role of personality pathology in onset of problem behavior that were assessed via ASEBA among adults.

With reference to Pakistan, it is imperative to understand that both personality disorders and the systems of empirically driven taxonomies for adults are relatively new as both have undergone major revisions during the past few years globally. For instance, personality disorder was being assessed on categorical model not taking into account the functional impairment caused by the presence of symptoms and the new revision incorporates both symptoms and functional impairment. This newer system is taking into account both trait and distress and formulates an algorithm based on this information. With an increased emphasis on assessing personality and problem behavior dimensionally, the traditional system of categorical analysis is receiving much criticism for ignoring problematic behaviors that lies below the arbitrary threshold. However, emerging etiological models (Widiger, 2011) propose that this should be assessed on a continuum like personality traits. Despite of the critique, their extensive use in clinical setups highlights the gap between researchers and mental health practitioners in Pakistan. Moreover, the way personality disorders are being conceptualized theoretically and implemented in mental health set ups (in Pakistan) leads to under recording of PDs as they

are considered to be set of traits that cannot be altered for adults (personal observation of the researcher during data collection in Pakistan). Considering the above-mentioned facts, it can be assumed that PDs are often not assessed and catered properly in designing treatment and intervention programs which leads to minimal adherence to treatment and poor treatment outcomes. The present research, with reference to this concern, provides an assessment that involves testing the empirically driven dimensional models for both personality and problem behavior for Pakistani sample. This theoretical contribution is pertinent to the Pakistani culture and adults, as the indigenous construct validation of ADP IV and ASEBA would be the first step of moving towards emerging dimensional based system from the prevalent categorical system.

Keeping in mind the mental health system of Pakistan and before assessing the relationship between personality pathology and other mental health problems it was essential to understand the current procedures that are being employed for psychological assessment. As established in Chapter 1, mental health system of Pakistan is already overburdened, and standardized procedures are often not followed for assessment and intervention in clinical settings. Besides, it's also evident that clinicians lack knowledge regarding international criteria for accurate diagnosis (Begum et al., 2019). These circumstances lead to incorrect diagnosis which further hinders getting the correct treatment. Hence, it is important to educate clinicians about tools/instruments based upon standard criteria that are widely used for assessment globally. Therefore, the prime practical contribution of present research is translation, adaptation, and construct validation of ASEBA across both clinical and non-clinical samples for Pakistan. As availability of standardized tools in a Pakistani culture would educate and sensitize clinicians to use ASEBA for clinical assessment. This sensitization would be helpful in moving away from much criticized traditional categorical system of psychological diagnosis, widely used in Pakistan. This research would further provide evidence to address comorbidity between mental health problems. As at present, most of the time clinical diagnosis is based upon unstructured interviews, likely to be subjective. It can be assumed that the indigenously validated ASEBA (ASR and ABCL) would promote and highlight the significance of following standardized procedures involving administration of tools / instruments that have been culturally validated. It can be further inferred that the findings of indigenous

translations of ASR and ABCL would provide comprehensive information; communicated easily with the help of plotters to both patient and their informants. It can be assumed that this communication could educate them about their problems and would enhance their active participation (with their clinician) in the designing of treatment plan and its adherence.

In terms of mental health system in Pakistan and theoretical contributions, the present research explored the factors leading to psychopathology that involves important precursors such as personality pathology (based on etiological model as mentioned in Chapter 1). In the clinical practice of Pakistan, treatment is devised for the pressing problems with which the patient comes in which often impacts the detection of PDs as they are overshadowed by other mental health problems leading to diagnostic neglect of personality pathology. With poor outcomes (poor adherence to treatment and minimal improvement), this practice continues leading to poor health, increased risk for suicide, and serious problems in interpersonal relationships. One of the prime reasons for not assessing PDs is lack of realization at the level of clinicians regarding how PDs shape up other psychopathologies and higher prevalence rates of PDs especially in clinical setups. Another reason revolves around lack of indigenously validated standardized and comprehensive assessment tools for PDs (along with problematic behaviors). Hence, present research also contributed in testing the factor structure of ADP IV based upon DSM IV TR criteria of assessment. As researchers are of the opinion that for enhancing understanding of PDs it is important to test psychometrically sound and resource friendly instruments (Volkert, Gablonski, & Rabung, 2018). The present study adds to the existing literature as ADP IV is a comprehensive instrument that assess both categorically and dimensionally. Even for the sake for categorical assessment it takes into account the element of functional impairment caused by presence of each symptom which is often lacking in many other tools that are employed to assess personality disorders. Therefore, it can be claimed that the present research provides an effective contribution to the existing body of research on personality pathology by taking into account the dimensional factor structure in Urdu language. This would impact the practical implication of incorporating personality pathology via ADP IV in the mental health systems of Pakistan.

Furthermore, availability of standardized tools and educating clinicians about tools for accurate assessment of PDs can be useful from public health perspective as well. This will facilitate initial screening and foster the efforts for designing effective intervention plans for better management of problem behaviors and PDs especially in clinical population thereby reducing the individual and societal burden imposed due to both issues. As both of them are linked to the significant functional impairment involving relationships, education, and occupational impairments. This piece of research further navigates the research from designing to implementations as researchers (Coid, 2003) poised designing, implementation, evaluation, and evidence-based intervention plans incorporating personality pathology as an important domain of future research.

It has been established in the earlier paragraphs that the present research contributes, both theoretically and practically, in providing indigenous standardized tools for initial assessment of PDs and problematic behavior. It further contributes in determining prevalence of median number of symptoms of PDs present in both narrow and broad band scales of ASR for both clinical and non-clinical samples. As established earlier, there exists a paucity of literature regarding prevalence of PDs in Pakistan, the present research not only establishes prevalence but also addresses the emerging international criticism of mere reliance on PDs as categorical system cannot add much value to the understanding of PDs. Rather developing an understanding of number of symptoms of PDs present, can add much valuable information regarding which symptoms of PDs in particular and which symptoms at clusters level in general are most prevalent. Findings of the present research indicated that symptoms of BPD were most prevalent for both samples (clinical and non-clinical). For instance, at cluster level, Cluster B symptoms were most prevalent for both samples. These findings can help clinicians in Pakistan to be more careful at the time of assessment and assist them in understanding to move away from the traditional categorical approaches and adopting a dimensional approach to assess them more comprehensively.

Prevalence of the data across gender for ASR further adds to the existing literature (rather contradicts), when assessed categorically across gender non-significant differences were apparent across both sample for internalizing behavioral problems. In contrast, as expected, externalizing behavioral problems were more prevalent among males in

comparison to females in both samples. These findings cannot be interpreted independently as the mean differences across gender depicts an altogether different scenario. Where for clinical sample female scored higher on internalizing behavioral problems as compared to males. Hence, these findings need to be interpreted in cultural context of Pakistan where males are more reluctant to share and express their emotions of sadness and grief as it is perceived as a sign of weakness. Though these findings need to be interpreted carefully with caution as the sample was drawn on the basis of purposive convenience sampling but irrespective of that these can be useful for the intervention plans. As in-practice clinician's often link problems of depression and anxiety with females based upon the prevalent trends. However, sharing these statistics with clinicians would aid them in adopting an unbiased and neutral approach to psychopathology with respect to gender. These findings could be very valuable for enhancing diagnostic efficacy in Pakistan. Hence, the findings foster the intervention plans thoroughly across gender as well.

The present research not only enhance the existing assessment, design, and intervention plan for PDs and problematic behavior but highlights that cultural upbringing and gender norms have a crucial role in determining the manifestation of symptoms. This was apparent from the mean differences across these problems, confirming the previous literature. Therefore, it can be suggested that interventions should be culturally tailored especially for problematic behaviors of adults in Pakistan. These findings foster the rationale of indigenous research on PDs and problematic behaviors instead of relying on the western researches and interventions.

Similarly, findings regarding prevalence of PDs, problem behaviors, and suicide attempts ($N = 52$) among non-clinical sample highlights the need to design preventive strategies to improve mental health of community samples (as non-clinical sample was not seeking any treatment). It also sheds light on the fact that mental health problems are still not understood in our society and yet remain a tabooed issue.

This research further contributes in the statistics of existing indigenous literature in terms of presence of high broad band scale of externalizing behavioral problems among late adulthood than young adulthood. Previous literature has been mostly consistent in reporting this problem to be more apparent in early adulthood and often attributed it to the

element of impulsivity and poor decision making. Though, it needs to be interpreted with caution, it highlights cultural factor. Increase in age is often paired with more liberty and independence among males in Pakistani society. This might be one probable reason for increased rule breaking, aggressive, and externalizing behavioral problems among males in late adulthood. Keeping in view these findings, it is important to understand reasons behind the high prevalence of externalizing behavioral problems among late adulthood and design interventions accordingly.

Predictive role of PDs in broad band scales of internalizing and externalizing behavioral problems is also crucial in enhancing the understanding of these broader set of problems. Hence, the current findings provide an insight for tackling this issue in the cultural context of Pakistan. As unique predictors emerged for both samples (clinical and non-clinical) affirming that predictors are highly dependent on characteristics of the sample being studied. For instance, for both samples, from cluster A only paranoid and schizoid predicted internalizing behavioral problem but from Cluster B, in case of clinical sample both bipolar and narcissism PD predicted internalizing behavioral problems whereas for non-clinical sample only bipolar PD predicted it. To summarize, personality plays a crucial role to determine problematic behaviors of specific population and it should be considered during initial assessment and treatment plans. Detection ignorance of PDs at the time of initial assessment and intake of patient leads to missing out important pre-cursors that play a significant role in onset and maintenance of other psychopathologies. This calls for stringent policies regarding adopting standardized procedures for accurate psychological assessment. Moreover, personality assessment could be made a mandatory part of clinical assessment as it plays a crucial role in determining the trajectory of other mental health problems.

Lastly, the present research confirms the moderating role of adaptive functioning in relationship between PDs and problem behaviors. Adaptive functioning as assessed in present research involves functioning in areas like relationship with friends, spouse, family, and coworkers. Findings indicate that this relationship can be buffered by adaptive functioning in all these areas indicating that a comprehensive treatment plan needs to incorporate friends, spouse, family, and co-workers. The common practice of merely treating the client/patient for the problem behavior is unlikely to yield fruitful outcome.

Considering the collective nature of Pakistani society, and prevalent beliefs about family relations even understanding symptoms of psychopathology and their manifestation can not be done without incorporating the role of family. Providing information to the significant others specifically the family members can be helpful as they might be able to extend their support which can further help patient to recover. This highlights the need to come up with more comprehensive treatment plans incorporating patient, family and significant others from the surroundings.

To summarize the above mentioned theoretical and practical contributions of the study, it has been highlighted by the findings that the present research could aid the clinicians and practitioners in accurate assessment, diagnosis, and designing intervention plans through indigenously standardized tools for PDs and behavioral problems. The present research further illustrates the need for adopting the culturally rooted treatment plans for both clinical and non-clinical adults. Policies could be devised for practitioners and clinicians for using a standard tool for initial assessment at all hospitals. These results could be communicated with the general public as well with reference to the moderating role of adaptive functioning for family support. It can be assumed that this research fills the literature gap not only in terms of testing a system based on empirical based taxonomy but also provided a guideline for future researchers regarding the relationship between personality and problem behavior as well as the prevalence of disorders.

Limitations and Suggestions

Despite of considerable theoretical and practical implications present research is also not free of its limitations. Following are the limitations and suggestions for future researchers.

First and foremost, limitation is cross sectional nature of the research. PDs and problem behaviors assessed through ASEBA have been studied cross-sectionally. In addition to this data was collected from the out patient units, so all questionnaires were administered in a single setting. Future research can be designed longitudinally so that more conclusive evidences can be drawn regarding nature of both PDs and problem behaviors across age for same individuals. Moreover, follow up set systems could be designed so that patients specifically can be accessed afterwards as well.

Secondly, present research used purposive convenience sampling and the sample was restricted to three cities of Pakistan (Islamabad, Rawalpindi, and Lahore) only. Though all three cities are urban and significant number of individuals from rural background approach city's hospital for treatment, yet representative sample cannot be drawn. As a consequence, comparison could not be done along this dimension. This could lead to issues in generalizability of findings and the future researchers could get a more representative sample by considering the urban and rural population (for instance, as mental hospital is only limited to cities, patients can be asked about their locale in the demographic sheet and a representation sample could be drawn)

Third, PDs were assessed only through self-report measures and practically, it was challenging to use other methods with clinical sample despite of literature suggestions to incorporate other approaches like semi-structured interviews. Future researches could include interview protocols for assessment of PDs as well along with self-report measure.

Fourth, although an effort was made to collect demographically similar data to make valid comparisons, but it was beyond the scope of the study to execute the analysis. Additionally, there were few differences on some demographic variables like age. Future researches could take into account this fact and draw a sample that is demographically similar and examine the differences across sample and demographics.

Although one of the potential strengths of present research is testing the factor structure separately across both samples (clinical and non-clinical) however, it would be interesting to examine the factor structures across gender and age especially for PD as empirical findings suggests that DSM criteria for PD may not be equally applicable across age. Hence, further studies could take into account this perspective as well. Lastly, element of social desirability needs to be taken into account for future studies.

Conclusion

The present research examined the role of personality pathology in the prediction of problem behaviors. The results of the study although were in line with the previous literature, however, few relationships could be best explained by the cultural and sociopolitical situation of Pakistan. In addition to examining the relationship, present research also furnished evidence for construct validation of ASR, ABCL, and ADP IV

across Pakistani society. This confirmation of factor structures across both clinical and non-clinical samples provides support for emerging notion of pathology factor, “p factor”, affirming a unifying structure underlying psychopathology. It can be thus inferred that set of genetic factors overlapping with environmental factors converge across societies resulting in similar manifestation of psychopathology. To conclude, all the above-mentioned factors lead to convergence of both eight-syndrome model (with respect to self and informant related measures of psychopathology) and ADP IV in Pakistani society as well.

Higher prevalence of PDs among clinical sample indicates that they are not being addressed and catered properly in diagnosis and treatment plans. In addition to this, non-significant differences for internalizing behavioral problems across gender in case of both samples and higher prevalence of externalizing among late adulthood in clinical sample, further illustrates the need to incorporate cultural perspective in understanding the nature of these psychopathologies along with devising the treatment and intervention plans. Moreover, the results of present study highlight that predictive role of paranoid, borderline, and avoidant PDs, thus providing an evidence for PDs as an important predictor of other psychopathologies among both samples.

This body of research further implied the importance of incorporating adaptive functioning to cater PDs and psychopathologies in specific sample in Pakistani context which is collective in nature and family is considered a prime institute for transmission of norms and values. Further sensitizing family about problems could add on to the familial support. This highlights that adaptive functioning specifically family functioning buffers the aversive impact of PDs on psychopathology which further strengthen that in collectivistic cultures familial, spousal, and peers support holds a significant value. Therefore, sensitizing this particular circle about the patient’s condition would significantly enhance the treatment outcomes.

Lastly, the present research could be concluded on the notion that it is high time to communicate the findings of basic researchers with the mental health practitioners and policy makers so that preventive strategies could be designed to deal effectively with the

challenges imposed by the personality disorders on individual in specific and on communities in general.

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APPENDICES

Appendix A

Agreement Achenbach System of Empirically Based Assessment for Adults

The University of Vermont



ASEBA

Research Center for Children, Youth & Families, Inc.

A Non-Profit Corporation

1 South Prospect Street, St Joseph's Wing (Room #3207), Burlington, VT 05401

Telephone: (802)656-5130 / Fax: (802)656-5131

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- (b) Dates or times by which Licensor is required to make performance under this Agreement shall be postponed automatically to the extent that Licensor is prevented from meeting by causes beyond its reasonable control.
- (c) This Agreement and performance hereunder shall be governed by the laws of the State of Vermont.
- (d) No action, regardless of form, arising out of this Agreement may be brought by Licensee more than two years after the cause of action has arisen.
- (e) If any provision of this Agreement is invalid under any applicable statute or rule of law, it is to the extent to be deemed omitted.
- (f) The Licensee may not assign or sub-license, without the prior written consent of Licensor, its rights, duties or obligations under this Agreement to any person or entity, in whole or in part.
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Accepted and Agreed to:

LICENSOR:

Thomas M. Achenbach, Ph.D.

Signature: 

Title: President, Research Center for

Children, Youth & Families, Inc.

Date: 13 April 2017

For License #1089-11-10-14 Amended 11-01-16

Accepted and Agreed to:

LICENSEE:

Dr. Anila Kamal

Signature: 

Print name: Prof. Dr. Anila Kamal

Title: Tenured Professor and Director

Address: National Institute of Psychology, Quaid-i-

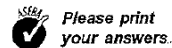
Azam University Islamabad

Date: 10-4-2017

Appendix B1

Adult Self Report for Adults: English Version

EVAL 1A=01



ADULT SELF-REPORT FOR AGES 18-59

For office use only

ID# *ASREXTSCR*

YOUR FULL NAME: First _____ Middle _____ Last _____			YOUR USUAL TYPE OF WORK, even if not working now. Please be specific—for example, auto mechanic; high school teacher; homemaker; laborer; lathe operator; shoe salesman; army sergeant; student (indicate what you are studying & what degree you expect) Your work _____ Spouse or partner's work _____
YOUR GENDER <input type="checkbox"/> Male <input type="checkbox"/> Female	YOUR AGE _____	ETHNIC GROUP OR RACE _____	
TODAY'S DATE: Mo _____ Date _____ Yr _____		YOUR BIRTHDATE: Mo _____ Date _____ Yr _____	
Please fill out this form to reflect your views, even if other people might not agree. You need not spend a lot of time on any item. Feel free to print additional comments. Be sure to answer all items.			
PLEASE CHECK YOUR HIGHEST EDUCATION <input type="checkbox"/> 1. No high school diploma and no GED <input type="checkbox"/> 7. Some graduate school but no graduate degree <input type="checkbox"/> 2. General Equivalency Diploma (GED) <input type="checkbox"/> 8. Master's Degree <input type="checkbox"/> 3. High school graduate <input type="checkbox"/> 9. Doctoral or Law Degree <input type="checkbox"/> 4. Some college but no college degree <input type="checkbox"/> Other education (specify): _____ <input type="checkbox"/> 5. Associate's Degree <input type="checkbox"/> 6. Bachelor's or RN Degree			

I. FRIENDS:

- A. About how many close friends do you have? (Do not include family members.)
 None 1 2 or 3 4 or more
- B. About how many times a month do you have contact with any of your close friends? (Include in-person contacts, phone, letters, e-mail)
 Less than 1 1 or 2 3 or 4 5 or more
- C. How well do you get along with your close friends?
 Not as well as I'd like Average Above average Far above average
- D. About how many times a month do any friends or family visit you?
 Less than 1 1 or 2 3 or 4 5 or more

II. SPOUSE OR PARTNER:

- What is your marital status? Never been married Married but separated from spouse
 Married, living with spouse Divorced
 Widowed Other—please describe: _____

At any time in the past 6 months, did you live with your spouse or with a partner?

- No—please skip to page 2.
 Yes—Circle 0, 1, or 2 beside items A-H to describe your relationship **during the past 6 months:**

0 = Not True 1 = Somewhat or Sometimes True 2 = Very True or Often True

0 1 2 A I get along well with my spouse or partner	0 1 2 E My spouse or partner and I disagree about living arrangements, such as where we live
0 1 2 B My spouse or partner and I have trouble sharing responsibilities	0 1 2 F I have trouble with my spouse or partner's family
0 1 2 C I feel satisfied with my spouse or partner	0 1 2 G I like my spouse or partner's friends
0 1 2 D My spouse or partner and I enjoy similar activities	0 1 2 H My spouse or partner's behavior annoys me

Please print. Be sure to answer all items.

III. FAMILY:

Compared with others, how well do you:

		Worse than Average	Variable or Average	Better than Average	No Contact
A. Get along with your brothers?	<input type="checkbox"/> I have no brothers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Get along with your sisters?	<input type="checkbox"/> I have no sisters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Get along with your mother?	<input type="checkbox"/> Mother is deceased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Get along with your father?	<input type="checkbox"/> Father is deceased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Get along with your biological or adopted children?	<input type="checkbox"/> I have no children				
1. Oldest child	<input type="checkbox"/> Not applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. 2nd oldest child	<input type="checkbox"/> Not applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. 3rd oldest child	<input type="checkbox"/> Not applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Other children	<input type="checkbox"/> Not applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Get along with your stepchildren?	<input type="checkbox"/> I have no stepchildren	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IV. JOB: At any time in the past 6 months, did you have any paid jobs (including self-employment and military service)?

No—please skip to Section V.

Yes—please describe your job(s): _____

Circle 0, 1, or 2 beside items A-I to describe your work experience *during the past 6 months*:

0 = Not True

1 = Somewhat or Sometimes True

2 = Very True or Often True

0 1 2	A. I work well with others	0 1 2	F. I do things that may cause me to lose my job
0 1 2	B. I have trouble getting along with bosses	0 1 2	G. I stay away from my job even when I'm not sick or not on vacation
0 1 2	C. I do my work well	0 1 2	H. My job is too stressful for me
0 1 2	D. I have trouble finishing my work	0 1 2	I. I worry too much about work
0 1 2	E. I am satisfied with my work situation		

V. EDUCATION: At any time in the past 6 months, did you attend school, college, or any other educational or training program?

No—please skip to Section VI.

Yes—what kind of school or program? _____

What degree or diploma are you seeking? _____ Major? _____

When do you expect to receive your degree or diploma? _____

Circle 0, 1, or 2 beside items A-E to describe your educational experience *during the past 6 months*:

0 = Not True

1 = Somewhat or Sometimes True

2 = Very True or Often True

0 1 2	A. I get along well with other students	0 1 2	D. I am satisfied with my educational situation
0 1 2	B. I achieve what I am capable of	0 1 2	E. I do things that may cause me to fail
0 1 2	C. I have trouble finishing assignments		

VI. Do you have any illness, disability, or handicap? No Yes—please describe: _____

VII. Please describe your concerns or worries about family, work, education, or other things: No concerns

VIII. Please describe the best things about yourself: _____

Please print. Be sure to answer all items.

IX. Below is a list of items that describe people. For each item, please circle 0, 1, or 2 to describe yourself over the past 6 months. Please answer all items as well as you can, even if some do not seem to apply to you.

0 = Not True	1 = Somewhat or Sometimes True	2 = Very True or Often True
0 1 2	1	I am too forgetful
0 1 2	2	I make good use of my opportunities
0 1 2	3	I argue a lot
0 1 2	4	I work up to my ability
0 1 2	5	I blame others for my problems
0 1 2	6	I use drugs (other than alcohol and nicotine) for nonmedical purposes (describe): _____
0 1 2	7	I brag
0 1 2	8	I have trouble concentrating or paying attention for long
0 1 2	9	I can't get my mind off certain thoughts (describe): _____
0 1 2	10	I have trouble sitting still
0 1 2	11	I am too dependent on others
0 1 2	12	I feel lonely
0 1 2	13	I feel confused or in a fog
0 1 2	14	I cry a lot
0 1 2	15	I am pretty honest
0 1 2	16	I am mean to others
0 1 2	17	I daydream a lot
0 1 2	18	I deliberately try to hurt or kill myself
0 1 2	19	I try to get a lot of attention
0 1 2	20	I damage or destroy my things
0 1 2	21	I damage or destroy things belonging to others
0 1 2	22	I worry about my future
0 1 2	23	I break rules at work or elsewhere
0 1 2	24	I don't eat as well as I should
0 1 2	25	I don't get along with other people
0 1 2	26	I don't feel guilty after doing something I shouldn't
0 1 2	27	I am jealous of others
0 1 2	28	I get along badly with my family
0 1 2	29	I am afraid of certain animals, situations, or places (describe): _____
0 1 2	30	My relations with the opposite sex are poor
0 1 2	31	I am afraid I might think or do something bad
0 1 2	32	I feel that I have to be perfect
0 1 2	33	I feel that no one loves me
0 1 2	34	I feel that others are out to get me
0 1 2	35	I feel worthless or inferior
0 1 2	36	I accidentally get hurt a lot, accident-prone
0 1 2	37	I get in many fights
0 1 2	38	My relations with neighbors are poor
0 1 2	39	I hang around people who get in trouble
0 1 2	40	I hear sounds or voices that other people think aren't there (describe): _____
0 1 2	41	I am impulsive or act without thinking
0 1 2	42	I would rather be alone than with others
0 1 2	43	I lie or cheat
0 1 2	44	I feel overwhelmed by my responsibilities
0 1 2	45	I am nervous or tense
0 1 2	46	Parts of my body twitch or make nervous movements (describe): _____
0 1 2	47	I lack self-confidence
0 1 2	48	I am not liked by others
0 1 2	49	I can do certain things better than other people
0 1 2	50	I am too fearful or anxious
0 1 2	51	I feel dizzy or lightheaded
0 1 2	52	I feel too guilty
0 1 2	53	I have trouble planning for the future
0 1 2	54	I feel tired without good reason
0 1 2	55	My moods swing between elation and depression
	56	Physical problems <i>without known medical cause</i> :
0 1 2	a	Aches or pains (<i>not</i> stomach or headaches)
0 1 2	b	Headaches
0 1 2	c	Nausea, feel sick
0 1 2	d	Problems with eyes (<i>not</i> if corrected by glasses) (describe): _____
0 1 2	e	Rashes or other skin problems
0 1 2	f	Stomachaches
0 1 2	g	Vomiting, throwing up
0 1 2	h	Heart pounding or racing
0 1 2	i	Numbness or tingling in body parts
0 1 2	57	I physically attack people
0 1 2	58	I pick my skin or other parts of my body (describe): _____
0 1 2	59	I fail to finish things I should do
0 1 2	60	There is very little that I enjoy
0 1 2	61	My work performance is poor
0 1 2	62	I am poorly coordinated or clumsy

Please print. Be sure to answer all items.

0 = Not True	1 = Somewhat or Sometimes True	2 = Very True or Often True
0 1 (2)	63. I would rather be with older people than with people of my own age	(0) 1 2 93 I talk too much
0 1 2	64 I have trouble setting priorities	0 (1) 2 94 I tease others a lot
(0) 1 2	65 I refuse to talk	0 1 (2) 95 I have a hot temper
0 (1) 2	66 I repeat certain acts over and over (describe): _____	0 1 2 96 I think about sex too much
	_____	(0) 1 2 97 I threaten to hurt people
0 1 (2)	67 I have trouble making or keeping friends	0 (1) 2 98 I like to help others
0 1 2	68 I scream or yell a lot	0 1 (2) 99 I dislike staying in one place for very long
(0) 1 2	69 I am secretive or keep things to myself	0 1 2 100 I have trouble sleeping (describe): _____
0 (1) 2	70 I see things that other people think aren't there (describe): _____	
	_____	(0) 1 2 101 I stay away from my job even when I'm not sick or not on vacation
0 1 (2)	71 I am self-conscious or easily embarrassed	0 (1) 2 102 I don't have much energy
0 1 2	72 I worry about my family	0 1 (2) 103 I am unhappy, sad, or depressed
(0) 1 2	73 I meet my responsibilities to my family	0 1 2 104 I am louder than others
0 (1) 2	74 I show off or clown	(0) 1 2 105 People think I am disorganized
0 1 (2)	75 I am too shy or timid	0 (1) 2 106 I try to be fair to others
0 1 2	76 My behavior is irresponsible	0 1 (2) 107 I feel that I can't succeed
(0) 1 2	77 I sleep more than most other people during day and/or night (describe): _____	0 1 2 108 I tend to lose things
	_____	(0) 1 2 109 I like to try new things
0 (1) 2	78 I have trouble making decisions	0 (1) 2 110 I wish I were of the opposite sex
0 1 (2)	79 I have a speech problem (describe): _____	0 1 (2) 111 I keep from getting involved with others
	_____	0 1 2 112 I worry a lot
0 1 2	80 I stand up for my rights	(0) 1 2 113 I worry about my relations with the opposite sex
(0) 1 2	81 My behavior is very changeable	0 (1) 2 114 I fail to pay my debts or meet other financial responsibilities
0 (1) 2	82 I steal	0 1 (2) 115 I feel restless or fidgety
0 1 (2)	83 I am easily bored	0 1 2 116 I get upset too easily
0 1 2	84 I do things that other people think are strange (describe): _____	(0) 1 2 117 I have trouble managing money or credit cards
	_____	0 (1) 2 118 I am too impatient
(0) 1 2	85 I have thoughts that other people would think are strange (describe): _____	0 1 (2) 119 I am not good at details
	_____	0 1 2 120 I drive too fast
0 (1) 2	86 I am stubborn, sullen, or irritable	(0) 1 2 121 I tend to be late for appointments
0 1 (2)	87 My moods or feelings change suddenly	0 (1) 2 122 I have trouble keeping a job
0 1 2	88 I enjoy being with people	0 1 (2) 123 I am a happy person
(0) 1 2	89 I rush into things without considering the risks	
0 (1) 2	90 I drink too much alcohol or get drunk	124 <i>In the past 6 months</i> , about how many times per day did you use tobacco (including smokeless tobacco)? _____ times per day.
0 1 (2)	91 I think about killing myself	125 <i>In the past 6 months</i> , on how many days were you drunk? _____ days.
0 1 2	92 I do things that may cause me trouble with the law (describe): _____	126 <i>In the past 6 months</i> , on how many days did you use drugs for nonmedical purposes (including marijuana, cocaine, and other drugs, except alcohol and nicotine)? _____ days.

Scoring Detail of ASR

Narrow band scales

The details of eight narrow band scales is summarized below:

Anxious depressed: 12, 13, 14, 22, 31, 33, 34, 35, 45, 47, 50, 52, 71, 91, 103, 107, 112, 113

Withdrawn: 25, 30, 42, 48, 60, 65, 67, 69, 111

Somatic complaints: 51, 54, 56a, 56b, 56c, 56d, 56e, 56f, 56g, 56h, 56i, 100

Thought problems: 9, 18, 36, 40, 46, 63, 66, 70, 84, 85

Attention problems: 1, 8, 11, 17, 53, 59, 61, 64, 78, 101, 102, 105, 108, 119, 121

Aggressive behavior: 3, 5, 16, 28, 37, 55, 57, 68, 81, 86, 95, 97, 116, 118

Rule breaking: 6, 20, 23, 26, 39, 41, 43, 76, 82, 90, 92, 114, 117, 122

Intrusive: 7, 19, 74, 93, 94, 104

Other Problems: 10, 21, 24, 27, 29, 32, 38, 44, 58, 62, 72, 75, 77, 79, 83, 89, 96, 99, 110, 115, 120

Broad band scales

Internalizing: Anxious depressed + Withdarwn + Somatic complaints

Externalizing: Aggressive behavior + Rule breaking + Intrusive

Total Problem: Internalizing + Externalizing + Thought problems + Attention problems + Other Problems

Adaptive Functioning scales

Friends: A + B + C + D

Spouse: Positive items: (A + C + D + G) & Negative items (B + E + F+ H)

Family: (A + B + C + D + E_i + E_{ii} + E_{iii} + E_{iv} + F); Sum of all / Total number of items responded

Job: Positive items: (A + C + E) & Negative items (B + D + F + G + H + I)

Education: Positive items (A + B + D) & Negative items (C + E)

Mean adaptive functioning: Sum of all adaptive functioning subscales / total number of sub-scales applicable

Appendix B2

Adult Behavior Checklist for Adults: English Version

Please print your answers.

ADULT BEHAVIOR CHECKLIST FOR AGES 18-59

For office use only

ID# ABCEXTSCA

ADULT'S FULL NAME First Middle Last			ADULT'S USUAL TYPE OF WORK, even if not working now. Please be specific—for example, auto mechanic; high school teacher; homemaker; laborer; lathe operator; shoe salesman; army sergeant; student (indicate what he/she is studying & what degree is expected) Adult's _____ work Spouse or partner's _____ work
ADULT'S GENDER <input type="checkbox"/> Male <input type="checkbox"/> Female		ADULT'S AGE	
TODAY'S DATE Mo _____ Date _____ Yr _____		ETHNIC GROUP OR RACE	THIS FORM FILLED OUT BY (print your full name): _____ Your relationship to adult: <input type="checkbox"/> Spouse <input type="checkbox"/> Partner <input type="checkbox"/> Other (specify): _____
PLEASE CHECK ADULT'S HIGHEST EDUCATION <input type="checkbox"/> 1 No high school diploma and no GED <input type="checkbox"/> 7 Some graduate school but no graduate degree <input type="checkbox"/> 2 General Equivalency Diploma (GED) <input type="checkbox"/> 8 Master's Degree <input type="checkbox"/> 3 High school graduate <input type="checkbox"/> 9 Doctoral or Law Degree <input type="checkbox"/> 4 Some college but no college degree <input type="checkbox"/> Other education (specify): _____ <input type="checkbox"/> 5 Associate's Degree <input type="checkbox"/> 6 Bachelor's or RN Degree			

Please fill out this form to reflect **your** views, even if other people might not agree. You need not spend a lot of time on any item. Feel free to print additional comments. **Be sure to answer all items.**

I. FRIENDS:

- A About how many close friends does he/she have? (Do not include family members.)
 None 1 2 or 3 4 or more
- B About how many times a month does he/she have contact with any close friends? (Include in-person contacts, phone, letters, e-mail)
 Less than 1 1 or 2 3 or 4 5 or more
- C How well does he/she get along with close friends?
 Not well Average Above average Far above average
- D About how many times a month do any friends or family visit him/her?
 Less than 1 1 or 2 3 or 4 5 or more

II. SPOUSE OR PARTNER:

- What is his/her marital status? Never been married Married but separated from spouse
 Married, living with spouse Divorced
 Widowed Other—please describe: _____

At any time in the past 6 months, did he/she live with a spouse or partner?

- No—please skip to page 2.
 Yes—Circle 0, 1, or 2 beside items A-H to describe his/her relationship **during the past 6 months:**

0 = Not True (as far as you know) 1 = Somewhat or Sometimes True 2 = Very True or Often True

0 1 2 A Gets along well with spouse or partner	0 1 2 E Disagrees with spouse or partner about living arrangements, such as where to live
0 1 2 B Has trouble sharing responsibilities with spouse or partner	0 1 2 F Has trouble with spouse or partner's family
0 1 2 C Seems satisfied with spouse or partner	0 1 2 G Likes spouse or partner's friends
0 1 2 D Enjoys similar activities as spouse or partner	0 1 2 H Is annoyed by spouse or partner's behavior

Please print. Be sure to answer all items.

VI. Below is a list of items that describe people. As you read each item, please decide whether it has been true of the adult over the past 6 months. Then circle 0, 1, or 2 to describe the adult. Please answer all items as well as you can, even if some do not seem to apply to the adult.

0 = Not True (as far as you know) 1 = Somewhat or Sometimes True 2 = Very True or Often True

- | | | | |
|-------|--|-------|---|
| 0 1 2 | 1. Is too forgetful | 0 1 2 | 37. Gets in many fights |
| 0 1 2 | 2. Makes good use of his/her opportunities | 0 1 2 | 38. His/her relations with neighbors are poor |
| 0 1 2 | 3. Argues a lot | 0 1 2 | 39. Hangs around people who get in trouble |
| 0 1 2 | 4. Works up to ability | 0 1 2 | 40. Hears sounds or voices that aren't there (describe): _____ |
| 0 1 2 | 5. Blames others for own problems | | |
| 0 1 2 | 6. Uses drugs (other than alcohol or nicotine) for nonmedical purposes (describe): _____ | 0 1 2 | 41. Impulsive or acts without thinking |
| | | 0 1 2 | 42. Would rather be alone than with others |
| 0 1 2 | 7. Bragging, boasting | 0 1 2 | 43. Lying or cheating |
| 0 1 2 | 8. Can't concentrate, can't pay attention for long | 0 1 2 | 44. Feels overwhelmed by responsibilities |
| 0 1 2 | 9. Can't get mind off certain thoughts; obsessions (describe): _____ | 0 1 2 | 45. Nervous, highstrung, or tense |
| | | 0 1 2 | 46. Nervous movements or twitching (describe): _____ |
| 0 1 2 | 10. Can't sit still, restless, or hyperactive | 0 1 2 | 47. Lacks self-confidence |
| 0 1 2 | 11. Too dependent on others | 0 1 2 | 48. Not liked by others |
| 0 1 2 | 12. Complains of loneliness | 0 1 2 | 49. Can do certain things better than other people |
| 0 1 2 | 13. Confused or seems to be in a fog | 0 1 2 | 50. Too fearful or anxious |
| 0 1 2 | 14. Cries a lot | 0 1 2 | 51. Feels dizzy or lightheaded |
| 0 1 2 | 15. Is pretty honest | 0 1 2 | 52. Feels too guilty |
| 0 1 2 | 16. Cruelty, bullying, or meanness to others | 0 1 2 | 53. Has trouble planning for the future |
| 0 1 2 | 17. Daydreams or gets lost in his/her thoughts | 0 1 2 | 54. Feels tired without good reason |
| 0 1 2 | 18. Deliberately harms self or attempts suicide | 0 1 2 | 55. Moods swing between elation and depression |
| 0 1 2 | 19. Demands a lot of attention | | 56. Physical problems <i>without known medical cause</i> : |
| 0 1 2 | 20. Damages or destroys his/her own things | 0 1 2 | a. Aches or pains (<i>not</i> stomach or headaches) |
| 0 1 2 | 21. Damages or destroys things belonging to others | 0 1 2 | b. Headaches |
| 0 1 2 | 22. Worries about his/her future | 0 1 2 | c. Nausea, feels sick |
| 0 1 2 | 23. Breaks rules at work or elsewhere | 0 1 2 | d. Problems with eyes (<i>not</i> if corrected by glasses) (describe): _____ |
| 0 1 2 | 24. Doesn't eat well | | |
| 0 1 2 | 25. Doesn't get along with other people | 0 1 2 | e. Rashes or other skin problems |
| 0 1 2 | 26. Doesn't seem to feel guilty after misbehaving | 0 1 2 | f. Stomachaches |
| 0 1 2 | 27. Easily jealous | 0 1 2 | g. Vomiting, throwing up |
| 0 1 2 | 28. Gets along badly with family | 0 1 2 | 57. Physically attacks people |
| 0 1 2 | 29. Fears certain animals, situations, or places (describe): _____ | 0 1 2 | 58. Picks skin or other parts of his/her body (describe): _____ |
| | | | |
| 0 1 2 | 30. Poor relations with opposite sex | 0 1 2 | 59. Fails to finish things he/she should do |
| 0 1 2 | 31. Fears he/she might think or do something bad | 0 1 2 | 60. There is very little that he/she enjoys |
| 0 1 2 | 32. Feels he/she has to be perfect | 0 1 2 | 61. Poor work performance |
| 0 1 2 | 33. Feels or complains that no one loves him/her | 0 1 2 | 62. Poorly coordinated or clumsy |
| 0 1 2 | 34. Feels others are out to get him/her | | |
| 0 1 2 | 35. Feels worthless or inferior | | |
| 0 1 2 | 36. Gets hurt a lot, accident-prone | | |

Please print. Be sure to answer all items.

0 = Not True (as far as you know) 1 = Somewhat or Sometimes True 2 = Very True or Often True

- 0 1 2 63. Would rather be with older people than with people of own age
 0 1 2 64. Has trouble setting priorities
 0 1 2 65. Refuses to talk
 0 1 2 66. Repeats certain acts over and over; compulsions (describe): _____

 0 1 2 67. Has trouble making or keeping friends
 0 1 2 68. Screams or yells a lot
 0 1 2 69. Secretive, keeps things to self
 0 1 2 70. Sees things that aren't there (describe): _____

 0 1 2 71. Self-conscious or easily embarrassed
 0 1 2 72. Worries about his/her family
 0 1 2 73. Meets responsibilities to his/her family
 0 1 2 74. Showing off or clowning
 0 1 2 75. Too shy or timid
 0 1 2 76. Irresponsible behavior
 0 1 2 77. Sleeps more than most other people during day and/or night (describe): _____

 0 1 2 78. Has trouble making decisions
 0 1 2 79. Speech problem (describe): _____

 0 1 2 80. Stares blankly
 0 1 2 81. Very changeable behavior
 0 1 2 82. Steals
 0 1 2 83. Is easily bored
 0 1 2 84. Strange behavior (describe): _____

 0 1 2 85. Strange ideas (describe): _____

 0 1 2 86. Stubborn, sullen, or irritable
 0 1 2 87. Sudden changes in mood or feelings
 0 1 2 88. Enjoys being with people
 0 1 2 89. Rushes into things without considering the risks
 0 1 2 90. Drinks too much alcohol or gets drunk
 0 1 2 91. Talks about killing self
 0 1 2 92. Does things that may cause trouble with the law (describe): _____

- 0 1 2 93. Talks too much
 0 1 2 94. Teases a lot
 0 1 2 95. Temper tantrums or hot temper
 0 1 2 96. Passive or lacks initiative
 0 1 2 97. Threatens to hurt people
 0 1 2 98. Likes to help others
 0 1 2 99. Dislikes staying in one place for very long
 0 1 2 100. Has trouble sleeping
 0 1 2 101. Stays away from job even when not sick and not on vacation
 0 1 2 102. Underactive, slow moving, or lacks energy
 0 1 2 103. Unhappy, sad, or depressed
 0 1 2 104. Is unusually loud
 0 1 2 105. Is disorganized
 0 1 2 106. Tries to be fair to others
 0 1 2 107. Feels he/she can't succeed
 0 1 2 108. Tends to lose things
 0 1 2 109. Likes to try new things
 0 1 2 110. Makes good decisions
 0 1 2 111. Withdrawn, doesn't get involved with others
 0 1 2 112. Worries
 0 1 2 113. Sulks a lot
 0 1 2 114. Fails to pay his/her debts or meet other financial responsibilities
 0 1 2 115. Is restless or fidgety
 0 1 2 116. Gets upset too easily
 0 1 2 117. Has trouble managing money or credit cards
 0 1 2 118. Is too impatient
 0 1 2 119. He/she is not good at details
 0 1 2 120. Drives too fast
 0 1 2 121. Tends to be late for appointments
 0 1 2 122. Has trouble keeping a job
 0 1 2 123. He/she is a happy person
124. *In the past 6 months*, about how many times per day did he/she use tobacco (including smokeless tobacco)? _____ times per day.
125. *In the past 6 months*, on how many days was he/she drunk? _____ days.
126. *In the past 6 months*, on how many days did he/she use drugs for nonmedical purposes (including marijuana, cocaine, and other drugs, except alcohol and nicotine)? _____ days.

Scoring Detail of ABCL

Narrow band scales

The details of eight narrow band scales is summarized below:

Anxious depressed: 12, 14, 31, 33, 34, 35, 45, 47, 50, 52, 71, 103, 107, 112

Withdrawn: 25, 30, 42, 48, 60, 65, 67, 69, 111

Somatic complaints: 51, 54, 56a, 56b, 56c, 56d, 56e, 56f, 56g

Thought problems: 9, 18, 40, 66, 70, 80, 84, 85, 91

Attention problems: 1, 8, 11, 13, 17, 53, 59, 61, 64, 78, 96, 101, 102, 105, 108, 119, 121

Aggressive behavior: 3, 5, 16, 28, 37, 55, 57, 68, 81, 86, 87, 95, 97, 113, 116, 118

Rule breaking: 6, 23, 26, 39, 41, 43, 76, 82, 90, 92, 114, 117, 122

Intrusive: 7, 19, 74, 93, 94, 104

Other Problems: 10, 20, 21, 22, 24, 27, 29, 32, 36, 38, 44, 46, 58, 62, 63, 72, 75, 77, 79, 83, 89, 99, 99, 100, 115, 120

Broad band scales

Internalizing: Anxious depressed + Withdarwn + Somatic complaints

Externalizing: Aggressive behavior + Rule breaking + Intrusive

Total Problem: Internalizing + Externalizing + Thought problems + Attention problems + Other Problems

Appendix B3

Assessment of DSM IV Personality Disorder: English Version

ADP-IV Questionnaire

Objectives of the questionnaire

The items of the ADP-IV Questionnaire aim to measure a number of personality traits and characteristics. These items represent a number of ways of thinking, feeling and behaving that are characteristic of you as a person. These characteristics are present from early adulthood and show up in a large number of personal and social situations.

The ADP-IV is aimed especially at personality characteristics that can be problematical and that are difficult to change. It therefore addresses personality characteristics that can be sources of stress, problems, conflicts, ... and that can impede an integrated or happy functioning in society.

Instructions for the ADP-IV Questionnaire

The questionnaire consists of 94 I-statements on personality traits. Using the two following questions, we're asking you to judge each statement based on your own life's experience.

The first question investigates to what degree the I-statement typifies you and therefore asks you to what level you agree with the I-statement. The response options vary from "totally disagree" (score 1) to "fully agree" (score 7).

If you "totally disagree", "disagree", "tend to disagree" or "neither agree nor disagree" (scores 1, 2, 3 and 4 respectively) with this statement about yourself, you can proceed to the next statement.

If you "tend to agree", "agree", "fully agree" (scores 5, 6 and 7) with the statement, we ask you – in a second question – whether the presence of this trait has caused you or others stress, pain or harm, or whether this has hindered an integrated or happy functioning in society. You can answer the second question by "not at all" (score 1), "somewhat" (score 2) or "definitely" (score 3).

We realise that judging these statements based on your own life-experience is not a simple task. We therefore recommend that you to take your time to consider these questions carefully.

Before starting to answer the questionnaire, we would like to ask you to fill in a few details on yourself on the next page.

We thank you for your cooperation.

General Information

Please submit the right information by entering your details or ticking the boxes.

Name: _____ Christian Name: _____ Date: _____

Date of birth:/...../..... Age: years

Sex: Male Female

Marital Status: single married or living with partner

divorced widow/widower

Present Living Arrangement: parental home own family

living alone other

Highest educational qualifications:

Profession:

At this moment I am:

- not receiving psychiatric or psychological treatment
 receiving psychiatric or psychological treatment, but not hospitalised in a psychiatric hospital or department
 hospitalised in a psychiatric hospital or department

Who am I?

Here we're asking you to describe yourself based on 5 positive and 5 negative characteristics that you think typical for yourself.

Positive characteristics

Negative characteristics

1.

1.

2.

2.

3.

3.

4.

4.

5.

5.

How much do you agree with
this statement about yourself?

1= totally disagree
2= disagree
3= tend to disagree
4= agree nor disagree

5= tend to agree
6= agree
7=fully agree

Has this trait ever caused you or
others any suffering or problems?

1= not at all
2= to a degree
3= definitely

1. I always assume that others will take advantage of me, hurt me or deceive me.
2. Unlike most other people, I don't desire intimacy or close relationships.
3. I often explain casual events or coincidences in a fashion that others find strange or weird.
4. I repeatedly violate norms, rules and laws and have repeatedly committed acts that could have led to my arrest (e.g., destruction of other people's properties, getting involved in fights, ...).
5. I really can't bear the thought that someone would leave me or abandon me; I therefore would do anything to avoid this happening.
6. I feel ill at ease or unappreciated whenever I'm not the centre of attention and will do anything to attract people's attention.
7. I'm surprised that others think I'm self-important; in fact I really do have superior talents and perform exceptionally well.
8. Because I fear criticism or rejection I avoid activities at work or at school that involve a lot of contact with others.
9. It is always difficult for me to make day-to-day decisions without exceeding advice and reassurance from others.
10. To ensure that I'm in control of the situation, I'm always pre-occupied with the details or order of things or I'm always devising ways of controlling, planning or laying out schemes. This leads to a general waste of time, and, moreover, the important issues get ignored.
11. I'm a depressed, dejected and despondent person by nature.
12. I refuse to meet others' expectations of me; I've always resisted these obligations indirectly or passively.
13. I keep on wondering: "Are my friends or colleagues loyal and trustworthy or are their intentions hostile really?"

01.	1	2	3	4	5	6	7	1	2	3
02.	1	2	3	4	5	6	7	1	2	3
03.	1	2	3	4	5	6	7	1	2	3
04.	1	2	3	4	5	6	7	1	2	3
05.	1	2	3	4	5	6	7	1	2	3
06.	1	2	3	4	5	6	7	1	2	3
07.	1	2	3	4	5	6	7	1	2	3
08.	1	2	3	4	5	6	7	1	2	3
09.	1	2	3	4	5	6	7	1	2	3
10.	1	2	3	4	5	6	7	1	2	3
11.	1	2	3	4	5	6	7	1	2	3
12.	1	2	3	4	5	6	7	1	2	3
13.	1	2	3	4	5	6	7	1	2	3

How much do you agree with
this statement about yourself?

1= totally disagree
2= disagree
3= tend to disagree
4= agree nor disagree

5= tend to agree
6= agree
7=fully agree

Has this trait ever caused you or
others any suffering or problems?

1= not at all
2= to a degree
3= definitely

- | | | |
|--|--|--|
| 14. I am a loner; whenever possible I choose solitary activities. | 14. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 15. I have a strong belief in supernatural activities like magic, paranormal perception, astrology, clairvoyance or telepathy. | 15. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 16. It's in my nature to deceive others, swindle or to lie to others. | 16. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 17. My relationships with other people are very intense but tend to be unstable. Fast and strong changes in feelings for other people are typical of me; one moment I can have the deepest love or admiration for someone, the next I have real feelings of hate and deep disappointment in that person. | 17. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 18. I typically try to win people by means of sexual seduction or provocation. | 18. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 19. I'm very often preoccupied with fantasies of being successful, powerful, brilliant, attractive or loved. | 19. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 20. I avoid contact with other people unless I'm sure they'll like me and will accept me without criticism. | 20. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 21. In most situations I tend to wait and see whilst leaving taking of the initiative and responsibilities to others. | 21. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 22. I typically find it difficult to finish what I have started because I demand of myself that everything I do nears total perfection. | 22. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 23. I've never had a positive image of myself; I find myself an inadequate, useless person and am inclined to look down on myself. | 23. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 24. Time and time again I complain that nobody understands me or has any esteem for me as a person. | 24. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 25. I seldom confide in other people, as it is typical of them to use confidential information maliciously against me. | 25. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 26. Having no interest in sexual encounters with someone else is characteristic of me. | 26. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |
| 27. I sometimes perceive things that others may find weird or unimaginable (like experiencing the | 27. 1 2 3 4 <input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="7"/> | <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> |

How much do you agree with this statement about yourself?

1= totally disagree
2= disagree
3= tend to disagree
4= agree nor disagree

5= tend to agree
6= agree
7= fully agree

Has this trait ever caused you or others any suffering or problems?

1= not at all
2= to a degree
3= definitely

presence of forces or persons that aren't really there).

28. I typically tend to do things without thinking first or considering the possible consequences; I can for instance decide on the spur of a moment to change jobs, home or partner.
29. I always feel terribly unsure about who or what I am and what is important in life; this relentlessly affects my self-image and my perceptions of others, the world and the future.
30. My emotions are very volatile and seem to come across as unreal or superficial.
31. Since I'm unique and very special, only exceptional people can understand me; I only want to get involved with high-flyers.
32. Even in an intimate relationship I'm scared to reveal my emotions and thoughts.
33. I find it very difficult to disagree in public; even if I totally disagree with someone I don't dare to voice my opinion and therefore will agree.
34. Tasks, work and obligations always take up so much of my time that there is never any time left for friends or leisure activities.
35. I always have a negative opinion about myself; I always subject myself to self-criticism and self-contempt, and disapprove of myself.
36. I'm a stubborn, awkward and quarrelsome person by nature.
37. Other people's words and actions often seem friendly, but what they really mean is to humiliate or threaten me.
38. Enjoying few or no activities typifies me.
39. My way of talking or thinking is different from other people, who often don't seem to understand me.

28.	1	2	3	4	5	6	7	1	2	3
29.	1	2	3	4	5	6	7	1	2	3
30.	1	2	3	4	5	6	7	1	2	3
31.	1	2	3	4	5	6	7	1	2	3
32.	1	2	3	4	5	6	7	1	2	3
33.	1	2	3	4	5	6	7	1	2	3
34.	1	2	3	4	5	6	7	1	2	3
35.	1	2	3	4	5	6	7	1	2	3
36.	1	2	3	4	5	6	7	1	2	3
37.	1	2	3	4	5	6	7	1	2	3
38.	1	2	3	4	5	6	7	1	2	3
39.	1	2	3	4	5	6	7	1	2	3

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Has this trait ever caused you or others any suffering or problems?

1= not at all
2= to a degree
3= definitely

40. I'm easily irritated and then become very aggressive; I have repeatedly been involved in fights and have hit or assaulted other people.
41. I'm a very impulsive person; I do things suddenly and without thinking, which gets me into trouble. I have done a number of things of this nature, like:
- spending loads of money irresponsibly
 - indulging in rash sexual behaviour and unsafe sex
 - abusing alcohol, medication, or drugs
 - gambling
 - behaving recklessly in traffic
 - excessive eating
 - ...
42. I constantly use my good looks to make others take notice of me.
43. Compared to others I need much more admiration and attention to feel good.
44. I'm very shy and vulnerable in social situations because I'm always worried about being criticised or rejected.
45. I find it difficult to tackle or do something independently; because my lack of self-confidence I always feel I need help.
46. Compared to other people I'm extremely conscientious, meticulous, and obstinate where principles, rules or moral values are concerned.
47. I'm a real brooder and worrier by nature.
48. For those in authoritative positions I can only have criticism or show contempt.
49. I have deeply-rooted feelings of resentment; I'll never forgive that others repeatedly humiliate, or hurt me.
50. With the exception of close relatives I haven't got any friends or confidants.
51. I'm very suspicious of others; on the whole with me they don't mean well.
52. I typically take risks or do things than can endanger my own or someone else's physical safety.

40. 1 2 3 4 5 6 7 1 2 3

41. 1 2 3 4 5 6 7 1 2 3

42. 1 2 3 4 5 6 7 1 2 3

43. 1 2 3 4 5 6 7 1 2 3

44. 1 2 3 4 5 6 7 1 2 3

45. 1 2 3 4 5 6 7 1 2 3

46. 1 2 3 4 5 6 7 1 2 3

47. 1 2 3 4 5 6 7 1 2 3

48. 1 2 3 4 5 6 7 1 2 3

49. 1 2 3 4 5 6 7 1 2 3

50. 1 2 3 4 5 6 7 1 2 3

51. 1 2 3 4 5 6 7 1 2 3

52. 1 2 3 4 5 6 7 1 2 3

How much do you agree with this statement about yourself?

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- 6= agree
- 7= fully agree

Has this trait ever caused you or others any suffering or problems?

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- 2= to a degree
- 3= definitely

- 53. I have repeatedly threatened or tried to take my own life.
- 54. It is typical of me to come up with emotional statements that I can't substantiate or support with examples.
- 55. I'm convinced that I'm someone who's entitled to priority and special treatment.
- 56. I don't seem to succeed in behaving with ease when meeting new people.
- 57. To ensure the support and attention of others I often volunteer to do unpleasant or humiliating things.
- 58. I can't throw away worn out or worthless things, even if they haven't got any sentimental value for me.
- 59. It is typical of me to only see the negative in others.
- 60. I resent and am jealous of people who experience more luck than I do.
- 61. It is typical of me to get angry or go into the counter-attack easily as I believe my good reputation is being damaged.
- 62. I don't care at all about other people's opinion of me; even their praise or criticism leaves me cold.
- 63. My emotional contacts with other people typically tend to be faulty; others for instance find that the way I express of my feelings is inappropriate, strange or weird.
- 64. Not meeting my responsibilities and obligations (whether they are financial, professional, or in caring for my family, ...) is typical of me.
- 65. I've repeatedly self-inflicted pain or deliberately injured myself.

53.	1	2	3	4	5	6	7	1	2	3
54.	1	2	3	4	5	6	7	1	2	3
55.	1	2	3	4	5	6	7	1	2	3
56.	1	2	3	4	5	6	7	1	2	3
57.	1	2	3	4	5	6	7	1	2	3
58.	1	2	3	4	5	6	7	1	2	3
59.	1	2	3	4	5	6	7	1	2	3
60.	1	2	3	4	5	6	7	1	2	3
61.	1	2	3	4	5	6	7	1	2	3
62.	1	2	3	4	5	6	7	1	2	3
63.	1	2	3	4	5	6	7	1	2	3
64.	1	2	3	4	5	6	7	1	2	3
65.	1	2	3	4	5	6	7	1	2	3

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3= definitely

66. I'm often carried-away by my emotions; others doubt their sincerity because I often express them strongly, intensely and dramatically.
67. Using others to obtain what I want seems only perfectly normal to me.
68. In social situations I feel inadequate, unattractive, and inferior.
69. It's typical of me to feel uneasy or helpless whenever I'm alone; I'm afraid of not being able to take care of myself.
70. I hate delegating tasks or working together with others as I can't bear them not sticking strictly to my way of working.
71. I'm always a real pessimist.
72. I'm always having bad luck; I haven't experienced a single stroke of good luck in my life.
73. Time and time again I suspect my partner of being unfaithful.
74. I'm someone who experiences few or no emotions; for instance I don't experience intense joy or anger.
75. My contacts with other people typically tend to be faulty; others for instance find my behaviour or looks strange, eccentric or peculiar.
76. I experience few or no feelings of guilt or remorse when I've done something wrong.
77. My moods or temper are very unstable and volatile; one moment I'm in a normal mood and the next moment I feel totally depressed, furious, irritable or anxious.
78. I'm very suggestible; my feelings and thoughts are too easily influenced by others or circumstances.
79. I find it irritating to having to show understanding or interest in the feelings and needs of others.
80. I avoid new situations or activities as much as possible to avert the problems and worries they bring with them.

66. 1 2 3 4 5 6 7 1 2 3

67. 1 2 3 4 5 6 7 1 2 3

68. 1 2 3 4 5 6 7 1 2 3

69. 1 2 3 4 5 6 7 1 2 3

70. 1 2 3 4 5 6 7 1 2 3

71. 1 2 3 4 5 6 7 1 2 3

72. 1 2 3 4 5 6 7 1 2 3

73. 1 2 3 4 5 6 7 1 2 3

74. 1 2 3 4 5 6 7 1 2 3

75. 1 2 3 4 5 6 7 1 2 3

76. 1 2 3 4 5 6 7 1 2 3

77. 1 2 3 4 5 6 7 1 2 3

78. 1 2 3 4 5 6 7 1 2 3

79. 1 2 3 4 5 6 7 1 2 3

80. 1 2 3 4 5 6 7 1 2 3

How much do you agree with this statement about yourself?

1= totally disagree
2= disagree
3= tend to disagree
4= agree nor disagree

5= tend to agree
6= agree
7= fully agree

Has this trait ever caused you or others any suffering or problems?

1= not at all
2= to a degree
3= definitely

81. When a relationship comes to an end, I try to find someone else who can take care of me and support me as soon as possible.

81. 1 2 3 4 5 6 7 1 2 3

82. I find spending money difficult, as I believe that money is there to be saved for possible disasters.

82. 1 2 3 4 5 6 7 1 2 3

83. It's in my nature to always feel guilty or remorseful.

83. 1 2 3 4 5 6 7 1 2 3

84. My attitude towards others typically swings from open hostility to remorseful promises for improvement.

84. 1 2 3 4 5 6 7 1 2 3

85. The presence of others makes me very cautious, extremely anxious and uncomfortable.

85. 1 2 3 4 5 6 7 1 2 3

86. Before the age of 15, I was a real problem child and did things like: being aggressive to other people or animals, setting things on fire or destroying them, running away from home, lying, stealing, continuously violating rules, ...

86. 1 2 3 4 5 6 7 1 2 3

87. Feeling really empty, happens a lot to me.

87. 1 2 3 4 5 6 7 1 2 3

88. Treating people too intimately too quickly is really typical of me.

88. 1 2 3 4 5 6 7 1 2 3

89. On the one hand most people are jealous of my talent and success, on the other it's unfair that without merit some people succeed far better than I do.

89. 1 2 3 4 5 6 7 1 2 3

90. Being continuously preoccupied by my fear of being left behind and having to face things alone typifies me.

90. 1 2 3 4 5 6 7 1 2 3

91. It's typical of me to adapt with difficulty to changes; most of the time I stick tenaciously to familiar ways of doing and thinking.

91. 1 2 3 4 5 6 7 1 2 3

92. Intense feelings of anger are typical of me; the least little thing often makes me so angry or furious that I nearly lose my self-control.

92. 1 2 3 4 5 6 7 1 2 3

93. Other people's second rate fiddling about or dilly-dallying tests my patience.

93. 1 2 3 4 5 6 7 1 2 3

How much do you agree with this statement about yourself?

- 1= totally disagree
- 2= disagree
- 3= tend to disagree
- 4= agree nor disagree

- 5= tend to agree
- 6= agree
- 7=fully agree

Has this trait ever caused you or others any suffering or problems?

- 1= not at all
- 2= to a degree
- 3= definitely

94. When I'm under a lot of stress, I can I loose conscious control over myself or become very suspicious.

94. 1 2 3 4 5 6 7

1 2 3

How much time did it take you to answer the questionnaire?

± Minutes

Your comments to this questionnaire:

Scoring Detail of ADP IV

Scoring details (Dimensional) of Assessment of Personality Disorders Questionnaire is mentioned below:

Paranoid PD: T1, T13, T25, T37, T49, T61, T73

Schizoid PD: T2, T14, T26, T38, T50, T62, T74

Schizotypal PD: T3, T15, T27, T39, T51, T63, T75, T85

Cluster A: Paranoid + Schizoid + Schizotypal

Anti-social PD: T4, T16, T28, T40, T52, T64, T76, T86

Borderline PD: T5, T17, T29, T41, T53, T65, T77, T87, T92, T94

Histrionic PD: T6, T18, T30, T42, T54, T66, T78, T88

Narcissistic PD: T7, T19, T31, T43, T55, T67, T79, T89, T93

Cluster B: Anti-social + Borderline + Histrionic + Narcissistic

Avoidant PD: T8, T20, T32, T44, T56, T68, T80

Dependent PD: T9, T21, T33, T45, T57, T69, T81, T90

Obsessive Compulsive PD: T10, T22, T34, T46, T58, T70, T82, T91

Cluster C: Avoidant + Dependent + Obsessive Compulsive

NOS Depressive PD: T11, T23, T35, T47, T59, T71, T83

NOS Passive Aggressive: T12, T24, T36, T48, T60, T72, T84

Total cluster: total score is computed by adding all scores

Appendix B4

Informed Consent: English Version

Dear Participants,

I am Saira Khan, Ph. D research scholar at National Institute of Psychology, Quaid-i-Azam University, Islamabad. I am working on assessment of personality as it is a part of research project being carried out at National Institute of Psychology, Quaid-i-Azam University, Islamabad.

Dear participants,

Thank you so much for agreeing to participate in my research. Before you start filling the questionnaires, I would like to get your consent for the research and to give you the brief description of my research. The research is about aspects of your personality and you will be asked to express your opinion regarding these aspects appropriately. There are no definite right and wrong answers so kindly express your opinion with honesty

The results of the present study will provide guidelines for the personality assessment in Pakistan.

Your participation in this research will be voluntary, and you will have the right to leave the survey at any stage. It is also to be assured that your provided information will be kept confidential and will not be used anywhere else other than this research.

Signature: _____

Appendix C1

Informed Consent: Urdu Version

معزز شرکاء،

میں سائزہ خان قومی ادارہ نفسیات میں پی۔ ایچ۔ ڈی کی طالبہ ہوں اور قومی ادارہ نفسیات میں شخصیت کے متعلق کی جانے والی تحقیق میں بطور ریسرچر کام کر رہی ہوں۔

آپ کا بہت شکریہ کہ آپ نے میری تحقیق میں حصہ لینے کے لیے رضامندی ظاہر کی۔ اس سوالنامے کو پُر کرنے سے پہلے میں آپ کی اجازت اور اس تحقیق کے متعلق مزید معلومات فراہم کرنا چاہوں گی۔ اس تحقیق میں آپ سے آپ کی شخصیت کے پہلوؤں کے متعلق رائے لی جائے گی اور آپ سے گزارش کی جائے گی کہ آپ جہاں تک ممکن ہو احتیاط اور سچائی سے اپنی رائے بیان کریں کیونکہ پوچھے گئے سوالات میں سچ اور غلط کا تصور نہیں ہے۔

آپ کا نقطہ نظر پاکستان میں شخصیت کے متعلق تحقیق کے لیے کارآمد ثابت ہو سکے گا۔ اس تحقیق میں آپ کی شمولیت رضا کارانہ ہوگی اور آپ کسی بھی وقت اس تحقیق کو چھوڑ سکتے ہیں۔ آپ کو آگاہ کیا جاتا ہے کہ آپ کی فراہم کردہ معلومات صرف اس تحقیق کا حصہ ہوں گی اور صیغہ راز میں رکھی جائیں گی۔

دستخط

Appendix C2

Adult Self Report for Adults: Urdu Version

For Office use only ID#		ADULT SELF REPORT FOR AGES 18- 59		ASEBA	
آپ کا پیشہ۔ چاہے ابھی کام نہیں کر رہا۔ برائے مہربانی مخصوص پیشہ بتائیے۔ جیسے کہ ملینیک، ٹیچر، مزدور، سیکرٹری، کسان، دکاندار، طالب علم، وغیرہ		پہلا درمیانہ آخری		آپ کا پورا نام	
		ذات		آپ کی عمر	
آپ کا پیشہ _____ شریک حیات کا پیشہ _____		آپ کی تاریخ پیدائش		آج کی تاریخ	
		_____ سال _____ تاریخ _____		_____ سال _____ تاریخ _____	
برائے مہربانی اس فارم کو اپنی رائے کے مطابق پُر کریں۔ بے شک دوسرے لوگ اس سے متفق نہ ہوں۔ کسی بھی سوال پر بہت زیادہ وقت صرف کرنے کی ضرورت نہیں۔ اس کے علاوہ اضافی نکات یا اپنی رائے دینے کیلئے آپ آزاد ہیں۔ اس بات کو یقینی بنائیں کہ آپ نے تمام سوالات کے جوابات دیئے ہیں۔		آپ کی تعلیم (سالوں میں بیان کریں)		1 <input type="checkbox"/> سکول نہیں کیا	
		7 <input type="checkbox"/> گریجویٹ گلاس میں کیا مگر پڑھائی مکمل نہیں کی		2 <input type="checkbox"/> پرائمری	
		8 <input type="checkbox"/> لی اے۔ گریجویٹ		3 <input type="checkbox"/> ہل	
		9 <input type="checkbox"/> ایم اے کی عادت میں کیا مگر پڑھائی مکمل نہیں کی		4 <input type="checkbox"/> میٹرک	
		10 <input type="checkbox"/> ایم اے ماسٹرزز		5 <input type="checkbox"/> کالج یا مگر پڑھائی مکمل نہیں کی	
		11 <input type="checkbox"/> ایم اے۔ 12 <input type="checkbox"/> پی ایچ ڈی		6 <input type="checkbox"/> انٹرنیٹ	
		13 <input type="checkbox"/> کوئی اور تعلیم قابلیت			

1. دوست:

A- آپ کے تقریباً کتنے قریبی دوست ہیں۔ (خاندان کے افراد کو شامل نہ کریں)

کوئی نہیں 1 2 3 4 یا زائد

B- تقریباً سب سے قریبی دوستوں میں کتنی بار آپ اپنے دوستوں سے رابطہ کرتے کرتے ہیں (شامل ملاقات، فون، خط، ای میل وغیرہ)

کبھی نہیں 1 یا 2 3 یا 4 5 یا زائد

C- قریبی دوستوں سے آپ کے تعلقات کس حد تک بڑھے ہیں۔

اچھے اچھے تعلقات میں جا رہا ہوا ہے۔ اوسط سے بہتر (عام سے بہتر) اوسط سے بہتر (عام سے بہتر)

D- ایک سب سے قریبی دوست یا خاندان میں سے کوئی آپ سے ملنے آتا ہے۔

کبھی نہیں 1 یا 2 3 یا 4 5 یا زائد

2. شریک حیات:

آپ کی ازدواجی حیثیت کیا ہے؟

کبھی شادی نہیں ہوئی شادی شدہ لیکن شریک حیات سے علیحدہ رہ رہی ہیں شادی شدہ شریک حیات کے ساتھ رہ رہی ہیں

طلاق یافتہ بیوہ بچھلے 6 مہینوں میں کیا آپ اپنے شریک حیات کے ساتھ رہ رہی ہیں

نہیں ہاں

سوال نمبر A سے H کے لیے۔ بچھلے 6 مہینوں میں اپنے ازدواجی تعلقات کے بارے میں 2، 1، 0 پر دائرہ لگا کر وضاحت کیجئے۔

0 = درست نہیں 1 = کچھ حد تک کبھی کبھار درست 2 = بہت حد تک درست

E	0	1	2	میرے اور میرے شریک حیات کے رہائش کے متعلق اختلافات ہیں مثلاً کہاں رہتا ہے	A	0	1	2	میرے اپنے شریک حیات سے اچھے تعلقات ہیں
F	0	1	2	مجھے اپنے شریک حیات کے خاندان کے ساتھ مشکلات پیش آتی ہیں	B	0	1	2	مجھے اور میرے شریک حیات کو ذرا داریاں بانٹنے میں مشکلات پیش آتی ہیں
G	0	1	2	میں اپنے شریک حیات کے دوستوں کو پسند نہ کرتی ہوں	C	0	1	2	میں اپنے شریک حیات سے مطمئن محسوس کرتا کرتی ہوں
H	0	1	2	میں اپنے شریک حیات کی حرکات و رویے سے تنگ ہوں	D	0	1	2	میں اور میرا شریک حیات ایک جیسی سرگرمیوں سے لطف اندوز ہوتے ہیں

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برائے مہربانی اس بات کو یقینی بنائیں کہ آپ نے تمام سوالات کے جوابات دیئے ہیں
دوسرے نسخے پر جائیے۔

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اس فارم کو بغیر اجازت کاپی کرنا غیر قانونی ہے

Page 1

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برائے مہربانی اس بات کو یقینی بنائیں کہ آپ نے تمام سوالات کے جوابات دیئے ہیں

3. خاندان:

درمیانے یا اوسط سے برا	درمیانہ یا اوسط	اوسط سے بہتر	رابطہ نہیں
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

دوسروں کی نسبت کس حد تک آپ کے اپنے

A بھائیوں سے اچھے تعلقات ہیں؟

B بہنوں سے اچھے تعلقات ہیں؟

C والدہ سے اچھے تعلقات ہیں؟

D والد سے اچھے تعلقات ہیں؟

E گئے بیلے بالک بچوں کے ساتھ اچھے تعلقات ہیں؟

1. سب سے بڑا بچہ

2. دوسرے نمبر پر بڑا بچہ

3. تیسرے نمبر پر بڑا بچہ

4. کوئی اور بچہ

F سوتیلے بچوں سے اچھے تعلقات ہیں؟

4. نوکری: کیا کچھ چومنتوں میں بھی آپ نے مساوی (متوازی) پر کام کیا ہے (کام کی نوعیت واضح کیجئے)

نہیں

حصہ 5 پر جانیں

ہاں

کام کی نوعیت واضح کیجئے

کچھ 6 مہینوں میں کام کے تجربے کو بیان کرنے کیلئے سوال نمبر A سے 1 تک کے جوابات کی نشاندہی کیلئے 0، 1، 2 پر دائرہ لگائیے

0 = کچھ نہیں 1 = کچھ حد تک درست 2 = اکثر درست حد تک درست

A 0 1 2	میں دوسرے لوگوں کے ساتھ کام کر لیتا آتی ہوں
B 0 1 2	مجھے سرپرست (Boss) کے ساتھ کام کرنے میں مشکل پیش آتی ہے
C 0 1 2	میں اپنا کام اچھا کرتی ہوں
D 0 1 2	مجھے اپنا کام مکمل کرنے میں مشکل پیش آتی ہے
E 0 1 2	میں اپنے کام کی صورت حال سے مطمئن ہوں
F 0 1 2	میں ایسی چیزیں کرتا کرتی ہوں جن سے شاید میری نوکری چھوٹ جائے
G 0 1 2	جب کوئی بیماری یا چھٹیاں نہ ہوں جب بھی میں کام سے دور رہتا رہتی ہوں
H 0 1 2	میرا کام میرے لئے بہت زیادہ بڑا دکا کاٹ ہے
I 0 1 2	میں اپنے کام کے متعلق بہت پریشان رہتا رہتی ہوں

5. تعلیم: کیا آپ کچھ 6 مہینوں کے دوران سکول، کالج یا کسی اور تعلیمی یا تربیتی پروگرام کا حصہ رہے ہیں

نہیں

حصہ 5 پر جانیں

ہاں

سکول یا پروگرام کی نوعیت واضح کیجئے

آپ کوئی نوکری یا ڈپلومہ حاصل کر رہے ہیں (واضح کیجئے)

آپ کی نوکری یا ڈپلومہ کب مکمل ہوگا؟

کچھ 6 مہینوں کے دوران تعلیمی تجربے کی وضاحت کیلئے A سے E تک کے جوابات کی نشاندہی کیلئے 0، 1، 2 پر دائرہ لگائیے

0 = کچھ نہیں درست نہیں 1 = کچھ حد تک درست 2 = اکثر درست حد تک درست

A 0 1 2	میرے درجے طلبوں کے ساتھ اچھے تعلقات ہیں
B 0 1 2	میں جو مسائل کرتا کرتی ہوں وہ میری صلاحیت کے متن مطابق ہے
C 0 1 2	مجھے کام سیکھنے میں مشکل پیش آتی ہے
D 0 1 2	میں اپنی تعلیمی صورت حال سے مطمئن ہوں
E 0 1 2	میں ایسی چیزیں کرتا کرتی ہوں جن سے شاید میں کام ہواؤں

6. کیا آپ کو کوئی بیماری یا مفذوری ہے۔ نہیں ہاں — وضاحت کیجئے:

7. خاندان، کام، تعلیم یا کسی اور چیز کے متعلق اپنی پریشانی کی وضاحت کریں: کوئی پریشانی نہیں

8. اپنے متعلق بہترین چیزوں کی وضاحت کریں:

برائے مہربانی اس بات کو یقینی بنائیں کہ آپ نے تمام سوالات کے جوابات دیئے ہیں

پچھ لوگوں سے متعلق ایک گہرست ہے ہر سوال پر پچھلے 6 مہینے میں اپنے متعلق بتانے کیلئے 1.0 یا 2 پر دائرہ لگائیں۔

برائے مہربانی تمام سوالوں کے جواب دیجئے چاہے اس میں سے کچھ آپ پر لاگو نہ ہوں۔

0 = درست نہیں 1 = کسی حد تک درست رہی کبھی کبھار درست 2 = بہت حد تک درست اکثر درست

37	0	1	2	میں بہت زیادہ لڑائی جھگڑوں میں پڑتا رہتی ہوں	1	0	1	2	میں بہت بھلکڑ ہوں
38	0	1	2	پڑوسیوں سے میرے تعلقات بُرے ہیں	2	0	1	2	میں اپنے مواقع کا اچھا استعمال کرتا رہتی ہوں
39	0	1	2	میں ایسے لوگوں کے ساتھ گھومتا پھرتا ہوں جو مشکلات کو دعوت دیتے ہیں	3	0	1	2	میں بہت زیادہ بحث کرتا رہتی ہوں
40	0	1	2	میں ایسی آوازیں یا باتیں سنتا ہوں جو لوگوں کے خیال میں موجود نہیں (وضاحت کیجئے)	4	0	1	2	میں اپنی ملاحظیت کے مطابق کام کرتا رہتی ہوں
41	0	1	2	میں بے اختیار ہو کر سوچے سمجھے بغیر کام کرتا رہتی ہوں	5	0	1	2	میں دوسروں کو اپنے مسائل کا ذمہ دار ٹھہراتا ٹھہراتی ہوں
42	0	1	2	میں دوسرے لوگوں کے ساتھ رہنے کی بجائے اکیلا رہنا پسند کرتا رہتی ہوں	6	0	1	2	میں نشیات کا علاج معالجے کے علاوہ استعمال کرتا رہتی ہوں (شراب اور تبا کو کو کال کر) وضاحت کیجئے
43	0	1	2	میں جھوٹ بولتا رہتی ہوں، دھوکا دیتا رہتی ہوں	7	0	1	2	میں ڈیکھیں مارتا ہوں
44	0	1	2	میں اپنی ذمہ داریوں سے مطلوب رہے بس محسوس کرتا رہتی ہوں	8	0	1	2	مجھے غور کرنے اور زیادہ دیر تک توجہ مرکوز کرنے میں مشکل پیش آتی ہے
45	0	1	2	میں پریشانی اور ذہنی تناؤ کا شکار ہوں	9	0	1	2	میں کچھ خیالات کو داغ سے نہیں نکال پاتا رہتی ہوں (وضاحت کیجئے)
46	0	1	2	میرے ہم کے حصے بے ساختہ یا بے جہن حرکات کرتے ہیں (وضاحت کیجئے)	10	0	1	2	مجھے تک کر بیٹھے میں مشکل پیش آتی ہے
47	0	1	2	مجھ میں اعتماد کی کمی ہے	11	0	1	2	میں دوسروں کا بہت محتاج ہوں
48	0	1	2	دوسرے مجھے پسند نہیں کرتے	12	0	1	2	میں اکیلا محسوس کرتا ہوں
49	0	1	2	میں کچھ چیزیں دوسرے لوگوں سے بہتر کر سکتا رہتی ہوں	13	0	1	2	میں الجھا ہوا محسوس کرتا ہوں اور مجھے کچھ بھائی نہیں دیتا
50	0	1	2	میں بہت زیادہ خوف یا تشویش کا شکار ہوں	14	0	1	2	میں بہت رو دتا رہتی ہوں
51	0	1	2	میں محسوس کرتا رہتی ہوں کہ میرا سر گھوم رہا ہے یا مجھے جھکنا ہے	15	0	1	2	میں کافی ایما ندر ہوں
52	0	1	2	میں بہت احساس جرم رکھتا ہوں رہتی ہوں	16	0	1	2	میں کینہ پرور ہوں
53	0	1	2	مجھے مستقل کی منصوبہ بندی میں مشکل پیش آتی ہے	17	0	1	2	میں بہت زیادہ جاگنی آنکھوں سے خواب دیکھتا رہتی ہوں
54	0	1	2	میں بغیر کسی وجہ کے تھکاؤٹ محسوس کرتا رہتی ہوں	18	0	1	2	میں جان بوجھ کر خود کو نقصان پہنچانے یا مارنے کی کوشش کرتا رہتی ہوں
55	0	1	2	بے حد خوشی اور اداسی کے درمیان میرا مزاج بدلتا رہتا ہے	19	0	1	2	میں بہت زیادہ توجہ حاصل کرنے کی کوشش کرتا رہتی ہوں
56	0	1	2	جسمانی مسائل (بغیر کسی طبی وجہ کے)	20	0	1	2	میں اپنی چیزوں کو تباہ و برباد کرتا رہتی ہوں
a	0	1	2	دکھنا درد (معدہ اور سر درد کے علاوہ)	21	0	1	2	میں دوسروں کی چیزوں کو تباہ و برباد کرتا رہتی ہوں
b	0	1	2	سر درد	22	0	1	2	میں اپنے مستقل کے بارے میں پریشان ہوتا رہتی ہوں
c	0	1	2	حکمی، بیاض محسوس کرنا	23	0	1	2	میں کام پر یا کبھی اور اصول توڑتا رہتی ہوں
d	0	1	2	آنکھوں کے مسائل (اگر چشموں سے ٹھیک نہ ہوں) وضاحت کیجئے	24	0	1	2	میں اتنا چھانٹتا ہوں کتنا کھاتا چاہیے
e	0	1	2	جلدی مرکز یا دوسرے جلدی مسائل	25	0	1	2	میں دوسرے لوگوں کے ساتھ سلوک سے نہیں رہتا رہتی
f	0	1	2	معدے کا درد	26	0	1	2	میں کچھ ایسا کرنے کے بعد جو مجھے نہیں کرنا چاہیے، شرمندگی محسوس نہیں کرتا رہتی
g	0	1	2	تے مارنا کئی آنا	27	0	1	2	میں دوسروں سے حسد محسوس کرتا رہتی ہوں
h	0	1	2	دل کا بہت تیز دھڑکنا	28	0	1	2	مجھے فائدہ مند کے ساتھ سلوک سے رہنے میں مشکل پیش آتی ہے
i	0	1	2	جسم کے حصوں میں لرزش یا سنسنی کا احساس ہونا	29	0	1	2	میں کچھ خاص جانوروں، جگہوں اور صورت حال سے خوفزدہ ہوں (وضاحت کیجئے)
57	0	1	2	میں لوگوں پر جسمانی طور پر حملہ آور ہوتا رہتی ہوں	30	0	1	2	جس مخالف سے میرے تعلقات بہت اچھے نہیں ہیں
58	0	1	2	میں اپنی جلد یا جسم کے دوسرے حصوں کو نوچتا رہتی ہوں (وضاحت کیجئے)	31	0	1	2	میں خوفزدہ ہوں کہ میں کچھ برا سوچ یا کرنے جاؤں
59	0	1	2	میں ان چیزوں کو مکمل کرنے میں ناکام رہتا رہتی ہوں	32	0	1	2	میں محسوس کرتا ہوں کہ مجھے بہترین ہونا چاہیے
60	0	1	2	جو مجھے کر لینے چاہیں	33	0	1	2	مجھے لگتا ہے کہ کوئی مجھ سے محبت نہیں کرتا
61	0	1	2	میں بہت کم چیزوں سے لطف اندوز ہوتا ہوں	34	0	1	2	مجھے محسوس ہوتا ہے کہ دوسرے مجھے نقصان پہنچانے کے لیے تیار ہیں
62	0	1	2	کام میں میری کارکردگی بُری ہے	35	0	1	2	میں کمتر تھیر محسوس کرتا رہتی ہوں
63	0	1	2	میں پھوپھو یا بے ڈھنگا ہوں رہتی ہوں	36	0	1	2	میں بہت زیادہ زخمی ہوتا رہتی ہوں، حادثات کا شکار رہتا رہتی ہوں

برائے مہربانی اس بات کو یقینی بنائیں کہ آپ نے تمام سوالات کے جوابات دیئے ہیں

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0 = درست نہیں 1 = کسی حد تک درست برکھی کبھار درست 2 = بہت حد تک درست اکثر درست

93	0 1 2	میں بہت زیادہ بول رہا ہوں	63	0 1 2	میں اپنے ہم عمروں کی بجائے بڑی عمر کے لوگوں کے ساتھ رہنا پسند کرتا کرتی ہوں
94	0 1 2	میں دوسروں کو بہت زیادہ چراتا چراتی ہوں	64	0 1 2	مجھے ترجیحات مقرر کرنے میں مشکل پیش آتی ہیں
95	0 1 2	میں مغل یا کر مہراج ہوں	65	0 1 2	میں بات کرنے سے انکار کرتا کرتی ہوں
96	0 1 2	میں بھٹی گل کے متعلق بہت زیادہ ہوجا رہا ہوں	66	0 1 2	میں بعض حرکات کو بار بار دہراتا دہراتی ہوں (وضاحت کیجئے)
97	0 1 2	میں لوگوں کو تکلیف مازا نہ پہنچانے کی دھمکیاں دیتا دیتی ہوں	67	0 1 2	مجھے دوست بنانے یا بنانے رکھنے میں مشکل پیش آتی ہے
98	0 1 2	میں دوسروں کی مدد نہ پسند کرتا کرتی ہوں	68	0 1 2	میں بہت زیادہ چہچہاتا ہوں
99	0 1 2	میں ایک ہی جگہ پر بہت دیر رہنے کو پسند کرتا کرتی ہوں	69	0 1 2	میں رازداری برتنے والا رازداری ہوں چیزیں خود تک محدود رکھتا کرتی ہوں
100	0 1 2	مجھے سوئے رہنے میں مشکل پیش آتی ہے (وضاحت کیجئے)	70	0 1 2	میں ایسی چیزیں دیکھتا کرتی ہوں جو لوگوں کے خیال میں موجود نہیں ہوتیں (وضاحت کیجئے)
101	0 1 2	جب کوئی بیماری یا پھنسیاں نہ ہوں تب بھی میں کام سے دور رہتا رہتی ہوں	71	0 1 2	میں اپنے بارے میں حساس اور آسانی سے شرمندہ ہونے والا ہوں
102	0 1 2	مجھ میں بہت زیادہ توانائی نہیں ہے	72	0 1 2	میں اپنے خاندان کے لئے پریشان ہوتا ہوں
103	0 1 2	میں ناخوش، غمزدہ یا ادا ہوں	73	0 1 2	میں اپنے خاندان کی ذمہ داریوں کو پورا کرتا کرتی ہوں
104	0 1 2	میں دوسروں سے زیادہ بلند آواز (پرشور) ہوں	74	0 1 2	میں دکھاوا یا سخرائی کرنے والا ہوں
105	0 1 2	لوگ سوچتے ہیں کہ میں غیر منظم ہوں	75	0 1 2	میں بہت زیادہ بول یا شریک شریک ہوں
106	0 1 2	میں دوسروں سے شغفانہ رویہ رکھنے کی کوشش کرتا کرتی ہوں	76	0 1 2	میرا رویہ غمزدہ اور انا ہے
107	0 1 2	مجھے محسوس ہوتا ہے کہ میں کامیاب نہیں ہو سکتا کرتی	77	0 1 2	میں دوسرے بہت سے لوگوں کی نسبت دان اور زیارات میں زیادہ متاثر ہوں (وضاحت کیجئے)
108	0 1 2	میں چیزیں گلنے کا رجحان رکھتی رہتا ہوں	78	0 1 2	مجھے نپٹے کرنے میں مشکل پیش آتی ہے
109	0 1 2	میں جدت پسند ہوں۔ میں چیزیں کرنے کو پسند کرتا کرتی ہوں	79	0 1 2	مجھے بولنے بات کرنے میں مسائل ہیں (وضاحت کیجئے)
110	0 1 2	میری خواہش ہے کہ میں دوسری شخص کا ہوتا	80	0 1 2	میں اپنے حق کیلئے آواز اٹھاتا ہوں
111	0 1 2	میں دوسروں کے ساتھ گھٹنے ملنے سے گریز کرتا ہوں کرتی ہوں	81	0 1 2	میں محسوس ہوتا ہوں (رویہ کمزوری تبدیل ہوتا ہے)
112	0 1 2	میں بہت فکر کرتا کرتی ہوں	82	0 1 2	میں چوری کرتا کرتی ہوں
113	0 1 2	میں محسوس ہوتا ہے کہ میں اپنے تعلقات کے بارے میں پریشان رہتا رہتی ہوں	83	0 1 2	میں آسانی سے ہر بات مانگتا ہوں کا شکار ہوجاتا رہتا ہوں
114	0 1 2	میں اپنے واجبات کو فریاد کرنے میں یا دوسری مالی ذمہ داریوں کو پورا کرنے میں ناکام ہوتا رہتا ہوں	84	0 1 2	میں ایسی چیزیں کرتا ہوں جو لوگوں کے خیال میں عجیب و غریب ہیں (وضاحت کیجئے)
115	0 1 2	میں بہت بے آرام اور بے چین محسوس کرتا کرتی ہوں	85	0 1 2	میری سوچ ایسی ہے جو دوسروں کو عجیب و غریب لگے (وضاحت کیجئے)
116	0 1 2	میں بہت جلدی پریشان ہوجاتا رہتا ہوں	86	0 1 2	میں صدفی، بد مزاج یا چہچہاتا ہوں
117	0 1 2	مجھے کریٹ کا ڈیا پیسوں کے (صحیح طریقے سے) استعمال میں مشکل پیش آتی ہے	87	0 1 2	میرا موڈ اور احساسات ایک جگہ تبدیل ہوتے ہیں
118	0 1 2	میں بہت بے ہمت ہوں	88	0 1 2	میں دوسرے لوگوں کے ساتھ ہونے سے لطف اندوز ہوتا ہوں
119	0 1 2	میں تفصیلی جاننے (وضاحت میں اچھا نہیں ہوں)	89	0 1 2	میں خطرات نقصان کا اندازہ کرنے میں چیزوں میں جلد بازی کرتا کرتی ہوں
120	0 1 2	میں بہت تیز گاڑی چلاتا رہتا ہوں	90	0 1 2	میں بہت زیادہ شراب پیچتا ہوں۔ نئے میں دھت رہتا رہتی ہوں
121	0 1 2	میں مقرر وقت (ملاقات) پر دیر سے پہنچتا رہتا ہوں	91	0 1 2	میں خود کو مارنے کے متعلق سوچتا ہوں
122	0 1 2	مجھے لوگوں کی پر رہنے میں مشکل پیش آتی ہے	92	0 1 2	میں ایسی چیزیں کرتا کرتی ہوں جن سے قانونی مسائل پیدا ہوں (وضاحت کیجئے)
123	0 1 2	میں بہت خوش باش انسان ہوں			
124	0 1 2	مجھے چھینٹوں میں دن میں کئی مرتبہ آپ نے تمہارے استعمال کیا (عجیب و غریب والے تمہارے کو سمیت) دن میں _____ مرتبہ			
125	0 1 2	مجھے چھینٹوں میں کتنے دن آپ شراب میں دھت ہوئے _____ دن			
126	0 1 2	مجھے چھینٹوں میں آپ نے کتنے دن نشیات کا تجربہ کیا استعمال کیا (شہول بھگ، کوکین اور دوسری نشیات) (شراب اور ٹیکوئین کے علاوہ) _____ دن			

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Appendix C3

Adult Behavior Checklist for Adults: Urdu Version

For Office use only ID#		ADULT BEHAVIOR CHECKLIST FOR AGES 18- 59		ASEBA		
فرد کا پتہ چاہے ابھی کام نہیں کر رہا۔ برائے مہربانی مخصوص پتہ بتائیے۔ جیسے کہ ملکیک، ٹیچر، مزدور، سٹریٹ، کسان، دکاندار، طالب علم، وغیرہ فرد کا پتہ _____ شریک حیات کا پتہ _____ یہ فارم _____ پر کر رہا ہے۔ (نام بتائیے)		فرد کا پورا نام	پہلا	درمیانہ	آخری	فرد کی جنس <input type="checkbox"/> مرد <input type="checkbox"/> عورت
فرد سے آپ کا رشتہ شریک حیات <input type="checkbox"/> بھوار (خصوصی رشتہ بتائیے) <input type="checkbox"/>		فرد کی تاریخ		آج کی تاریخ		
برائے مہربانی اس فارم کو اپنی رائے کے مطابق پُر کریں۔ بے شک دوسرے لوگ اس سے متعلق نہ ہوں۔ کسی بھی سوال پر بہت زیادہ وقت صرف کرنے کی ضرورت نہیں۔ اس کے علاوہ انسانی کمالات یا اپنی رائے دینے کیلئے آپ آزاد ہیں۔ اس بات کو یقینی بنائیں کہ آپ نے تمام سوالات کے جوابات دیئے ہیں۔		7 <input type="checkbox"/> گریجویٹ کلاس میں کیا کر پڑھائی مکمل نہیں کی 8 <input type="checkbox"/> نیا ہے۔ گریجویٹ 9 <input type="checkbox"/> ایم اے کی جماعت میں کیا کر پڑھائی مکمل نہیں کی 10 <input type="checkbox"/> ایم اے ماسٹرز 11 <input type="checkbox"/> ایم اے 12 <input type="checkbox"/> پی ایچ ڈی 13 <input type="checkbox"/> کوئی اور تعلیمی قابلیت		7 <input type="checkbox"/> سکول نہیں گیا 8 <input type="checkbox"/> پرائمری 9 <input type="checkbox"/> مل 10 <input type="checkbox"/> میٹرک 11 <input type="checkbox"/> کالج کیا کر پڑھائی مکمل نہیں کی 12 <input type="checkbox"/> ایف اے - انٹرنیٹ		

1. دوست :

A- اس کے تقریباً کتنے قریبی دوست ہیں۔ (خاندان کے افراد کو شامل نہ کریں)

کوئی نہیں 1 2 3 یا 4 4 یا زائد

B- تقریباً سینے میں کتنی بار یہ اپنے دوستوں سے رابطہ کرتا کرتی ہے (بشمول ملاقات، فون، خط، ای میل وغیرہ)

کوئی نہیں 1 2 3 یا 4 5 یا زائد

C- قریبی دوستوں سے اس کے تعلقات کس حد تک اچھے ہیں۔

خوب (خراب) (اوسط) (بہتر) (بہتر) (عام سے بہتر) (اوسط سے بہتر)

D- ایک سینے میں کتنی مرتبہ دوست یا خاندان میں سے کوئی اسے ملے آتا ہے۔

کوئی نہیں 1 2 3 یا 4 5 یا زائد

2. شریک حیات :

اس کی ازدواجی حیثیت کیا ہے؟

کوئی شادی نہیں ہوئی شادی شدہ لیکن شریک حیات سے علیحدہ رہتا رہتی ہوں شادی شدہ شریک حیات کے ساتھ رہتا رہتی ہوں

ملاقات یافتہ بچے 6 مہینوں میں کیا یہ کسی بھی وقت اپنے شریک حیات کے ساتھ رہا رہی ہیں

نہیں برائے مہربانی صفحہ نمبر 2 کی جانب بڑھ جائیے۔

ہاں سوال نمبر A سے H کے لیے پچھلے 6 مہینوں میں اس کے ازدواجی تعلقات کے بارے میں 2، 1، 0 پر دائرہ لگا کر وضاحت کیجئے۔

0 = درست نہیں (جس حد تک آپ کو مطمئن ہے) = 1 = کچھ حد تک یا کبھی کبھار درست = 2 = بہت حد تک درست

A 0 1 2	شریک حیات کے ساتھ اچھے تعلقات ہیں	E 0 1 2	اپنے شریک حیات سے رہائش کے متعلق اختلاف رکھتا رکھتی ہے مثلاً کہاں رہنا ہے
B 0 1 2	اپنے شریک حیات کے ساتھ ذمہ داریاں بانٹنے میں مشکلات پیش آتی ہیں	F 0 1 2	شریک حیات کے خاندان کے ساتھ مشکلات پیش آتی ہیں
C 0 1 2	اپنے شریک حیات سے مطمئن لگتا لگتی ہے	G 0 1 2	شریک حیات کے دوستوں کو پسند کرنا کرتی ہے
D 0 1 2	بطور شریک حیات ایک جیسی سرگرمیوں سے لطف اندوز ہوتے ہیں	H 0 1 2	شریک حیات کی حرکات / رویے سے تنگ ہے

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دوسرے صفحے پر جائیے۔

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اس فارم کو بغیر اجازت کاپی کرنا غیر قانونی ہے

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برائے مہربانی اس بات کو یقینی بنائیں کہ آپ نے تمام سوالات کے جوابات دیئے ہیں

3. کیا اسے کوئی معذوری یا بیماری ہے نہیں ہاں — وضاحت کیجئے

4. برائے مہربانی اگر آپ کو اس کے متعلق کوئی پریشانی لاحق ہے تو وضاحت کریں کوئی فکر نہیں

5. برائے مہربانی اس کے متعلق بہترین چیزیں بتائیے

برائے مہربانی اس بات کو یقینی بنائیں کہ آپ نے تمام سوالات کے جوابات دیئے ہیں

لوگوں کے متعلق مجھے دیئے گئے کچھ بیانات کی فہرست ہے۔ ہر بیان کو پڑھتے ہوئے یہ فیصلہ کریں کہ آیا پچھلے 6 مہینوں میں یہ اس فرد پر لاگو ہوتا ہے کہ نہیں پھر 1، 0، 2 پر دائرہ لگا کر اس فرد کے بارے میں بتائیے۔ برائے مہربانی ہر سوال کا جواب جتنا بہتر آپ دے سکتے ہیں دہیجئے چاہے ان میں سے کچھ اس فرد پر لاگو ہونے دکھائی نہ دیتا ہو

0 = درست نہیں (جس حد تک آپ کو معلوم ہے) 1 = کسی حد تک درست رہی کبھی کبھار درست 2 = بہت حد تک درست ماکز درست

				1	0	1	2	یہ بہت بھگلو ہے
				2	0	1	2	اپنے سوانح کا اچھا استعمال کرتا کرتی ہے
				3	0	1	2	بہت بحث کرتا کرتی ہے
				4	0	1	2	ملا جیت کے مطابق کام کرتا کرتی ہے
				5	0	1	2	اپنے مسائل کا ذمہ دار دوسروں کو ٹھہراتا ٹھہراتی ہے
				6	0	1	2	خشیات کا علاج معالجے کے علاوہ استعمال کرتا کرتی ہے (شراب اور تھپا کو نکال کر) وضاحت کیجئے
				7	0	1	2	ڈبکھیں مارتا کرتی ہے۔ شہنی بگھارتا بگھارتی ہے
				8	0	1	2	خورشیں کرسکتا کرتی زیادہ دیر تک تو چرم کو نہیں کرسکتا کرتی
				9	0	1	2	کچھ خیالات کو دماغ سے نکال پاتا کرتی۔ وہی (وضاحت کیجئے)
				10	0	1	2	ٹک کر نہیں بیٹھ سکتا، بے چین یا بہت زیادہ بھرتلا ہے
				11	0	1	2	دوسروں کا بہت محتاج ہے
				12	0	1	2	اکیلے پن کی شکایت کرتا کرتی ہے
				13	0	1	2	اچھا ہوا ہے
				14	0	1	2	بہت رہتا کرتی ہے
				15	0	1	2	خاصا ایماندار ہے
				16	0	1	2	بے رحم ہو سکتا دینے والا روایا کہنے پرور ہے
				17	0	1	2	جانتی آنکھوں سے خواب دیکھتا دیکھتی ہے۔ خیالات میں بھولتا جاتا جاتی ہے
				18	0	1	2	جان بوجھ کر خود کو نقصان پہنچاتا پہنچاتی ہے یا خود کسی کی کوشش کرتا کرتی ہے
				19	0	1	2	بہت زیادہ توجہ کا مطالبہ کرتا کرتی ہے
				20	0	1	2	اپنی چیزوں کو تباہ کرنا دیکھتا دیکھتی ہے
				21	0	1	2	دوسروں کی چیزوں کو تباہ کرنا دیکھتا دیکھتی ہے
				22	0	1	2	اپنے مستقبل کے بارے میں پریشان ہوتا رہتی ہے
				23	0	1	2	کام پر یا کہیں اور اصول توڑتا توڑتی ہے
				24	0	1	2	مجھ سے کھانا نہیں کھاتا کھاتی
				25	0	1	2	دوسرے لوگوں کے ساتھ اچھے سلوک سے نہیں رہتا رہتی
				26	0	1	2	برے برتاؤ کے بعد شرمندگی محسوس نہیں کرتا کرتی
				27	0	1	2	جلدی حسد کرتا کرتی ہے
				28	0	1	2	خاندان کے ساتھ برا برتاؤ رکھتا رکھتی ہے
				29	0	1	2	کچھ خاص جانوروں، حالات یا جگہوں سے خوفزدہ رہتا رہتی ہے (وضاحت کیجئے)
				30	0	1	2	جنس مخالف کے ساتھ تعلقات اچھے نہیں ہیں
				31	0	1	2	ڈرتا ڈرتی ہے کہ کچھ براسوچے گا یا کرے گا یا کرے گی۔
				32	0	1	2	محسوس کرتا کرتی ہے کہ اسے بہتر نہیں ہونا چاہیے
				33	0	1	2	محسوس یا شکایت کرتا کرتی ہے کہ کوئی اسے محبت نہیں کرتا کرتی
				34	0	1	2	محسوس کرتا کرتی ہے کہ دوسرے اس پر جھوٹے کیلئے تیار ہیں
				35	0	1	2	خود کو بے وقعت یا کمتر سمجھتا سمجھتی ہے
				36	0	1	2	بہت زیادہ ڈنکی مارتا رہتی ہے۔ عادات کا شکار
				37	0	1	2	بہت زیادہ لڑائی جھڑپوں میں پڑتا پڑتی ہے
				38	0	1	2	اسکے پردیسوں سے تعلقات برے ہیں
				39	0	1	2	ایسے لوگوں کے ساتھ گھومتا پھرتا رہتی ہے جو مشکلات کو دعوت دیتے ہیں
				40	0	1	2	ایسی آوازیں یا باتیں سنتا سنتی ہے جو لوگوں کے خیال میں موجود نہیں (وضاحت کیجئے)
				41	0	1	2	بے اختیار ہو کر سوچے کچھ بے خبر کام کرتا کرتی ہے
				42	0	1	2	دوسروں کی بجائے اکیلے رہتا پھرتا کرتا کرتی ہے
				43	0	1	2	جموت بولتا رہتی ہے یا دھوکا دیتا رہتی ہے
				44	0	1	2	ذمہ داروں سے مطلب رہے بس محسوس کرتا کرتی ہے
				45	0	1	2	پریشانی یا ذہنی تازہ کاری کرتا کرتی ہے
				46	0	1	2	بے ساختہ یا بے جھج جھج حرکات کرتا کرتی ہے (مثلاً ٹھٹھوں کو پھیرنا) (وضاحت کریں)
				47	0	1	2	خود پر کم اعتماد رہتا رہتی ہے
				48	0	1	2	دوسرے سے پسند نہیں کرتے
				49	0	1	2	کچھ چیزیں دوسروں سے بہتر کر سکتا رہتی ہے
				50	0	1	2	بہت زیادہ خوف یا تشویش کا شکار ہے
				51	0	1	2	محسوس کرتا کرتی ہے کہ سرگرم رہا ہے یا چکا رہا ہے
				52	0	1	2	بہت احساس جرم رکھتا رہتی ہے
				53	0	1	2	مستقبل کی منصوبہ بندی میں مشکلات سے دوچار ہے
				54	0	1	2	کسی خاص وجہ کے بغیر حکمت محسوس کرتا کرتی ہے
				55	0	1	2	بے مدد خوئی اور اداسی کے درمیان مزاج بدلتا رہتا ہے
				56	0	1	2	جسمانی مسائل (بغیر کسی طبی وجہ کے)
				a	0	1	2	دکھنا یا درد (معدہ اور سردی کے علاوہ)
				b	0	1	2	سر درد
				c	0	1	2	حلقی، پیاز محسوس کرتا کرتی ہے
				d	0	1	2	آنکھوں کے مسائل (اگر چشموں سے ٹھیک نہ ہوں) وضاحت کریں
				e	0	1	2	جلدی رگڑ یا دوسرے جلدی مسائل
				f	0	1	2	معدے کا درد
				g	0	1	2	تے مارا یا کئی آنا
				57	0	1	2	لوگوں پر جسمانی طور پر تیزا در ہوتا رہتی ہے
				58	0	1	2	اپنی جلد یا جسم کے دیگر حصوں کو چھتا ہے (وضاحت کریں)
				59	0	1	2	ان چیزوں کو نکل کرنے میں ناکام رہتا رہتی ہے جو اسے کرنی چاہیے
				60	0	1	2	بہت کم چیزیں ہیں جن سے لطف اندوز ہوتا رہتی ہے
				61	0	1	2	کام میں نرمی یا کاروباری
				62	0	1	2	پھوڑا ہے یا اچھا

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0 = درست نہیں 1 = کسی حد تک درست کبھی کبھار درست 2 = بہت حد تک درست اکثر درست

63	0 1 2	اپنے ہم عمروں کی بجائے بڑی عمر کے لوگوں کے ساتھ رہنا ہوتی ہے
64	0 1 2	ترجیحات مقرر کرنے میں ہوااری پیش آتی ہے
65	0 1 2	بات کرنے سے انکار کرتا کرتی ہے
66	0 1 2	بعض حرکات کو بار بار دہراتا یا دہراتی ہے (وضاحت کریں)
67	0 1 2	دوست بنانے یا بنانے رکھنے میں مشکل پیش آتی ہے
68	0 1 2	بہت چینی چلاتا چلاتی ہے
69	0 1 2	رازداری رہتے والا روالی، چیزیں اپنے تک محدود رکھتا رکھتی ہے
70	0 1 2	ایسی چیزیں دیکھتا رکھتی ہے جو اصل میں موجود نہیں ہوتیں (وضاحت کریں)
71	0 1 2	اپنے بارے میں حساس ہے یا آسانی سے شرمندہ ہونے والا روالی ہے
72	0 1 2	اپنے خاندان کیلئے پریشان ہے
73	0 1 2	اپنے خاندان کی ذمہ داریوں کو پورا کرتا کرتی ہے
74	0 1 2	دکھا دیا سخرہ پن کرنے والا روالی
75	0 1 2	بہت زیادہ بزدلی یا شرمیلہ اثر مشلی
76	0 1 2	غیر ذمہ دارانہ رویہ
77	0 1 2	دن اولیارات میں دوسرے لوگوں کی نسبت میں زیادہ سوتا سوتی ہے (وضاحت کریں)
78	0 1 2	ٹھیلے کرنے میں مشکل پیش آتی ہے
79	0 1 2	بولنے بات کرنے میں مسائل (وضاحت کریں)
80	0 1 2	خالی نظروں سے ٹھکی باغھ کر دیکھتا رکھتی ہے
81	0 1 2	تعمولن مزاج جگا روید گزری گزری بدلے
82	0 1 2	چوری کرتا کرتی ہے
83	0 1 2	آسانی سے ہیرت راکتاہٹ کا شکار ہوجاتا رہاتی ہے
84	0 1 2	عجیب و غریب رویہ (وضاحت کریں)
85	0 1 2	عجیب و غریب خیالات (وضاحت کریں)
86	0 1 2	ضدی، پد مزاج یا چڑچڑا
87	0 1 2	موڈیا احساسات میں اچانک بدلاؤ
88	0 1 2	لوگوں کے ساتھ ہونے سے لطف اندوز ہوتا رہتی ہے
89	0 1 2	خطرات نقصان کا اندازہ کئے بغیر چیزوں میں جلد بازی کرتا کرتی ہے
90	0 1 2	بہت زیادہ شراب پیتا پیتی ہے، نشے میں دھت ہے
91	0 1 2	خود کو مارنے کی باتیں کرتا کرتی ہے
92	0 1 2	ایسی چیزیں کرتا کرتی ہے جن سے قانونی مسائل پیدا ہوں (وضاحت کریں)
93	0 1 2	بہت زیادہ بولتا رہتی ہے
94	0 1 2	بہت زیادہ چراتا چراتی ہے
95	0 1 2	غضبیا یا گرم مزاج
96	0 1 2	خود سے کام نہ کرنے والا روالی (ست) چکل کرنے میں کی
97	0 1 2	لوگوں کو تکلیف آزار پہنچانے کی دھمکیاں، پتا رہتی ہے
98	0 1 2	دوسروں کی مدد کرنا پسند کرتا کرتی ہے
99	0 1 2	ایک ہی جگہ پر بہت دیر طہرے رہنے کو پسند کرتا کرتی ہے
100	0 1 2	سوئے میں مشکل پیش آتی ہے
101	0 1 2	جبکہ کوئی بیماری یا چھٹیاں نہ ہوں تب بھی کام سے دور ہتا رہتی ہے
102	0 1 2	کامل، ہست رویا تو اتنی میں کی رکھتا رکھتی ہے
103	0 1 2	ناخوش، بغزوہ یا اداس
104	0 1 2	غیر معمولی طور پر بلند آواز ہے (پرشر)
105	0 1 2	غیر منظم ہے
106	0 1 2	دوسروں سے منصفانہ برتاؤ رکھنے کی کوشش کرتا ہے
107	0 1 2	مخوسں کرتا ہے کہ وہ کامیاب نہیں ہو سکتا کرتی
108	0 1 2	چیزیں لگانے کا رجحان ہے
109	0 1 2	جدت پسند رہتی چیزیں کرنے کو پسند کرتا کرتی ہے
110	0 1 2	انٹھے ٹھیلے کرتا کرتی ہے
111	0 1 2	انگ تھک - دوسروں کے ساتھ ٹھٹھا متا نہیں ہے
112	0 1 2	فکر مند ہوتا رہتی ہے
113	0 1 2	بہت زیادہ کھانا کھاتا کھاتی ہے
114	0 1 2	اپنے واجبات قرضہ ادا کرنے میں یا دوسری مالی ذمہ داریوں کو پورا کرنے میں ناکام ہوتا رہتی ہے
115	0 1 2	بے آرام یا بے چین محسوس کرتا کرتی ہے
116	0 1 2	بہت جلد پریشان ہوتا رہتی ہے
117	0 1 2	چیوسں یا کرٹریٹ کارڈ کے (صحیح طریقے سے) استعمال میں مشکل پیش آتی ہے
118	0 1 2	بہت بے مہر ہے
119	0 1 2	تفصیلی جائزے / وضاحت میں اچھا نہیں ہے
120	0 1 2	بہت تیز گاڑی چلاتا چلاتی ہے
121	0 1 2	مقرر وقت (علاقات) میں دیر کرنے کا رجحان رکھتا رکھتی ہے
122	0 1 2	نوکری پر رہنے میں مشکل پیش آتی ہے
123	0 1 2	یہ بہت خوش مزاج انسان ہے
124	0 1 2	پچھلے 6 مہینوں میں اس نے دن میں کتنی مرتبہ باکو کا استعمال کیا (بشمول بغیر موٹوں والا تمباکو) دن میں _____ مرتبہ
125	0 1 2	پچھلے 6 مہینوں میں کتنے دن شراب دن دھت ہوا رہتی ہے _____ دن
126	0 1 2	پچھلے 6 مہینوں میں اس نے کتنے دن نشیات کا بغیر طبی استعمال کیا (بشمول بھنگ، کوکین اور دوسری نشیات) (شراب اور ٹیکوٹین کے علاوہ) _____ دن

برائے نہرانی اس بات کو یقینی بنائیں کہ آپ نے تمام سوالات کے جوابات دیئے ہیں

Appendix C4

Assessment of DSM IV Personality Disorder: Urdu Version

سوالنامے کے مقاصد

اس سوالنامے کا مقصد شخصیت (Personality) کی خصوصیات (Characteristics) معلوم کرنا ہے، جیسے کہ آپ کے سوچنے، محسوس کرنے اور عمل کرنے کے مختلف طریقے۔

اس سوالنامے میں آپ کی وہ خصوصیات پوچھی جا رہی ہیں جو آپ کے لئے پریشان کن ہیں اور جن کا بدلنا آپ کے لئے ناممکن یا مشکل ہیں، جو کہ آپ میں فکر، پریشانی اور دباؤ پیدا کر رہی ہیں۔ اور جس کی وجہ سے آپ کی زندگی میں مشکلات آرہی ہیں۔

سوالنامے کی ہدایت

اس سوالنامے میں (Personality Characteristic) سے متعلق 94 جملے ہیں اور ہر جملے کے سامنے آپ سے دو سوالات کئے

جا رہے ہیں۔

پہلا سوال: "آپ کس حد تک اپنے بارے میں اس جملے سے متفق ہیں؟"

اس سوال کا مقصد یہ ہے کہ یہ جملہ کس درجہ تک آپ کے بارے میں درست ہے اور آپ کس حد تک اس سے اتفاق کرتے ہیں۔ اس سوال کا جواب "مکمل طور پر غیر متفق" (Score 1) مکمل طور پر متفق (Score 7) میں سے پنے جاسکتے ہیں۔ اگر آپ پہلے سوال سے "مکمل طور پر غیر متفق" (Score 1)، غیر متفق (Score 2) کس حد تک غیر متفق (Score 3) اور "نہ ہی متفق نہ غیر متفق" (Score 4) ہیں تو آپ اگلے جملے کی طرف بڑھیں گے۔ اور اگر آپ پہلے سوال سے "کسی حد تک متفق" (Score 5)، "متفق" (Score 6)، اور "مکمل طور پر متفق" (Score 7) ہیں تو آپ دوسرے سوال کا جواب دیں گے۔

دوسرا سوال: "کیا اس خاصیت نے کبھی آپ کو یا دوسروں کو تکلیف یا پریشانی میں مبتلا کیا ہے؟"

آپ اس سوال کا جواب "کبھی بھی نہیں"، "کسی حد تک" یا "یقیناً" میں سے چن سکتے ہیں۔

ان سوالات کا کوئی درست یا غلط جواب نہیں۔ اس لئے آپ سے درخواست ہے کہ آپ ان سوالات کا جواب اپنی زندگی میں ہونے والے واقعات کے حساب سے دیں۔ اس سوالنامہ کو حل کرنے کے لئے کوئی وقت کی قید نہیں۔ آپ اپنا پورا وقت لیں۔

شکریہ۔

کوائف نامہ

نام: _____ جنس: _____
 عمر: _____ تعلیم: _____
 پیشہ: _____
 خاندانی نظام: مخلوط / مشترکہ
 ازدواجی حیثیت: شادی شدہ / غیر شادی شدہ / طلاق یافتہ / بیوہ
 اس وقت:

- ۱۔ میں پچھلے دو سال سے کوئی نفسیاتی علاج نہیں کروا رہا / رہی ہوں۔
- ۲۔ میں نفسیاتی علاج کروا رہا / رہی ہوں مگر کسی نفسیاتی شعبے یا ہسپتال میں داخل نہیں ہوں۔
- ۳۔ میں نفسیاتی شعبے یا ہسپتال میں داخل ہوں۔

آپ کس حد تک اپنے بارے میں اس جملے سے متفق ہیں؟

1- مکمل طور پر غیر متفق 2- غیر متفق 3- کسی حد تک غیر متفق 4- نہ متفق نہ غیر متفق 5- کسی حد تک متفق 6- متفق 7- مکمل طور پر متفق

کیا اس خاصیت نے آپ کو یاد دوسروں کو تکلیف یا پریشانی میں مبتلا کیا؟
1- کبھی بھی نہیں 2- کسی حد تک 3- یقیناً

1 2 3 4 5 6 7 1 2 3	1- میں ہمیشہ یہ سمجھتا/سمجھتی ہوں کہ دوسرے مجھ سے فائدہ اٹھائیں گے، مجھے تکلیف پہنچائیں گے یا مجھے دھوکا دیں گے۔
1 2 3 4 5 6 7 1 2 3	2- دوسرے لوگوں کی طرح میں قربت یا قریبی تعلقات کی خواہش نہیں رکھتا/رکھتی۔
1 2 3 4 5 6 7 1 2 3	3- میں عام طور پر ہونے والے واقعات یا اتفاقات کی وضاحت اکثر کچھ اس طرح سے کرتا/کرتی ہوں کہ وہ دوسرے لوگوں کو عجیب لگتا ہے۔
1 2 3 4 5 6 7 1 2 3	4- میں بار بار سماجی اقدار، اصول اور قوانین کی خلاف ورزی کرتا/کرتی ہوں اور بار بار ایسے عمل کرتا/کرتی ہوں جو میری گرفتاری کی وجہ بن سکتے ہیں (جیسے لوگوں کی جائیداد کو نقصان پہنچانا، ہڑائی جھگڑے وغیرہ)
1 2 3 4 5 6 7 1 2 3	5- میں ایسا سوچ بھی نہیں سکتا/سکتی کہ کوئی بھی مجھے چھوڑ کے چلا جائے، چاہے اس کے لئے مجھے کچھ بھی کرنا پڑے۔
1 2 3 4 5 6 7 1 2 3	6- اگر مجھے بھرپور توجہ نہ ملے تو مجھے بہت بے قدری اور بے سکونی کا احساس ہوتا ہے اور میں توجہ حاصل کرنے کے لئے کچھ بھی کر سکتا/سکتی ہوں۔
1 2 3 4 5 6 7 1 2 3	7- مجھے حیرت ہوتی ہے کہ دوسرے میرے بارے میں سوچتے ہیں کہ میں خود پسند ہوں، درحقیقت میں ہوں ہی باصلاحیت اور غیر معمولی طور پر دوسروں سے بہتر۔
1 2 3 4 5 6 7 1 2 3	8- چونکہ میں تنقید اور رد کئے جانے سے ڈرتا/ڈرتی ہوں لہذا میں دوران ملازمت یا سکول میں ایسی سرگرمیوں میں حصہ ہی نہیں لیتا/لیتی جس کے دوران میرا واسطہ لوگوں سے پڑے۔
1 2 3 4 5 6 7 1 2 3	9- دوسروں کے مسلسل مشورے اور یقین دہانی کے بغیر مجھے روزمرہ کے فیصلے کرنے میں مشکل درپیش ہوتی ہے۔

آپ کس حد تک اپنے بارے میں اس جملے سے متفق ہیں؟

1- مکمل طور پر غیر متفق 2- غیر متفق 3- کسی حد تک غیر متفق 4- نہ متفق نہ غیر متفق 5- کسی حد تک متفق 6- متفق 7- مکمل طور پر متفق

کیا اس خاصیت نے آپ کو یاد دوسروں کو تکلیف یا پریشانی میں مبتلا کیا؟
1- کبھی بھی نہیں 2- کسی حد تک 3- جتنا

1 2 3 4 5 6 7 1 2 3	10- اس بات کو یقینی بنانے کے لئے کہ صورت حال میرے قابو میں رہے، میں ہمیشہ اپنے دماغ میں چیزوں کی تفصیلات، انکی ترتیب کے بارے میں سوچتا رہتا سوچتی رہتی ہوں اور حالات کو کنٹرول کرنے کے لئے منصوبہ بندی کرنے، سکیم بنانے میں لگا رہتا رہتی ہوں، جس کی وجہ سے وقت ضائع ہوتا ہے اور بہت سے اہم معاملات بھی نظر انداز ہو جاتے ہیں۔
1 2 3 4 5 6 7 1 2 3	11- میں فطرتاً ایک اُداس، غمزہ اور دل برداشتہ انسان ہوں۔
1 2 3 4 5 6 7 1 2 3	12- میں دوسروں کی توقعات پر پورا اُترنے سے انکار کرتا رہتی ہوں میں نے ہمیشہ ان توقعات کی تحمل سے اور بلا واسطہ مزاحمت کی ہے۔
1 2 3 4 5 6 7 1 2 3	13- میں ہر وقت یہی سوچتا رہتا رہتی ہوں کہ "کیا میرے دوست اور کوئی سچے اور قابل اعتبار ہیں یا انکے ارادے مجھے نقصان پہنچانے کے ہیں؟"
1 2 3 4 5 6 7 1 2 3	14- میں تنہائی پسند ہوں اور جب بھی ممکن ہو تنہائی پسند سرگرمیاں ہی منتخب کرتا کرتی ہوں۔
1 2 3 4 5 6 7 1 2 3	15- میرا فوق الفطرت سرگرمیوں پر پختہ یقین ہے۔ مثلاً جاوڈو نا، علم نجوم اور غیب کا علم۔
1 2 3 4 5 6 7 1 2 3	16- دوسروں کو دھوکا دینا، بے ایمانی کرنا یا جھوٹ بولنا میری فطرت ہے۔
1 2 3 4 5 6 7 1 2 3	17- دوسرے لوگوں سے میرے تعلقات بہت گہرے لیکن غیر مستحکم ہوتے ہیں۔ دوسروں کے متعلق میرے خیالات میں بہت جلد اور شدید نوعیت کی تبدیلیاں واقع ہوتی ہیں۔ ایک لمحے مجھے ان سے گہری محبت اور وابستگی ہوتی ہے اور دوسرے ہی لمحے ان سے بددل ہو کر شدید نفرت کرنے لگتا لگتی ہوں۔
1 2 3 4 5 6 7 1 2 3	18- میں عام طور پر لوگوں کا دل جیتنے کے لئے ان کو جنسی ترغیبات سے مائل کرتا کرتی ہوں۔

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کیا اس خاصیت نے آپ کو یاد دوسروں کو تکلیف یا پریشانی میں مبتلا کیا؟
1- کبھی بھی نہیں 2- کسی حد تک 3- یقیناً

1 2 3 4 5 6 7 1 2 3	19- میں اکثر ان تصورات میں کھویا رہتا ہوں کہ میں کامیاب، طاقتور، ذہین، دلکش اور لوگوں کی پسندیدہ شخصیت ہوں۔
1 2 3 4 5 6 7 1 2 3	20- میں اُس وقت تک دوسرے لوگوں سے تعلق قائم کرنے سے اجتناب کرتا کرتی ہوں۔ جب تک مجھے یہ یقین نہ ہو جائے کہ وہ مجھے پسند کرتے ہیں اور بغیر کسی تنقید کے قبول کر لیں گے۔
1 2 3 4 5 6 7 1 2 3	21- بہت سے مواقع پر میں انتظار کرتا کرتی ہوں کہ دوسرے پہل کریں اور ذمہ داری سنبھالیں۔
1 2 3 4 5 6 7 1 2 3	22- میں جو بھی کام شروع کرتا کرتی ہوں اسے مکمل کرنا میرے لئے مشکل ہوتا ہے کیونکہ میں خود سے یہ چاہتا چاہتی ہوں کہ ہر کام بغیر کسی خامی کے مکمل مہارت سے سرانجام پائے۔
1 2 3 4 5 6 7 1 2 3	23- میرے ذہن میں اپنے بارے میں کوئی مثبت خاکہ نہیں۔ مجھے لگتا ہے کہ میں بے کار اور غیر موزوں ہوں اور میں اپنے آپ کو حقیر تصور کرتا کرتی ہوں۔
1 2 3 4 5 6 7 1 2 3	24- اکثر اوقات مجھے شکایت رہتی ہے کہ مجھے کوئی نہیں سمجھتا اور بحیثیت ایک انسان میری عزت نہیں کرتا۔
1 2 3 4 5 6 7 1 2 3	25- میں شاز و نادار رہی دوسروں پر اعتبار کرتا کرتی ہوں کیونکہ راز کو کسی کے خلاف استعمال کرنا انکے لئے عام سی بات ہے۔
1 2 3 4 5 6 7 1 2 3	26- میں کسی دوسرے کے ساتھ جنسی تعلقات قائم کرنے میں دلچسپی نہیں لیتا لیتی۔
1 2 3 4 5 6 7 1 2 3	27- میں کبھی کبھی ایسی چیزوں کو محسوس کرتا کرتی ہوں جو دوسروں کے لئے عجیب اور ناقابل تصور ہیں۔ (جیسے کہ ایسی طاقتوں یا لوگوں کی موجودگی کو محسوس کرنا جو حقیقت میں نہیں ہیں)
1 2 3 4 5 6 7 1 2 3	28- میں بغیر سوچے سمجھے اور نتائج کو مد نظر رکھے بغیر کام کر گزرتا گزرتی ہوں مثلاً میں ایک لمحے میں ہی فیصلہ کر لیتا لیتی ہوں کہ مجھے ملازمت، گھر یا ساتھی تبدیل کرنا ہے۔

آپ کس حد تک اپنے بارے میں اس جملے سے متفق ہیں؟

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کیا اس خاصیت نے آپ کو یاد دوسروں کو تکلیف یا پریشانی میں مبتلا کیا؟
1- کبھی بھی نہیں 2- کسی حد تک 3- یقیناً

1 2 3 4 5 6 7 1 2 3	29- میں ہمیشہ غیر یقینی صورتحال کا شکار رہتا رہتی ہوں کہ میں کون ہوں، کیا ہوں اور میری زندگی میں کیا چیز اہم ہے؟ یہ کیفیت میرے اپنے بارے میں، لوگوں کے متعلق، دنیا اور مستقبل سے متعلق میرے احساسات کو متاثر کرتی ہے۔
1 2 3 4 5 6 7 1 2 3	30- میرے جذبات بہت غیر مستقل ہیں اور اکثر غیر فطری اور بناوٹی لگتے ہیں۔
1 2 3 4 5 6 7 1 2 3	31- چونکہ میں بہت مخصوص اور منفرد ہوں اس لئے صرف خاص لوگ ہی مجھے سمجھ سکتے ہیں میں صرف کامیاب لوگوں کے ساتھ گلہنا ملنا چاہتا چاہتی ہوں۔
1 2 3 4 5 6 7 1 2 3	32- بہت قریبی تعلقات میں بھی اپنے جذبات اور خیالات کے اظہار سے خوفزدہ رہتا رہتی ہوں۔
1 2 3 4 5 6 7 1 2 3	33- مجھے لوگوں کے درمیان اختلاف رائے کا اظہار کرنا مشکل لگتا ہے۔ چاہے میں مکمل طور پر کسی سے غیر متفق ہوں میں اپنی رائے کا اظہار نہیں کر سکتا سکتی اس لئے میں ہاں میں ہاں ملا دیتا دیتی ہوں۔
1 2 3 4 5 6 7 1 2 3	34- کام کا ج اور ذمہ داریوں میں اتنا وقت صرف ہو جاتا ہے کہ دوستوں یا دیگر سرگرمیوں کے لئے فرصت نہیں ملتی۔
1 2 3 4 5 6 7 1 2 3	35- میری اپنے بارے میں ہمیشہ منفی رائے ہوتی ہے میں ہمیشہ خود پر تنقید کرتا کرتی ہوں خود کو حقیر سمجھتا سمجھتی ہوں اور اپنی نئی کرتا کرتی ہوں۔
1 2 3 4 5 6 7 1 2 3	36- میں فطرتاً بہت ضدی اور جھگڑالو ہوں۔
1 2 3 4 5 6 7 1 2 3	37- دوسرے لوگوں کے الفاظ اور عمل بظاہر دوستانہ نظر آتے ہیں لیکن درحقیقت ان کا مقصد میری تذلیل کرنا یا مجھے دھمکانہ ہوتا ہے۔

آپ کس حد تک اپنے بارے میں اس جملے سے متفق ہیں؟

1- مکمل طور پر غیر متفق 2- غیر متفق 3- کسی حد تک غیر متفق 4- نہ متفق نہ غیر متفق 5- کسی حد تک متفق 6- متفق 7- مکمل طور پر متفق

کیا اس خاصیت نے آپ کو یاد دوسروں کو تکلیف یا پریشانی میں مبتلا کیا؟
1- کبھی بھی نہیں 2- کسی حد تک 3- یقیناً

1 2 3 4 5 6 7 1 2 3	38- میں بہت کم ہی کسی سرگرمی سے لطف اندوز ہوتا رہتی ہوں۔
1 2 3 4 5 6 7 1 2 3	39- میرا سوچنے اور بات کرنے کا انداز دوسرے لوگوں سے مختلف ہے جو مجھے نہیں سمجھ سکتے۔
1 2 3 4 5 6 7 1 2 3	40- میں بہت جلد چڑھتا رہتی ہوں اور پھر غصے میں آجاتا رہتی ہوں میں متعدد بار لڑائی جھگڑوں میں شامل رہا رہی ہوں اور لوگوں کو مارا پیٹا ہے۔
1 2 3 4 5 6 7 1 2 3	41- میں ایک جلد باز انسان ہوں: میں بغیر سوچے سمجھے کوئی بھی کام چاکنک کر لیتا رہتی ہوں جس سے مجھے مشکلات کا سامنا کرنا پڑتا ہے۔ میں نے اس نوعیت کے کئی کام کئے ہیں۔ جیسے کہ ☆ غیر ذمہ داری سے پیسوں کا بے جا استعمال ☆ جہنی بے راہروی ☆ شراب، منشیات اور ادویات کا بے جا استعمال ☆ جوا کھیلنا ☆ لاپرواہی سے ڈرائیونگ اور ☆ بہت زیادہ کھانا۔
1 2 3 4 5 6 7 1 2 3	42- میں مسلسل اپنی خوبصورتی کو لوگوں کو متوجہ کرنے کے لئے استعمال کرتا رہتی ہوں۔
1 2 3 4 5 6 7 1 2 3	43- بہتر محسوس کرنے کے لئے مجھے دوسروں کی نسبت زیادہ تعریف و ستائش اور توجہ کی ضرورت ہے۔
1 2 3 4 5 6 7 1 2 3	44- میں بہت شرمیلیا اور شرمیلی ہوں اور سماجی صورت حال میں تنقید یا رد کئے جانے کے خوف سے خود کو غیر محفوظ محسوس کرتا رہتی ہوں۔
1 2 3 4 5 6 7 1 2 3	45- میرے لئے کچھ بھی اکیلے کرنا مشکل ہوتا ہے کیونکہ خود اعتمادی کی کمی کی وجہ سے مجھے لگتا ہے کہ مجھے مدد کی ضرورت ہے۔

آپ کس حد تک اپنے بارے میں اس جملے سے متفق ہیں؟

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1- کبھی بھی نہیں 2- کسی حد تک 3- جھینٹا

1 2 3 4 5 6 7 1 2 3	46- دوسروں کی نسبت میں بہت باضمیر محتاط اور ضدی ہوں خاص طور پر جہاں بات اصولوں کی ہو۔
1 2 3 4 5 6 7 1 2 3	47- فطرتاً میں ایک پریشان حال انسان ہوں۔
1 2 3 4 5 6 7 1 2 3	48- باختیار لوگوں کے لئے میں محض تنقید یا حقارت کا اظہار کر سکتا/رکتی ہوں۔
1 2 3 4 5 6 7 1 2 3	49- شدید ناراضگی میرے اندر جڑ پکڑ چکی ہے۔ میں اُن لوگوں کو کبھی معاف نہیں کروں گا/رگی جو مجھے دکھ پہنچاتے ہیں اور میری تدبیر لیتے ہیں۔
1 2 3 4 5 6 7 1 2 3	50- قریبی رشتہ داروں کے علاوہ میرا کوئی دوست یا رازدار نہیں ہے۔
1 2 3 4 5 6 7 1 2 3	51- میں دوسروں کو شک کی نگاہ سے دیکھتا/رکھتی ہوں کیونکہ وہ میرا بھلا نہیں چاہتے ہیں۔
1 2 3 4 5 6 7 1 2 3	52- میں عام طور پر ایسی پرخطر سرگرمیوں میں شامل رہتا/رہتی ہوں جس سے مجھے یا کسی اور کو جسمانی نقصان پہنچ سکتا ہے۔
1 2 3 4 5 6 7 1 2 3	53- میں نے کئی بار اپنی جان لینے کی کوشش کی ہے یا اسے خطرے میں ڈالا ہے۔
1 2 3 4 5 6 7 1 2 3	54- میں عام طور پر جذباتی بیانات دیتا/رہتی ہوں جن کو کسی مثال سے واضح نہیں کر سکتا/رکتی۔
1 2 3 4 5 6 7 1 2 3	55- مجھے اس بات کا یقین ہے کہ میں برتر اور خاص سلوک کار کی حقدار ہوں۔
1 2 3 4 5 6 7 1 2 3	56- نئے لوگوں سے ملتے وقت میں کوشش کے باوجود بھی آرام دہ محسوس نہیں کرتا/رکتی۔
1 2 3 4 5 6 7 1 2 3	57- دوسروں کی حمایت اور توجہ حاصل کرنے کے لئے میں اکثر ذلت آمیز اور ناخوشگوار حرکات بھی کر گزرتا/رگزرتی ہوں۔

آپ کس حد تک اپنے بارے میں اس جملے سے متفق ہیں؟

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1- کبھی بھی نہیں 2- کسی حد تک 3- یقیناً

1 2 3 4 5 6 7 1 2 3	58- میرے لئے استعمال شدہ یا ناکارہ اشیاء کو پھینک دینا ممکن نہیں، چاہے ان چیزوں کی میرے لئے کوئی جذباتی حیثیت نہ ہو۔
1 2 3 4 5 6 7 1 2 3	59- میں دوسروں میں صرف منفی پہلو ہی دیکھتا رہتا ہوں۔
1 2 3 4 5 6 7 1 2 3	60- مجھے ان لوگوں سے نفرت اور حسد ہوتی ہے جو مجھ سے زیادہ خوش قسمت ہیں۔
1 2 3 4 5 6 7 1 2 3	61- اگر مجھے ایسا لگے کہ میری سادھ کو نقصان پہنچایا جا رہا ہے تو میں فوراً غصے میں آ کر جوابی حملہ کرتا کرتی ہوں۔
1 2 3 4 5 6 7 1 2 3	62- مجھ پر کسی دوسرے کی مثبت یا منفی رائے کا کوئی اثر نہیں ہوتا۔
1 2 3 4 5 6 7 1 2 3	63- دوسروں کے ساتھ میرا جذباتی تعلق عام طور پر غلط ہوتا ہے مثلاً انہیں میرا اظہار کا طریقہ نامناسب اور عجیب لگتا ہے۔
1 2 3 4 5 6 7 1 2 3	64- میں اپنے فرائض اور ذمہ داریاں پوری نہیں کرتا کرتی (چاہے وہ معاشی، پیشہ وارانہ یا خاندانی تعلقات سے متعلق ہوں)
1 2 3 4 5 6 7 1 2 3	65- میں نے کئی بار خود کو تکلیف پہنچائی ہے یا جان بوجھ کر خود کو زخمی کیا ہے۔
1 2 3 4 5 6 7 1 2 3	66- میں عموماً جذبات کے ساتھ بہہ جاتا جاتی ہوں۔ لوگ عام طور پر میرے جذبات پر شک اس لئے کرتے ہیں کیونکہ میں ان کا اظہار شدت سے ڈرامائی انداز میں کرتا کرتی ہوں۔
1 2 3 4 5 6 7 1 2 3	67- مجھے اپنے مقاصد حاصل کرنے کے لئے دوسروں کو استعمال کرنا بالکل صحیح لگتا ہے۔
1 2 3 4 5 6 7 1 2 3	68- میں سماجی صورت حال میں خود کو ناموزوں، غیر پرکشش اور کمتر سمجھتا سمجھتی ہوں۔

آپ کس حد تک اپنے بارے میں اس نمل سے متفق ہیں؟

1- مکمل طور پر غیر متفق 2- غیر متفق 3- کسی حد تک غیر متفق 4- نہ متفق نہ غیر متفق 5- کسی حد تک متفق 6- متفق 7- مکمل طور پر متفق

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1- کبھی بھی نہیں 2- کسی حد تک 3- یقیناً

1 2 3 4 5 6 7 1 2 3	69- تنہائی میں اپنے آپ کو میں بے یار و مددگار محسوس کرتا کرتی ہوں، مجھے یوں محسوس ہوتا ہے کہ میں اپنا خیال بھی نہیں رکھ سکتا/سکتی۔
1 2 3 4 5 6 7 1 2 3	70- میرے لئے دوسروں کے ساتھ کام کرنا مشکل ہے کیونکہ میرے لئے ایسی صورت حال ناقابل برداشت ہے جب لوگ میرے انداز کو پورے طریقے سے نہ اپنائیں۔
1 2 3 4 5 6 7 1 2 3	71- میں ایک بالکل مایوس انسان ہوں۔
1 2 3 4 5 6 7 1 2 3	72- میری قسمت ہمیشہ خراب رہی ہے زندگی میں کبھی خوش قسمتی کا سامنا نہیں ہوا۔
1 2 3 4 5 6 7 1 2 3	73- اکثر اوقات مجھے یہ شگ ہوتا ہے کہ میرا ساتھی مجھ سے وفادار نہیں ہے۔
1 2 3 4 5 6 7 1 2 3	74- میں اُن لوگوں میں سے ہوں جو بہت کم جذبات محسوس کرتے ہیں جیسے کہ میں انتہائی خوشی اور غصے کو محسوس نہیں کرتا کرتی۔
1 2 3 4 5 6 7 1 2 3	75- میرے تعلقات دوسروں سے خاصے خراب ہیں، وہ محسوس کرتے ہیں کہ میرا رویہ اور ظاہری شکل و صورت یک دم عجیب و غریب اور غیر معمولی ہو جاتی ہے۔
1 2 3 4 5 6 7 1 2 3	76- کچھ غلط کرنے کے بعد مجھے کوئی خاص شرمندگی یا ندامت کا احساس نہیں ہوتا۔
1 2 3 4 5 6 7 1 2 3	77- میرا مزاج اور کیفیت بہت جلد تبدیل ہو جاتا ہے۔ ایک لمحے میں بہت نارمل ہوتا رہتی ہوں اور اگلے ہی لمحے میں غمزہ، غصیلا، پریشان اور بے چین محسوس کرتا کرتی ہوں۔
1 2 3 4 5 6 7 1 2 3	78- میں بہت جلد قائل ہو جاتا رہتی ہوں میرے احساسات اور خیالات لوگوں سے اور حالات سے آسانی سے متاثر ہو جاتے ہیں۔
1 2 3 4 5 6 7 1 2 3	79- مجھے اس بات سے الجھن ہوتی ہے کہ میں دوسروں کی ضروریات یا احساسات میں دلچسپی لوں اور سمجھوں۔

آپ کس حد تک اپنے بارے میں اس جملے سے متفق ہیں؟

- 1- مکمل طور پر غیر متفق 2- غیر متفق 3- کسی حد تک غیر متفق 4- نہ متفق نہ غیر متفق 5- کسی حد تک متفق 6- متفق 7- مکمل طور پر متفق

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1- کبھی بھی نہیں 2- کسی حد تک 3- یقیناً

1 2 3 4 5 6 7 1 2 3	80- میں نئے کام اور صورتحال سے جس حد تک ممکن ہوا جتناب کرتا کرتی ہوں تاکہ ان کے ساتھ آنے والے مسائل اور پریشانی سے بچا جاسکے۔
1 2 3 4 5 6 7 1 2 3	81- جیسے ہی کوئی تعلق ختم ہوتا ہے تو میں فوراً ہی کسی شخص کی تلاش میں لگ جاتا جاتی ہوں جو میرا خیال رکھ سکے اور مجھے سہارا دے سکے۔
1 2 3 4 5 6 7 1 2 3	82- میرے لئے رقم خرچ کرنا مشکل ہوتا ہے کیونکہ میں سمجھتی رہتی ہوں کہ اسے بڑے وقت کے لئے سنبھال کے رکھنا چاہیے۔
1 2 3 4 5 6 7 1 2 3	83- ہمیشہ قصور وار اور ندامت محسوس کرنا میری فطرت ہے۔
1 2 3 4 5 6 7 1 2 3	84- دوسروں کی جانب میرا رویہ عموماً مخالفت سے معذرت میں تبدیل ہوتا رہتا ہے۔
1 2 3 4 5 6 7 1 2 3	85- دوسروں کی موجودگی مجھے محتاط، بے چین اور بے آرام کر دیتی ہے۔
1 2 3 4 5 6 7 1 2 3	86- 15 سال کی عمر سے پہلے میں حقیقت میں ایک تنگ کرنے والا بچہ/بچی تھی۔ دوسرے لوگوں اور جانوروں کو نقصان پہنچاتا رہتی تھی، چیزوں کو جلانا، انہیں تباہ کرنا، گھر سے بھاگنا، جھوٹ بولنا، چوری کرنا اور اصولوں کو مسلسل توڑتا توڑتی تھی۔
1 2 3 4 5 6 7 1 2 3	87- مجھے اکثر خالی پن کا احساس ہوتا ہے۔
1 2 3 4 5 6 7 1 2 3	88- میری ایک خامی یہ ہے کہ میں بہت جلد لوگوں کے ساتھ بہت قریبی تعلقات استوار کر لیتا رہتی ہوں۔
1 2 3 4 5 6 7 1 2 3	89- ایک طرف لوگ میری صلاحیتوں اور کامیابیوں سے حسد کرتے ہیں اور دوسری طرف یہ ان انصافی ہے کہ بہت سے لوگ مجھ سے کم صلاحیتوں کے باوجود مجھ سے زیادہ کامیاب ہیں۔
1 2 3 4 5 6 7 1 2 3	90- یہ خوف میرا پیچھا کرتا رہتا ہے کہ میں پیچھے رہ جاؤں گا رگی اور اکیلے میں ایسی چیزوں اور حالات کا سامنا کروں گا رگی جو مجھے پریشان کرتی ہیں۔

آپ کس حد تک اپنے بارے میں اس جملے سے متفق ہیں؟

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1- کبھی بھی نہیں 2- کسی حد تک 3- یقیناً

1 2 3 4	5 6 7	1 2 3	91- کسی قسم کی تبدیلی کو قبول کرنا میرے لئے بہت مشکل ہے کیونکہ میں روایتی طریقوں کے مطابق سوچتا اور عمل کرتا کرتی ہوں۔
1 2 3 4	5 6 7	1 2 3	92- شدید غصہ میری شخصیت کا حصہ ہے معمولی سی بات پر مجھے اتنا غصہ آتا ہے کہ میرا خود پر قابو نہیں رہتا۔
1 2 3 4	5 6 7	1 2 3	93- لوگوں کی فضول حرکات اور بدانتظامی میری برداشت کا امتحان ہوتے ہیں۔
1 2 3 4	5 6 7	1 2 3	94- جب میں شدید اضطراب کا شکار ہوتا رہتی ہوں تو میرا خود پر سے کنٹرول ختم ہو جاتا ہے اور دوسروں پر شک کرتا کرتی ہوں۔

Appendix D

Item-total Correlations

Table D1

Item-total Correlation of ASR Eight Syndrome Scales with Internalizing, Externalizing, & Total Problem Score among Clinical (N = 408) and Non-Clinical Sample (N = 487)

Items	Clinical			Items	Non-Clinical		
	Anxious Depressed	Internalizing	Total Problem		Anxious Depressed	Internalizing	Total Problem
S12	.64**	.56**	.49**	S12	.65**	.59**	.55**
S13	.66**	.58**	.52**	S13	.69**	.65**	.60**
S14	.61**	.59**	.48**	S14	.63**	.57**	.51**
S22	.51**	.45**	.37**	S22	.52**	.47**	.44**
S31	.60**	.55**	.55**	S31	.52**	.51**	.49**
S33	.61**	.58**	.56**	S33	.65**	.59**	.55**
S34	.50**	.45**	.50**	S34	.58**	.55**	.51**
S35	.61**	.57**	.52**	S35	.64**	.58**	.53**
S45	.58**	.54**	.47**	S45	.67**	.65**	.56**
S47	.42**	.41**	.29**	S47	.53**	.49**	.47**
S50	.72**	.72**	.61**	S50	.63**	.61**	.55**
S52	.42**	.36**	.28**	S52	.46**	.43**	.37**
S71	.39**	.31**	.21**	S71	.44**	.39**	.34**
S91	.42**	.44**	.45**	S91	.39**	.40**	.49**
S103	.68**	.67**	.62**	S103	.68**	.66**	.62**
S107	.73**	.71**	.68**	S107	.59**	.54**	.57**
S112	.51**	.46**	.36**	S112	.54**	.51**	.43**
S113	.34**	.31**	.36**	S113	.44**	.43**	.45**
	Withdrawn	Internalizing	Total Problem		Withdrawn	Internalizing	Total Problem
S25	.65**	.64**	.66**	S25	.48**	.38**	.45**
S30	.32**	.19**	.27**	S30	.4**	.38**	.36**
S42	.62**	.56**	.47**	S42	.64**	.51**	.46**
S48	.56**	.45**	.45**	S48	.59**	.52**	.50**
S60	.58**	.60**	.53**	S60	.58**	.52**	.47**
S65	.64**	.55**	.53**	S65	.58**	.51**	.53**
S67	.66**	.60**	.54**	S67	.61**	.51**	.49**
S69	.41**	.30**	.26**	S69	.47**	.32**	.28**
S111	.65**	.58**	.50**	S111	.62**	.53**	.50**
	Somatic Complaints	Internalizing	Total Problem		Somatic Complaints	Internalizing	Total Problem
S51	.60**	.67**	.59**	S51	.67**	.60**	.52**
S54	.55**	.57**	.49**	S54	.63**	.59**	.52**
S56a	.62**	.52**	.39**	S56a	.66**	.47**	.41**
S56b	.60**	.56**	.42**	S56b	.57**	.47**	.37**
S56c	.66**	.48**	.33**	S56c	.63**	.45**	.41**

S56d	.32**	.18**	.19**	S56d	.52**	.37**	.37**
S56e	.43**	.27**	.25**	S56e	.46**	.31**	.33**
S56f	.63**	.45**	.34**	S56f	.61**	.40**	.36**
Items	Clinical			Items	Non-Clinical		
	Anxious Depressed	Internalizing	Total Problem		Anxious Depressed	Internalizing	Total Problem
S56g	.72**	.53**	.44**	S56g	.60**	.42**	.39**
S56h	.66**	.54**	.43**	S56h	.62**	.54**	.50**
S56i	.61**	.55**	.51**	S56i	.66**	.50**	.45**
S100	.34**	.27**	.17**	S100	.44**	.39**	.44**
	Thought Problem		Total Problem		Thought Problem		Total Problem
S9	.49**		.32**	S9	.51**		.33**
S18	.39**		.43**	S18	.51**		.41**
S36	.41**		.48**	S36	.60**		.52**
S40	.48**		.19**	S40	.59**		.41**
S46	.45**		.29**	S46	.52**		.38**
S63	.166**		.19**	S63	.46**		.37**
S66	.43**		.12*	S66	.67**		.44**
S70	.48**		.12*	S70	.49**		.32**
S84	.63**		.30**	S84	.64**		.38**
S85	.63**		.28**	S85	.65**		.37**
	Attention Problem		Total Problem		Attention Problem		Total Problem
S1	.38**		.24**	S1	.41**		.25**
S8	.62**		.55**	S8	.46**		.42**
S11	.66**		.56**	S11	.54**		.51**
S17	.45**		.45**	S17	.57**		.47**
S53	.71**		.60**	S53	.58**		.51**
S59	.66**		.53**	S59	.59**		.52**
S61	.61**		.51**	S61	.53**		.49**
S64	.70**		.64**	S64	.59**		.52**
S78	.62**		.48**	S78	.61**		.52**
S101	.60**		.56**	S101	.51**		.46**
S102	.66**		.58**	S102	.56**		.48**
S105	.51**		.55**	S105	.52**		.47**
S108	.57**		.54**	S108	.33**		.38**
S119	.64**		.55**	S119	.53**		.50**
S121	.37**		.42**	S121	.43**		.39**
	Aggressive Behavior	Externalizing	Total Problem		Aggressive Behavior	Externalizing	Total Problem
S3	.55**	.37**	.42**	S3	.41**	.10*	.28**
S5	.53**	.24**	.41**	S5	.46**	.22**	.44**
S16	.56**	.34**	.50**	S16	.55**	.26**	.49**
S28	.52**	.28**	.55**	S28	.52**	.23**	.52**
S37	.62**	.52**	.53**	S37	.47**	.24**	.42**
S55	.52**	.16**	.45**	S55	.49**	.15**	.49**

S57	.58**	.46**	.47**	S57	.45**	.22**	.45**
S68	.64**	.45**	.54**	S68	.56**	.24**	.45**
S81	.57**	.32**	.55**	S81	.52**	.14**	.47**
S86	.54**	.16**	.49**	S86	.65**	.29**	.56**
Clinical				Non-Clinical			
Items	Anxious Depressed	Internalizing	Total Problem	Items	Anxious Depressed	Internalizing	Total Problem
S87	.53**	.22**	.55**	S87	.65**	.29**	.55**
S95	.55**	.19**	.50**	S95	.58**	.29**	.42**
S97	.60**	.51**	.50**	S97	.46**	.28**	.44**
S116	.51**	.16**	.57**	S116	.56**	.23**	.56**
S118	.60**	.46**	.52**	S118	.51**	.22**	.42**
Rule Breaking				Externalizing			
S6	.59**	.41**	.24**	S6	.32**	.11*	.23**
S20	.58**	.39**	.57**	S20	.54**	.24**	.40**
S23	.66**	.48**	.54**	S23	.56**	.22**	.43**
S26	.57**	.40**	.40**	S26	.43**	.15**	.29**
S39	.63**	.46**	.38**	S39	.48**	.16**	.37**
S41	.54**	.38**	.50**	S41	.52**	.27**	.50**
S43	.61**	.43**	.35**	S43	.58**	.23**	.46**
S76	.44**	.32**	.40**	S76	.56**	.18**	.44**
S82	.60**	.46**	.36**	S82	.66**	.27**	.49**
S90	.60**	.43**	.28**	S90	.52**	.18**	.37**
S92	.55**	.36**	.28**	S92	.51**	.19**	.41**
S114	.56**	.45**	.47**	S114	.58**	.25**	.48**
S117	.59**	.39**	.46**	S117	.55**	.28**	.50**
S122	.61**	.46**	.46**	S122	.47**	.21**	.37**
Intrusive Behavior				Externalizing			
S7	.73**	.51**	.40**	S7	.46**	.22**	.32**
S19	.38**	.22**	.43**	S19	.56**	.28**	.44**
S74	.63**	.35**	.29**	S74	.57**	.20**	.41**
S93	.64**	.28**	.21**	S93	.61**	.16**	.19**
S94	.71**	.49**	.50**	S94	.64**	.30**	.43**
S104	.66**	.45**	.42**	S104	.60**	.25**	.42**

* $p < .05$. ** $p < .01$.

Table D2

Item-total Correlation of ABCL Eight Syndrome Scales with Internalizing, Externalizing, & Total Problem Score among Clinical (N = 408) & Non-Clinical Sample (N = 487)

Clinical				Non-Clinical			
Items	Anxious Depressed	Internalizing	Total Problem	Items	Anxious Depressed	Internalizing	Total Problem
C12	.65**	.60**	.50**	C12	.64**	.58**	.52**
C14	.59**	.56**	.44**	C14	.62**	.55**	.50**
C31	.54**	.51**	.49**	C31	.50**	.46**	.45**
C33	.68**	.63**	.59**	C33	.62**	.57**	.54**
C34	.61**	.57**	.57**	C34	.65**	.60**	.59**
C35	.66**	.61**	.54**	C35	.65**	.58**	.52**
C45	.59**	.56**	.44**	C45	.65**	.64**	.54**
C47	.53**	.47**	.33**	C47	.48**	.49**	.47**
C50	.68**	.69**	.55**	C50	.68**	.66**	.64**
C52	.44**	.35**	.15**	C52	.38**	.32**	.25**
C71	.43**	.33**	.15**	C71	.48**	.43**	.35**
C103	.65**	.63**	.54**	C103	.62**	.60**	.58**
C107	.70**	.68**	.59**	C107	.53**	.47**	.49**
C112	.44**	.40**	.25**	C112	.52**	.48**	.40**
Withdrawn				Withdrawn			
	Anxious Depressed	Internalizing	Total Problem		Anxious Depressed	Internalizing	Total Problem
C25	.65**	.57**	.60**	C25	.50**	.45**	.50**
C30	.33**	.12*	.27**	C30	.54**	.44**	.44**
C42	.65**	.64**	.51**	C42	.68**	.53**	.49**
C48	.53**	.41**	.50**	C48	.57**	.46**	.49**
C60	.55**	.62**	.54**	C60	.54**	.45**	.43**
C65	.57**	.44**	.41**	C65	.62**	.52**	.49**
C67	.64**	.59**	.50**	C67	.60**	.49**	.43**
C69	.43**	.30**	.24**	C69	.45**	.30**	.20**
C111	.54**	.53**	.46**	C111	.59**	.464**	.44**
Somatic Complaints				Somatic Complaints			
	Anxious Depressed	Internalizing	Total Problem		Anxious Depressed	Internalizing	Total Problem
C51	.50**	.60**	.48**	C51	.63**	.61**	.57**
C54	.46**	.48**	.41**	C54	.57**	.57**	.51**
C56a	.61**	.42**	.24**	C56a	.70**	.52**	.45**
C56b	.62**	.47**	.30**	C56b	.63**	.46**	.39**
C56c	.69**	.48**	.30**	C56c	.69**	.52**	.49**
C56d	.29**	.12*	.12*	C56d	.58**	.37**	.33**
C56e	.40**	.17**	.10*	C56e	.54**	.36**	.37**
C56f	.70**	.47**	.29**	C56f	.65**	.45**	.43**
C56g	.73**	.54**	.37**	C56g	.63**	.47**	.42**
Thought Problem				Thought Problem			
	Anxious Depressed	Internalizing	Total Problem		Anxious Depressed	Internalizing	Total Problem
C9	.53**		.31**	C9	.51**		.35**
C18	.49**		.45**	C18	.56**		.48**

Items	Non-Clinical			Items	Non-Clinical		
	Anxious Depressed	Internalizing	Total Problem		Anxious Depressed	Internalizing	Total Problem
C40	.49**		.17**	C40	.62**		.41**
C66	.38**		.21**	C66	.63**		.45**
C70	.46**		.11*	C70	.61**		.38**
C80	.43**		.46**	C80	.61**		.38**
C84	.59**		.30**	C84	.69**		.46**
C85	.60**		.24**	C85	.67**		.40**
C91	.56**		.46**	C91	.71**		.58**
	Attention Problem		Total Problem		Attention Problem		Total Problem
C1	.37**		.25**	C1	.40**		.22**
C8	.53**		.47**	C8	.47**		.43**
C11	.63**		.55**	C11	.54**		.51**
C13	.56**		.43**	C13	.58**		.60**
C17	.47**		.42**	C17	.56**		.51**
C53	.66**		.55**	C53	.49**		.42**
C59	.63**		.52**	C59	.59**		.54**
C61	.62**		.53**	C61	.53**		.52**
C64	.64**		.59**	C64	.59**		.49**
C78	.53**		.38**	C78	.60**		.53**
C96	.40**		.37**	C96	.54**		.45**
C101	.57**		.54**	C101	.45**		.44**
C102	.61**		.48**	C102	.57**		.47**
C105	.49**		.48**	C105	.50**		.43**
C108	.49**		.50**	C108	.53**		.47**
C119	.59**		.49**	C119	.56**		.51**
C121	.36**		.40**	C121	.40**		.37**
	Aggressive Behavior	Externalizing	Total Problem		Aggressive Behavior	Externalizing	Total Problem
C3	.61**	.53**	.47**	C3	.40**	.31**	.23**
C5	.58**	.47**	.49**	C5	.47**	.44**	.42**
C16	.61**	.65**	.47**	C16	.49**	.54**	.48**
C28	.45**	.34**	.39**	C28	.34**	.32**	.30**
C37	.63**	.67**	.47**	C37	.48**	.48**	.40**
C55	.48**	.32**	.46**	C55	.50**	.42**	.47**
C57	.58**	.62**	.45**	C57	.43**	.48**	.46**
C68	.63**	.64**	.51**	C68	.56**	.54**	.49**
C81	.51**	.44**	.55**	C81	.67**	.67**	.64**
C86	.47**	.34**	.45**	C86	.67**	.61**	.56**
C87	.47**	.35**	.47**	C87	.61**	.54**	.54**
C95	.57**	.44**	.50**	C95	.59**	.49**	.45**
C97	.60**	.61**	.49**	C97	.46**	.53**	.49**
C116	.40**	.30**	.48**	C116	.54**	.47**	.52**

Items	Non-Clinical			Items	Non-Clinical		
	Anxious Depressed	Internalizing	Total Problem		Anxious Depressed	Internalizing	Total Problem
C118	.58**	.60**	.46**	C118	.54**	.54**	.46**
	Rule Breaking	Externalizing	Total Problem		Rule Breaking	Externalizing	Total Problem
C6	.63**	.49**	.26**	C6	.44**	.36**	.35**
C23	.58**	.57**	.52**	C23	.61**	.55**	.51**
C26	.58**	.55**	.37**	C26	.51**	.41**	.36**
C39	.60**	.544**	.41**	C39	.54**	.45**	.43**
C41	.50**	.52**	.51**	C41	.51**	.44**	.41**
C43	.65**	.59**	.41**	C43	.62**	.59**	.54**
C76	.52**	.43**	.39**	C76	.49**	.45**	.41**
C82	.66**	.60**	.37**	C82	.55**	.47**	.41**
C90	.63**	.51**	.28**	C90	.55**	.42**	.39**
C92	.66**	.56**	.41**	C92	.54**	.46**	.41**
C114	.57**	.51**	.43**	C114	.49**	.42**	.43**
C117	.67**	.61**	.47**	C117	.47**	.40**	.42**
C122	.60**	.50**	.40**	C122	.50**	.42**	.37**
	Intrusive Behavior	Externalizing	Total Problem		Intrusive Behavior	Externalizing	Total Problem
C7	.69**	.60**	.39**	C7	.44**	.48**	.40**
C19	.35**	.34**	.45**	C19	.60**	.48**	.46**
C74	.62**	.49**	.31**	C74	.64**	.50**	.40**
C93	.66**	.42**	.20**	C93	.71**	.45**	.33**
C94	.68**	.57**	.42**	C94	.59**	.56**	.45**
C104	.63**	.51**	.33**	C104	.56**	.47**	.40**

* $p < .05$. ** $p < .01$.

Table 4a indicates that all items had significant positive relation with its respective narrow band subscale, its broad band subscale and total problem score.

Table D3

Item-total Correlation of Personality Disorders, with Cluster A, Cluster B, Cluster C, & Total Cluster Scores among Clinical (N = 408) & Non-Clinical Sample (N = 487)

Items	Clinical			Items	Non-Clinical		
	Paranoid	Cluster A	Total Cluster		Paranoid	Cluster A	Total Cluster
T1	.72**	.53**	.347**	T1	.65**	.52**	.46**
T13	.76**	.57**	.38**	T13	.65**	.54**	.53**
T25	.66**	.65**	.54**	T25	.55**	.42**	.39**
T37	.77**	.64**	.55**	T37	.60**	.58**	.60**
T49	.64**	.53**	.42**	T49	.67**	.56**	.52**
T61	.60**	.49**	.47**	T61	.56**	.46**	.46**
T73	.63**	.56**	.45**	T73	.61**	.54**	.55**
	Schizoid	Cluster A	Total Cluster		Schizoid	Cluster A	Total Cluster
T2	.59**	.38**	.36**	T2	.56**	.47**	.40**
T14	.58**	.39**	.39**	T14	.65**	.59**	.54**
T26	.61**	.47**	.53**	T26	.49**	.34**	.25**
T38	.46**	.42**	.28**	T38	.59**	.50**	.45**
T50	.56**	.59**	.43**	T50	.52**	.54**	.43**
T62	.54**	.43**	.52**	T62	.53**	.41**	.39**
T74	.61**	.55**	.63**	T74	.52**	.46**	.45**
	Schizotypal	Cluster A	Total Cluster		Schizotypal	Cluster A	Total Cluster
T3	.56**	.48**	.53**	T3	.54**	.47**	.41**
T15	.44**	.34**	.18**	T15	.50**	.41**	.32**
T27	.48**	.36**	.27**	T27	.58**	.52**	.52**
T39	.45**	.42**	.50**	T39	.56**	.53**	.52**
T51	.62**	.67**	.52**	T51	.61**	.59**	.53**
T63	.57**	.51**	.55**	T63	.63**	.58**	.53**
T75	.62**	.54**	.58**	T75	.62**	.57**	.57**
T50	.57**	.59**	.43**	T50	.57**	.54**	.43**
T85	.46**	.39**	.37**	T85	.61**	.57**	.56**
	Antisocial	Cluster B	Total Cluster		Antisocial	Cluster B	Total Cluster
T4	.69**	.55**	.46**	T4	.51**	.33**	.60**
T16	.55**	.46**	.42**	T16	.57**	.37**	.32**
T28	.63**	.56**	.48**	T28	.62**	.53**	.51**
T40	.56**	.46**	.42**	T40	.59**	.52**	.46**
T52	.63**	.61**	.59**	T52	.55**	.47**	.43**
T64	.44**	.36**	.37**	T64	.60**	.48**	.47**
T76	.54**	.52**	.49**	T76	.52**	.40**	.36**
T86	.64**	.56**	.46**	T86	.57**	.47**	.43**
	Borderline	Cluster B	Total Cluster		Borderline	Cluster B	Total Cluster
T5	.41**	.38**	.37**	T5	.41**	.36**	.35**
T17	.52**	.57**	.53**	T17	.57**	.53**	.50**
T29	.44**	.29**	.27**	T29	.64**	.58**	.60**
T41	.57**	.47**	.39**	T41	.55**	.52**	.45**

Items	Clinical			Items	Non-Clinical		
	Paranoid	Cluster A	Total Cluster		Paranoid	Cluster A	Total Cluster
T53	.56**	.56**	.51**	T53	.39**	.35**	.30**
T65	.56**	.48**	.41**	T65	.51**	.49**	.41**
T77	.52**	.45**	.41**	T77	.66**	.58**	.58**
T87	.36**	.16**	.18**	T87	.64**	.54**	.58**
T92	.65**	.46**	.43**	T92	.62**	.53**	.46**
T94	.56**	.46**	.52**	T94	.65**	.56**	.52**
Histrionic				Histrionic			
	Cluster B	Total Cluster		Cluster B	Total Cluster		Total Cluster
T6	.24**	.22**	.19**	T6	.55**	.46**	.44**
T18	.53**	.45**	.40**	T18	.38**	.35**	.31**
T30	.68**	.61**	.61**	T30	.59**	.58**	.58**
T42	.41**	.37**	.29**	T42	.51**	.47**	.40**
T54	.65**	.64**	.61**	T54	.62**	.56**	.54**
T66	.63**	.55**	.56**	T66	.62**	.57**	.52**
T78	.62**	.47**	.48**	T78	.60**	.49**	.48**
T88	.65**	.47**	.44**	T88	.64**	.51**	.44**
Narcissism				Narcissism			
	Cluster B	Total Cluster		Cluster B	Total Cluster		Total Cluster
T7	.71**	.56**	.53**	T7	.56**	.43**	.40**
T19	.48**	.36**	.29**	T19	.62**	.55**	.48**
T31	.70**	.61**	.61**	T31	.64**	.50**	.48**
T43	.54**	.42**	.35**	T43	.57**	.54**	.49**
T53	.41**	.56**	.51**	T53	.24**	.35**	.30**
T67	.49**	.43**	.40**	T67	.34**	.37**	.32**
T79	.50**	.42**	.45**	T79	.42**	.35**	.36**
T89	.63**	.51**	.49**	T89	.58**	.53**	.50**
T93	.42**	.49**	.43**	T93	.45**	.35**	.37**
Avoidant				Avoidant			
	Cluster C	Total Cluster		Cluster C	Total Cluster		Total Cluster
T8	.65**	.62**	.52**	T8	.60**	.46**	.42**
T20	.51**	.45**	.44**	T20	.50**	.42**	.38**
T32	.64**	.56**	.51**	T32	.65**	.59**	.57**
T44	.64**	.57**	.44**	T44	.70**	.65**	.59**
T56	.58**	.50**	.41**	T56	.69**	.62**	.56**
T61	.23**	.28**	.47**	T61	.29**	.37**	.46**
T80	.55**	.48**	.34**	T80	.59**	.53**	.45**
Dependent				Dependent			
	Cluster C	Total Cluster		Cluster C	Total Cluster		Total Cluster
T9	.68**	.67**	.55**	T9	.61**	.49**	.38**
T21	.63**	.62**	.49**	T21	.63**	.59**	.52**
T33	.62**	.62**	.48**	T33	.67**	.61**	.51**
T45	.64**	.61**	.47**	T45	.70**	.61**	.53**
T57	.50**	.44**	.49**	T57	.46**	.42**	.47**
T69	.47**	.33**	.32**	T69	.68**	.63**	.62**
T90	.47**	.32**	.31**	T90	.65**	.60**	.56**
Obsessive Compulsive				Obsessive Compulsive			
	Cluster C	Total Cluster		Cluster C	Total Cluster		Total Cluster
T10	.61**	.46**	.35**	T10	.52**	.44**	.44**
T22	.68**	.61**	.49**	T22	.54**	.55**	.48**

Items	Clinical			Items	Non-Clinical		
	Paranoid	Cluster A	Total Cluster		Paranoid	Cluster A	Total Cluster
T34	.58**	.60**	.54**	T34	.58**	.43**	.33**
T46	.59**	.54**	.53**	T46	.46**	.28**	.27**
T58	.62**	.49**	.44**	T58	.46**	.41**	.41**
T70	.66**	.64**	.64**	T70	.55**	.50**	.49**
T82	.64**	.57**	.44**	T82	.55**	.39**	.29**
T91	.45**	.29**	.26**	T91	.59**	.57**	.52**
Nos. Depressive			Total Cluster	Nos. Depressive			Total Cluster
T11	.54**		.19**	T11	.71**		.53**
T23	.72**		.29**	T23	.74**		.55**
T35	.58**		.50**	T35	.74**		.60**
T47	.59**		.28**	T47	.79**		.61**
T59	.49**		.52**	T59	.62**		.53**
T71	.64**		.28**	T71	.77**		.52**
T83	.58**		.25**	T83	.62**		.50**
Nos. Passive Aggressive			Total Cluster	Nos. Passive Aggressive			Total Cluster
T12	.60**		.54**	T12	.48**		.39**
T24	.58**		.37**	T24	.70**		.61**
T36	.65**		.50**	T36	.51**		.40**
T48	.60**		.57**	T48	.62**		.50**
T60	.54**		.29**	T60	.65**		.49**
T72	.54**		.33**	T72	.67**		.52**
T84	.45**		.46**	T84	.51**		.38**

* $p < .05$. ** $p < .01$.

Table D3 indicates that all items had significant positive relation with its respective disorder, cluster, and total PD score.

Appendix E

Personal Communication with Prof. Dr. Thomas Achenbach

9/5/2021

National Institute of Psychology(NIP), Quaid-i-Azam University, Islamabad Mail - Mean scores



Saira Khan <sairakhan@nip.edu.pk>

Mean scores

Achenbach, Thomas M <thomas.achenbach@med.uvm.edu>
To: Saira Khan <sairakhan@nip.edu.pk>

Sat, Aug 12, 2017 at 12:18 AM

Thank you, Saira. Your mean score of 48.23 for mean adaptive functioning qualifies for multicultural norm group 2.

From: Saira Khan [sairakhan@nip.edu.pk]
Sent: Friday, August 11, 2017 2:26 PM
To: Achenbach, Thomas M
Subject: Re: RE: Mean scores

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