Social Appearance Anxiety, Psychological Distress, Coping Strategies and Dermatology-related Quality of Life among patients with Acne Vulgaris

BY

FATIMA ZAKIR

Dr. Muhammad Ajmal

National Institute of psychology

Centre of Excellence

Quiad-i-Azam University

Islamabad, Pakistan

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FATIMA ZAKIR

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Dr. Muhammad Ajmal

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By

Fatima Zakir

Approved By

(Ms. Saira Khan)
Supervisor

(Dr. Asghar Ali Shah)
External Examiner

(Prof. Dr. Anila Kamal)
Director, NIP

Certificate

This is to certify that M.Sc. research report on "**Social Appearance Anxiety, Psychological Distress, Coping Strategies and Dermatology-related Quality of Life among patients with Acne Vulgaris**" prepared by Fatima Zakir has been approved for submission to Quaid-i-Azam University, Islamabad.

Ms. **Saira Khan**

Supervisor

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ABSTRACT

The aim of the present study was to explore the relationship Social appearance anxiety, psychological distress, coping strategies and dermatology-related quality of life among patients with Acne Vulgaris. Demographic variables like age, gender, marital status, occupation were explored with reference to study variables. Sample consisted of 200 patients with Acne vulgaris collected through purposive and convenience sampling. Social Appearance Anxiety was assessed through social appearance anxiety scale (Hart at el., 2008), Psychological Distress was measured through Kessler psychological distress scale (Kessler, 1994), Dermatology-related quality of life was measured through Dermatology Life Quality Index (Finlay & Khan, 1994) and Coping strategies being used were determined through Brief COPE (Carver, 1989). In Phase I, the pilot study was conducted on the sample of 30 patients of acne vulgaris for qualitative inquiry and concluded that an item of one of the questionnaire was difficult; committee approach was done in order to resolve the issue. Phase II, consisted of the Main study (N = 200). The results for qualitative part showed that individuals perceived food for getting acne vulgaris and making it worse, they also stated that teenage is the age to get acne. Moreover, among individuals most of the females reported that stress, makeup products, fairness creams, genes and hormones also play role in causing acne vulgaris. Results also showed most of the individuals especially females use herbal treatment for controlling acne. The results yielded that there was a significant positive relationship between Social Appearance Anxiety, Psychological Distress and Dermatology related Quality of life (as high scores on Dermatology Life Quality Index indicate impaired quality of life). There was a negative correlation between problem focused coping, social appearance anxiety and dermatology-related quality of life. There was also a significant positive correlation between active avoidance coping, social appearance anxiety and dermatology-related quality of life. Social appearance anxiety and active avoidance coping were found to significantly predict dermatology –related quality of life, with psychological distress as mediator. Results showed that females scored significantly higher on social appearance anxiety and dermatology related quality of life where as non-significant gender difference was on psychological distress. Results revealed that young adults scored significantly

higher on psychological distress as compared to adolescents Results also revealed that as acne becomes more severe social appearance anxiety increases leading to more impaired dermatology related quality of life. Findings of the present study show implication in health. Prevention programs can be designed to overcome psychological sufferings of people with Acne Vulgaris.

INTRODUCTION

Chapter 1

INTRODUCTION

Appearance, that is the entire of signs transmitted through body, movement, apparel arrangement, skin condition and facial mimicry, is an essential factor in enthusiastic and social working. At the point when individuals initially meet each other it will frequently be their face, and more often than not their appearance that draws consideration. From psychosocial investigation it is realized that to physically alluring outsiders more characteristics like 'well disposed', 'socially talented' and 'clever' are ascribed than to physically less attractive outsiders. (Feingold, 1992)

As a sense organ, the skin is the site of occasions and procedures urgent to the manner in which we feel about, consider and connect with each other (Morrison, Loken, & Olausson, 2010). To have a typical skin is by all accounts an important essential both regarding a person's psychological and physical wellbeing, and furthermore sexual appeal (Jones, 2000).

Researches have shown that during adolescence, a period with psychological instability. Depression and anxiety have been suggested more prevalent among patients with acne vulgaris. Acne and its squeal significantly impact physical symptoms, emotions, and daily and social activities, study/work, and also interpersonal relationships, thus affecting quality of life of an individual. Moreover, as acne vulgaris mostly affects face of individuals and due to consciousness related to appearance, increased social appearance anxiety is significantly observed in patients with acne vulgaris. (Behnam, Taheri, Ghorbani, & Allameh, 2013; Hazarika & Archana, 2016). Different coping strategies such as active avoidance coping is used by the individual with chronic skin diseases such as acne vulgaris (Silva, Muller, & Bonamigo, 2006).

Acne Vulgaris

Medically, Acne is termed as Acne Vulgaris (Ravisankar, Koushik, Himaja, Ramesh, & Pragna, 2015). Acne vulgaris is a typical skin issue that for the most part influences the face of the effected person, making it difficult to cover up. It influences a huge extent of the populace. It tends to influence adolescents and as a rule, the condition enhances fundamentally or vanishes by early adulthood (Wlodek et al.,

2012). It has been proposed that adults with acne vulgaris experience mental challenges equivalent to individuals with long haul conditions, for example, diabetes and asthma (Mallon et al., 1999).

It is most predominant in youthful adults when people experience greatest improvement of social abilities and relational connections (Motley & Finlay, 1989). It influences 85– 100% of individuals sooner or later in their lives, and it as a rule starts at pubescence. Acne vulgaris can continue into the 30s and past. Individuals of every single ethnic foundation get acne vulgaris. (Hussain, 2009).

Acne vulgaris is a typical incendiary dermatosis which most oftentimes influences the face in the time period of adolescence (White, 1998). It is characterized by lesions such as papules, pustules, comedones, and nodules of pilosebaceous glands. Generally, it starts in regresses and adolescence in the mid-20s. (Ozka et al., 2000). It has been proposed that patients with direct to-extreme acne vulgaris experience the ill effects of low confidence, poor self-perception and experience social tightening of exercises and disengagement (Fried, 2006). As part of the emotional impact, increased levels of anxiety, anger, depression, and frustration are also observed in patients with acne (Thomas, 2004).

Most regularly acne vulgaris influences youngsters when they are experiencing greatest physical, social and mental changes. The face is regularly influenced and as facial appearance speaks to a critical part of one's view of self-perception, it isn't astonishing that a defenseless individual with facial acne may build up a huge psychosocial handicap because of the infection procedure. Passionate pressure can worsen skin inflammation, and patients with acne create mental issues in view of this condition (Koo & Smith, 1991).

Numerous mental issues related with acne have been accounted for to date. These incorporate decline in confidence, weakened by and large impression of his/her prosperity and mental self-image, fear of rejection and humiliation, social withdrawal, confinement in way of life, outrage, over the top mental commitment, tricky family relations in his/her acne, anxiety, and depression (Ozturk, Deveci, Bagcioglu, Atalay, & Serdar, 2013).

Expanding occurrence of depression and other mental issue might be related with acne (Dunn, Neill, & Feldman, 2011). Mallon et al. (1999) reported that acne patients detailed levels of social, mental and enthusiastic issues that were as

extraordinary as those announced by patients with asthma, epilepsy, diabetes, back agony or joint pain.

Acne vulgaris prevalently happens amid puberty and can hold on past 25 years old, most generally in females (Durai & Nair, 2015). Despite the fact that acne does not cause physical weakness, it very well may be related with an impressive psychosocial load including expanded levels of tension, outrage, depression, and disappointment, which thusly can influence professional and academic execution, quality of life (QoL), and self-esteem (Dunn, Neill, & Feldman, 2011).

Quality of life (QoL) is a fundamental term in solution, which is imperative from a mental perspective. It characterizes all parts of patients' prosperity with reference to an infection with which they battle (Dunn, O'Neill, & Feldman, 2011). The estimation of QoL has been perceived as being of extraordinary significance in the appraisal and administration of sicknesses (Finlay, 2000). Dermatology Life Quality Index (DLQI) is the most normally utilized quality of life instrument in dermatology (Finlay & Khan, 1994). Researchers have demonstrated that the nearness of acne negatively affects quality of life of individuals (Dunn, Neill, & Feldman, 2011).

It has additionally been watched that acne vulgaris causes twisted self-perception and significant decrease in life quality associated with skin changes, post-skin inflammation scars or hyperpigmentation (Szepietowski et al., 2012). Studies showed that acne caused a substantial deficit in quality of life (Mallon, Newton, Klassen, Brown, & Ryan, 1999). Moreover, in some studies females seemed to be more diminish than males, despite higher total acne severity scores in males (Kellet & Gawkrodger, 1999).

Psychological distress is largely defined as a state of emotional suffering characterized by symptoms of depression (e.g., sadness; hopelessness lost interest) and anxiety (e.g., restlessness; feeling tense) (Mirowsky & Ross, 2002). On the off chance the pervasiveness of psychological distress (anxiety and depression) in individuals with acne vulgaris go over confirmations that put light upon the nearness of this enthusiastic enduring inside the general population having this infection. Uhlenhake et al. (2010) examined the predominance of depression alone among individuals living with skin break out in a US populace based investigation by examining information from a medicinal cases database. They announced that 8.8%

of patients experiencing acne had likewise been determined to have depression, which was a few times more prominent than that recorded in the overall public.

Uhlenhake et al. (2010) likewise discovered rates of depression two times higher in females experiencing acne than males (10.6% and 5.3% individually), and higher rates of depression in individuals with acne vulgaris matured 18 and over. Callender et al. (2014) US-based investigation analyzed the experience of female adult's acne vulgaris further. In an extensive network test of female adults with acne vulgaris it was evident that more than 70% of the females announced a few indications of anxiety or depression. Aftereffects of prior examinations in an acne vulgaris populace demonstrate that these patients, contrasted with a control a mass without acne vulgaris, were more contemplative and hypochondriac, slanted to bring down mental self-image (Shuster, Fisher, Harris, & Binell, 1978) experienced more social anxiety, social isolation (Van der Meeren, Van der Schaar, & Van Den Hurk, 1985) and depressive feelings (Gupta, Gupta, Schork, Ellis, & Voorhees, 1990).

Social appearance anxiety incorporates social physical nervousness, and is an outcome of one's negative picture of one's own appearance and body (Hart et al., 2008).The Social Appearance Anxiety Scale (SAAS) (Hart et al., 2008) was made to gauge evaluation fears that relates with general appearance, rather than the body alone. There are very limited researches who have on social appearance anxiety in people suffering from dermatological problem and specifically people who are suffering from acne vulgaris. But it has been observed that social appearance anxiety increased in the people suffering from acne vulgaris (Erdemir, Bağcı, İnan, & Turan, 2013).

It has also found out through prior analysis about causes of acne, probable age to get acne, reasons through which acne gets worse, role of genes in having acne. Through these researches it has been evaluated that most of the people perceive unhygienic, spicy, oily food to get acne (Assaedi et al., 2018). Most of the people are of the perception that teenage is the common age to get acne due to hormonal changes and as teenage is the age of puberty (Kamangar, 2012). Moreover a strong role of genes has been reported in earlier researches in having acne (Walton, Wyatt, & Cunliffe, 1988).

The dermatological model of acne vulgaris improvement and upkeep portrays an etiology of expanded digestion of androgens in the dermis in blend with sebaceous

organ affectability to androgens as the conditions for clinically noteworthy levels of acne vulgaris (Ebling & Cunliffe, 1992). Absent from the dermatological model is the pretended by psychosocial factors in the advancement and support of acne vulgaris and furthermore worry with the psychosocial effect of acne vulgaris.

Models related to Acne vulgaris

Biological model. Acne vulgaris (alluded to all through as 'acne') is a procured perpetual incendiary skin issue of the sebaceous organs, pipes and hair follicles, found in body territories with most prominent sebaceous thickness, for example, the back, chest and face (Greydanus, 2015). It is arranged by open and closed comedones (whiteheads), papules (raised red injuries which are contaminated follicles), pustules (all the more enormously kindled papules) and difficult cysts. (Greydanus, 2015).

The current dermatological comprehension of acne vulgaris advancement and upkeep centers around the accompanying four interconnected procedures: strange keratinization (whereby sticky emitted proteins trap sebum in the follicle), follicle colonization by Propionibacterium acnes (nearby microorganisms), expanded sebum creation; and irregular reaction to irritation (Suh & Kwon, 2015).

Despite the fact that acne vulgaris for the most part exhibits as a solitary sickness, it can likewise happen as a side effect of a fundamental or co-comorbid conditions. For instance, acne vulgaris might be a noteworthy manifestation of polycystic ovary disorder or inherent adrenal hyperplasia. (Greydanus, 2015).

Psychological model. The dermatological model does not think about the impact and significance of mental factors in acne vulgaris advancement and support, or its mental effect. Although, the part of such factors has been investigated and worked upon in the psycho-dermatological writing.

Kellett and Gilbert (2001) recommended that psychodynamic, behavioral and stress-diathesis models have ruled the psycho-dermatological writing with respect to the improvement and upkeep of acne vulgaris. They spoke in insight about how the psychoanalytic model initially comprehended psychosomatic conditions as noticeable results of unconscious clashes, consequently seeing acne vulgaris as a change side effect obvious of uncertain internal clash. This comprehension is presently considered exceptionally superfluous. They additionally laid out how the conduct demonstrate comprehends skin inflammation as being kept up by the ecological fortification of a scope of maladaptive practices (e.g. picking). At last, they explained the stress-

diathesis display which conceptualizes skin break out advancement with regards to natural stressors affecting physiological systems.

Kellett and Gilbert (2001) investigated the biological and psychological models as excessively reductionist and unfit to clarify complex collaborations amongst psychosocial and organic components. They exhibited an option biopsychosocial model of acne vulgaris advancement and support. This model suggests that skin acne vulgaris emerges because of the collaboration amongst stress and hereditary components, and that a person's evaluations of their acne vulgaris and social troubles emerging from it increment psychosocial strain. They recommend that this affects working of invulnerable framework, which impacts feelings of anxiety and the development of further acne vulgaris injuries (Kellett & Gilbert ,2001).

Social Appearance Anxiety

Social appearance anxiety is a sort of social anxiety, particularly about one's appearance and body shape. Much like people with social anxiety or social nervousness, people with social appearance anxiety experience a dread of adverse assessment by others. "The fear that one will be adversely assessed due to one's appearance" is characterized as social anxiety. The Social Appearance Anxiety Scale was made to gauge evaluation fears that relates with general appearance, rather than the body alone. Social appearance anxiety incorporates social physical nervousness, and is an outcome of one's negative picture of one's own body and appearance (Hart et al., 2008).

Social appearance anxiety is portrayed as "the dread that one will be contrarily evaluated because of one's appearance" (Hart et al., 2008). Social appearance anxiety connects decidedly with proportions of social anxiety and negative self-perception (Claes et al., 2012), yet does not speaks to the cover among different builds. Or maybe, social appearance anxiety takes advantage of an interesting extent of fluctuation in social anxiety beyond contrary self-perception, depression, identity, and influence. (Hart et al., 2008; Levinson & Rodebaugh, 2011). Moscovitch (2009) found that fear of open feedback regarding skin leads to much distress among individuals with acne vulgaris.

Much like people with social anxiety, social appearance anxiety revolves around the perceived negative evaluation of one's physical appearance (Ganth, 2017). Social appearance anxiety may happen because of the circumstances experienced by an individual, for example, anxiety and tension because of the evaluation of their

adverse body image related to body and appearance by other individuals (Clark & Wells, 1995). It can also be created due to the negative view of the people directly on their body and body's appearance (Dogan, 2010).

From the previously mentioned approach, Hart et al. (2008) characterized social appearance anxiety as a social anxiety outward appearance of an individual's apparent various negativities that the outer appearance of an individual interacted inside the social environment was adversely assessed, and that he/she experience negativities related with his/her body appearance in course of this negative message (Hart et al., 2008).

The social anxiety is also defined as dreading and discomfort experience in associating with others, and the existent tension of being adversely assessed and belittled by others (Moscovitch, McCabe, Antony, Rocca, & Swinson, 2008). The social appearance anxiety is taken as one of the components of the social anxiety. As indicated by self-presentation of social anxiety, individuals encounter social anxiety when they are especially quick to leave a good impression on others and they are uncertain about achieving this good impression (Dilbaz, 1997).

In addition if the individual according to other people around who are socially interacting with them does not see himself/herself enough to create the picture he/she need, social anxiety appears (Hagger & Stevenson, 2010). Social appearance anxiety can likewise be characterized as the social anxiety concerning overall appearance including deformed body shape and negative assessment by others (Koskina et al., 2011).

The social appearance anxiety not just incorporates the assessment in connection to physical appearance of an individual, yet additionally the general evaluations identified with general appearance of an individual and seem closer to the general social anxiety (Koskina et al., 2011).

Self- Discrepancy Theory

The self-discrepency theory guesses two intellectual features: the area and positions of the self. The past subsumes the genuine self, should self and perfect self. Past examinations (Higgins, 1989) have found that individuals make self-pertinent cognitions (real self), considerations concerning how they should need to be (perfect self), and how others may need them to be (should self) through the strategy of social correlation.

Existing implications of the three selves clearly reflect the qualification between the terms. The genuine self or real self suggests a man's introduction of the characters that the individual himself as well as other people think he or she truly has them. The ideal self or perfect self-incorporates the individual's introduction of the attributes that the individual or others may need him or her, preferably, to have. This procedure fuses the individual's desires, objectives and wishes for himself or herself. Besides, the should-self implies a man's depiction of the characteristics that the individual or others figure he or she should or ought to have. This demonstrates the sentiment of commitment, duties, or obligation with respect to herself or himself (Kim & Sundar, 2012).

Among the three selves, the perfect or ideal self-accept the most imperative part in framing the way an individual feels about the genuine self. Exactly when the genuine self is discrepant from the perfect self, an inconsistency or a nonappearance of a pined for positive outcomes happens (Higgins, et al., 1986). The should-self differs from individual to individual. At the point when the real or actual self is discrepant from the should-self, should disparity happen, by the comparable token (Higgins et al., 1986).

Along these lines, self-discrepancy happens when there is conflicting surfaces among the three selves. Variations between the real and the perfect or ideal selves can cause low confidence and uneasiness, while irregularities between the should and the real selves may influence the perfect self just to the extent that one considers that it is basic to fit in with social models (Higgins et al., 1986). In like manner, the impact of the should-self on the ideal or perfect self depends on the noteworthiness that an individual credits to the social standard (Higgins et al., 1986).

The self-discrepancy theory estimates that the distinction between two purposes of perspectives on the self: one's own specific viewpoint or outlook and that of the other individuals around. Six essential sorts of self-state portrayal are directed by consolidating every one of the space of the self with different outlooks of the self into a two by three grid: genuine/other, real/claim, perfect/other, perfect/possess, should/other, and should/possess. Irregularities related with different self-provoke assorted self-variations, every last one of which is related to particular negative passionate and motivational issues. (Higgins, 1986).

In case the real self of a man from his or her position or outlook are not steady with the perfect self, the individual will experience negative sentiments, for instance,

disappointment and disillusionment, and even humiliation, disgrace etc. Low confidence incorporates the genuine self-including the real/claim and real/other, while the perfect self-contains the perfect/other and perfect/possess (Higgins et al., 1986).

Applying the possibility of self-image into clinical research, one can state that the more discrepant the actual self is from the ideal self, the more an individual would experience nervousness identified with society, disappointment and trouble. An idle variable model relating sort of self-disparity (e.g., real/own: ideal/claim inconsistency; actual/own: ought/other error) to sort of passionate issue (e.g., depression; social anxiety) was tried in an examination and results demonstrated that as the size of subjects' real/own: ideal/possess disparity expanded, their affliction from depression manifestations expanded, and as the size of subjects' real/own: ought/other expanded, their anguish from social anxiety indications expanded (Higgins, 1989).

Moreover studies conducted specifically on chronically ill or clinical patients showed highest level of actual/own: ideal/own discrepancy in the depressed patients, the social phobic patients would have the highest level of actual/own: ought/other discrepancy (Higgins, 1989).

There are very few researches describing social appearance anxiety in people with skin problems and specifically people with acne vulgaris. Studies showed that perceived stress and social appearance anxiety were found highest in patients with alopecia areata (a skin condition) followed by acne patients (Jain, 2016).

Further, in an investigation assessing Social Appearance anxiety and quality of life in Patients with acne Vulgaris where Social appearance anxiety scale (SAAS) was utilized to assess social appearance anxiety, it has been discovered that SAAS esteems were fundamentally higher in the acne vulgaris group as compared to control group (Erdemir, Bagci, Inan, & Turan, 2013).

Psychological Distress

Psychological distress alludes to abstract emotional distress and as the level of distress increments; there is an improving probability of the individual having side effects adequate to meet symptomatic criteria for a psychological issue. Depressive indications and additionally psychological distress are frequently comorbid with other incessant illnesses and can prompt poorer wellbeing results (Fortin et al., 2006)

Kessler Psychological Distress Scale is an effective tool to determine psychological distress (Kessler et al., 2002). Kessler psychological distress scale consolidates anxiety and depression manifestations to gauge psychological distress.

Thusly, anxiety and depression are the focal point of writing audit for psychological distress (Taylor, 2012).

Kessler psychological distress scale focuses on anxiety and depression,

Depression. Depression is frequently defined as arousing pain and physical, emotional and behavioral indicators are symptoms of depression. Feelings like empty, dull, exhausted, sad, and feeling less in pleasant and pleasurable activities along with people is integrated in emotional symptoms of depression. Moreover, it is demonstrated in the form of behavioral problems like irritable mood, impaired memory, disturbances complaints, lack of ability to concentrate, loss of sexual desire, difficulty in making decision, too much weeping and guilt feelings. Hunger loss, weakness, indigestion, constipation, headache, sleep problems, dizziness, and fast pulse speed are familiar bodily signs of depression (Schafer, 1992).

Depression defined in another ways like feelings of dys-phoric mood, helplessness, and depreciation of life, having no interest in enjoyable activities, self-blame and, involve in enhedonia and apathy (Lovibond & Lovibond, 1995).

Cognitive theory presented by Beck (1976) defined depression is a cognitive practice. Beck presented three important mechanisms that are negative opinion about self, world and about future. Depressed individual presented the experience about the self, world, and the future in a negative way by building up specific schemas in mind.

According to Beck (1976) cognitive theory, developed set of schemes in mind sets an umpire role between an experience and the emotional response to that experience. In specific condition these negative thoughts of an individual are called automatic thoughts. These thoughts are called automatic because person is unaware about these negative thoughts except the emotional consequences of these thinking's. Depression arises, when big failure occurs, and this loss linked with loss of cognition (Beck, 1976).

As social appearance anxiety is the fear of negative evaluation by others (Hart et al., 2008). When develop such negative cognitions in their minds about evaluation by others then as a consequence individual with skin condition affecting his/her appearance would perceive the situation as threatening and interpreted as socially dangerous, giving rise to thoughts (such as 'people will think I am odd'). As a result these thoughts provoke psychological distress and social anxiety etc. (Bewley, Taylor, Reichenberg, & Magid, 2014).

Anxiety. The Anxiety is autonomic arousal, skeletal muscle effects, anxiety at specific condition and subjective experience of anxious effect (Lovibond & Lovibond, 1995). Anxiety is related to frame of mind that mentions to clear negative effect and symptoms of physical worry; in which individual fearfully predict about coming threat and misfortune are The major components of anxiety are behavior's, thoughts or feelings, and psychological responses. It is also future related; an individual who have anxiety problems must have negative evaluation of upcoming events. The person will be afraid and protect him or her through performing different safety actions. Thus, these protective measures allow him or her to maintain overly negative thoughts. Anxiety can be results of these negative thoughts observe in individuals (Davisson et al., 2009). Anxious affect experienced by somebody and automatic stimulations of skeletal muscles effects are measured as anxiety (Lovibond & Lovibond, 1995).

Cognitive psychologist revealed that anxiety can also be the result of illogical and irrational believes and thought process of an individual (Beck, 1976). Anxiety is the tendency in which an individual build thought that the events are too harmful, risky or dangerous than they really are. Anxiety issues are often times incited by negative dealings of life, every now and again that indicator of unimaginable awful involvement later on; habitually sign the beginning of anxiety disorders the power of uneasiness and its rate depends on the structure of substance and points of view. The memory of individual shifts in both their reasoning and sort of fears and stresses and furthermore relies upon his or her negative state of mind. A man has eager and great stresses and these stresses are very restless (Davisson et al., 2009).

Theoretical Perspective of Psychological Distress

Medical model. The medical model is a prevailing vision of pathology in the World (Kaplan & Sadock, 1998). Psychological distress is considered like disorder in the similar way like some other bodily disease. Medical model employ similar model in describing psychological distress like medical specialists use. In another words, psychological distresses is certain type of neural imperfection accountable for the disordered thought and manners, and have need of medical cure and look after (Carson et al., 1996).

Interpersonal theory. Interpersonal theories point out psychological problems to malfunction forms of relations (Carson et al., 1996). They emphasize that humans are social organisms and a great deal of what we are, a product of our

relationship with others. Psychological distress is also defined as the dysfunctional actions patterns perceived in relationship, which is origin by previous dissatisfying relationship in present. Psychological distress is documented when anxious individual's experience problems in personal relations. According to this viewpoint, distress can be reduce by using interpersonal therapy, which emphases on alleviating problem remaining in relationships and by serving people to attain more suitable relations by learning of new personal abilities and ability (Carson et al., 1996).

Psychodynamic theory. Conventional psychoanalytic model looks at psychological distress from an intrapsychic outlook. They emphasize the job of unconscious on psychological distress and also for determining both normal and abnormal behavior explains different methods. Early childhood experience plays a dynamic role in adjustment of personality in later life; in another word they comprehend the expressions of a sign in the current situation as an expansion of previous or past conflict (Box, 1998). Hence, psychological distress in the life of people might be illustrated like the effort to deal with current problems by use of earlier infancy defense mechanism that might appear as dysfunctional and inappropriate within society for present situation.

Cognitive theory. Cognitive theory, clarified that pessimistically predisposed thoughts are essential components in psychological distressed (Barlow & Durand, 1999). This method is reproduced when anxious individuals classically have a pessimistic opinion about themselves and their surroundings (Weinrach, 1988).

Psychological distress is perceived like a constant experience of sadness, irritability, anxiety, and difficult personal relations (Chalfent et al., 1990). Psychological distress is the subjective condition of depression, anxiety, and stress, which is together psychological and emotional demonstration. In addition, at this point is a large amount of psychological distress, vary from mild to severe, at the severe stage being considered as psychological sickness such as schizoaffective disorder (Mirouskey & Ross, 1989). A couple of vast investigations have shown that patients with acne vulgaris show depressive side effects (Purvis at el., 2006). Past examinations have proposed that acne vulgaris might be related with diminished confidence/self-assurance, relational challenges, joblessness and expanded pervasiveness of anxiety and depression (Koo, 1995).

Cotterill and Cunliffe (1997) depicted 16 cases of finished suicide among dermatology patients, seven of whom had acne vulgaris. The impact of acne vulgaris

on self-perception is accepted to be the principle factor related with anxiety and depression (Gupta & Gupta, 1998). There are contemplates revealing that patients with acne vulgaris experience abnormal state of anxiety and that the level of anxiety was connected decidedly with the acne severity (Wu, Kinder, Trunnell, & Fulton, 1988).

Research has demonstrated that independent of the level of seriousness, patients with acne vulgaris are at expanded hazard for anxiety and depression contrasted with the ordinary populace. Acne vulgaris contrarily influences quality of life, and the more noteworthy the hindrance of quality of life because of acne vulgaris, the more prominent the level of anxiety and depression. Furthermore, a more prominent hindrance of dermatologic quality of life appears to put the patient at an expanded hazard for anxiety disorders. (Yazici at el., 2004).

Purvis, Robinson, Merry and Watson (2006) led an examination on individuals with acne vulgaris to explore the relationship amongst acne vulgaris and depression, anxiety and self-destructive practices. It was discovered that 'Issue acne vulgaris' was related with an expanded likelihood of depressive side effects, chances proportion, uneasiness and suicide endeavors in a strategic model that included age, sexual orientation, ethnicity, school decile and financial status. Subsequently closing, Young individuals giving skin inflammation are at expanded danger of depression, anxiety and suicide endeavors (Purvis, Robinson, Merry, & Watson, 2006).

Coping Strategies

Folkman and Lazarus (1988) characterized coping in psychological manner as always showing signs of change subjective and conduct endeavors to oversee particular outside or inward needs that are assessed as saddling or surpassing the assets of the individual. Lazarus and Folkman (1984) defined coping is in this way exhausting conscious effort to take care of individual and relational issues, and looking to ace, limit or endure stress or strife (Snyder, 1999).

Psychological coping mechanism for dealing with stress are ordinarily alluded as coping skills or coping strategies, non-conscious or unconscious systems, for example, defense mechanisms are for the most part rejected. The term coping for the most part alludes to versatile or useful coping strategies; the strategies lessen feelings of anxiety. Anyway some coping strategies can be viewed as maladaptive, where feelings of anxiety increment. Maladaptive coping would thus be able to be portrayed essentially, as non-coping. Moreover the term coping is otherwise called responsive

or reactive coping. The coping reaction takes after the stressor, these appears differently in relation to proactive coping in which a coping reaction means to take off a future stressor (Snyder, 1999).

Hasting's Types of Coping Strategies. Hasting et al. (2005) identified the foul factors of Brief COPE (Carver, 1997) and these factors are:

Active avoidance coping. These coping strategies appear to be the individual dynamic push to evade stressors and its belongings. active avoidance coping incorporate the things of substance utilize (swing to substance mishandle help the individual encourages a person to cope to feeling of distress), behavioral disengagement(implies restricting one's endeavors to defeat the stressors), self-blaming (is thinking about oneself reason for pressure), expressions of emotions (implies that an individual attempt to ventilate the sentiment of misery), and one thing from diversion scale(in diversion an individual entertain himself with other mindful exercises to redirect his consideration from the issue). Avoidant coping strategies causes individuals to get into such exercises that shields and help them to escape from head-to-head encounter from pressure, for example, substance abuse and withdrawal conceived the circumstance. Avoidant coping strategies are dangerous reactions to the upsetting life occasions that influence the self and the related condition (Holahan & Moos, 1987).

Relating active avoidance coping to dermatological diseases, it has been found out that suggest that the patients with dermatological disorders significantly more often avoid problems by using active avoidance coping so that they do not experience a stress situation adequately. It has also been found out that patients with chronic skin conditions use the avoidance-oriented coping strategy in the initial stage of the illness or whether it is a specific reaction to the chronic disease disturbing normal functioning of the patient. Moreover, patients with skin diseases significantly more often withdraw in the face of stress and problems; they do not seek solutions, avoid or negate difficulties. They confront neither the difficult situation nor the accompanying emotions (Jaworek et al., 2013).

Problem focused coping. This compose most unmistakably spoke to problem focused coping. Main focus for this composes is to oversee and control the circumstance and distressing issues. Individuals more often than not utilize problem focused coping to arrangement to those stressors which are possibly reasonable, for example, family and business related issues. Problem focused coping incorporate the

things of arranging (includes pondering how to cope to the stressors, what steps taken to evacuate the stressors and its unpleasant impacts), looking for instrumental social help (searching for data from others about their encounters), and one point from looking for enthusiastic social help (getting moral help sensitivity and comprehension from others) (Holahan & Moos, 1987).

Prior literature shows the use of problem focused coping by the patients with chronic skin conditions. It has been observed that as a result of positive coping individuals proceed to use problem focused coping to overcome problematic disease that is after accepting the disease they involve in the treatment for improvement (Ograczyk, Miniszewska, Kępska, & Zalewska-Janowska, 2014).

Positive coping. Positive coping incorporates the things of the positive holding back (implies overseeing upset feelings), the utilization of humor (a coping intend to diminish the level stress, decrease antagonistic psychological manifestations), and one thing each from the acknowledgment (a man acknowledge the truth of an upsetting circumstance and he using shifted assets to deal with the circumstance), and enthusiastic social support scale. This sort of coping is viewed as best by endeavors to execute positive coping strategies (Holahan & Moos, 1987).

A research conducted to explore the relationship between medical (disease severity, itch) and psychological variables (disease coping strategies, QoL) in the psoriasis patients group evaluated that positive coping like fight spirit turned out to be an effective disease coping strategy. It is strongly connected with the sense of control and the ability to live and handle the disease and treat it as a challenge worth investing the efforts (Ograczyk, et al., 2014).

Religious/ denial coping. It incorporates the things for religious coping (an individual may swing to religion when under unpleasant circumstance), and denial (refusal to trust that the stressors exists) (Holahan & Moos, 1987).

If we talk about dermatological diseases especially acne it has been found out that most of the time active avoidance, positive and problem focused coping is used by patients and no religious or denial coping is used usually (Ograczyk, et al., 2014; Sowinska-Gługiewicz & Kaliszewska, 2013).

There are few examines that feature coping strategies that individuals with various skin shading use. It has been discovered that individuals with dermatological disorder altogether more regularly apply the style of coping concentrated on avoiding. It additionally turned out that the patients in the dermatological gatherings showed a

steady inclination to get associated with vicarious exercises (Jaworek, Gierowski, Kiejna, & Wojas-pelc, 2013)

An exploration that planned to break down the systems of coping with stress and illness connected by people experiencing rosacea (skin disease) uncovered that patients with rosacea utilize generally avoidance strategies that are emotion focused (Sowinska-Gługiewicz & Kaliszewska, 2013).

Theoretical Perspective of Coping

There are four related point of view to understand coping; behavioral adaptation and evolutionary theory, and psycholoanalytic concepts and ideas about personal growth, life cycle theories of human development, and care studies of the process of managing life crisis transitions.

Evolutionary theory. First point of view is evolutionary theory and behavioral adjustment essentially centered on the idea of alteration that the individual conform to nature and acknowledge the ecological requests. As indicated by Darwinian Theory if the living creatures are not ready to acclimate to nature than they are not ready to live alive. They are commonly reliant with one another for their fundamental needs and for survival they should take aggregate battle. This adjustment can help the living creatures in taking care of their issues and strain survival. Collective change is a lump of alone modification and of particular coping strategies that serve to accord to social event alteration and hoist human network (Olson, 1985).

Furthermore, cognitive behaviorism notices to person's evaluation of the self and the importance of an occasion. Self-efficacy is expectation to be capital coping resources. People attempt to keep up some sort of warm reality between outside the real world and id driving forces when in threat. As indicated by psychoanalytic idea, there is a great deal of protection instrument called by mental procedures, intended to shield one's internal identity shape to rich assault (Olson, 1985).

Psychoanalytic theory. Second point of view is singular development and psychoanalytic ideas. As per Freud idea, conduct is the power to reduce anxiety by satisfying in excess of couple of aggressive instincts. He esteemed that through ego we should resolve the contentions. he clarified in the hypothesis ego procedures about deliberations by empowering the person to precise driving forces and forceful motivations by implication conscience activity are cognitive mechanisms whose capital action are amazing (to change reality) and emotion centered to diminish tension.

Developmental life cycle theory. A developmental life cycle theory is the third point of view. As indicated by psychoanalytic scholars outset life occasions emphatically influence the people's later life and perceive the people's identity. Freud credited that adapting techniques and protection instrument impact contrarily or decidedly people's identity.

If the individual consume anguish time on earth in earliest stages than it can influence the later advancement in his life. The greater part of the inquiries demonstrated that early life occasions don't really anticipate a people's character to example of reaction to emergencies and advances. As per Erickson (1963) there are eight phases of human life; each stage has its own significance throughout everyday life, if there is any trouble in one phase than it impacts people's later life. If the individual cope adequately to one phase then they can ahead another stage viably. Satisfactory issues that happen at one phase in the existence cycle leaves legacy of coping resources that can decide later disaster.

Life crisis and transition theory. The last and fourth viewpoint of coping is with life crisis and transitions. As indicated by this theory life emergency likewise impact the individual coping strategies e.g. life stressors, parental or kin passing, hijacking, psychological oppression. Disaster, for example, flood and tornadoes and being the causality of assault (Moss et al., 1984). The vast majority of looks into have work out here on how people become accustomed to extreme perpetual ailment or damage and face dangerous medical procedure and other unsafe restorative methods (Moss et al., 1984).

Dermatology-related Quality of life

The concept of quality of life broadly encompasses how an individual measures the 'goodness' of multiple aspects of their life. These evaluations include one's emotional reactions to life occurrences, disposition, sense of life fulfillment and satisfaction, and satisfaction with work and personal relationships (Diener, Suh, Lucas, & Smith, 1999)

Quality of life is a subtle idea receptive at different levels of all-inclusive statement from the appraisal of societal or network prosperity to the particular assessment of the circumstances of people or gatherings. Conceptualization has reflected such variation. Wellbeing of populations is done by using broad social indicators at the aggregate level (Flax, 1972; Liu, 1976; Schneider, 1976).Individual welfare is reflected through social and psychological indicators (Bigelow, McFarland,

& Olson, 1991; Bradburn, 1969; Campbell, Converse, & Rodgers, 1976; Heal & Chadsey-Rusch, 1985).

Quality of life (QOL) might be characterized as emotional prosperity. Perceiving the subjectivity of QOL is a key to comprehend this develop. The distinction, the hole, between the expectations and desires for a person and their present experience is reflected through QOL. Human adjustment is to such an extent that life desires are typically balanced in order to exist in the domain of what the individual seems to be conceivable. This empowers to keep up a sensible QOL for individuals who have troublesome life conditions.

Quality of life has additionally been characterized "as the fulfillment of a person's qualities, objectives and needs through the completion of their capacities or way of life"(Schalock, 1990). This definition is predictable with the conceptualization that fulfillment and prosperity originate from the level of fit between a person's view of their target circumstance and their needs or yearnings.

In addition, Gill's and Feinstein's (1994) characterized Quality of life as the manner in which patients sense and respond to their wellbeing conditions and to non-therapeutic parts of their lives (Kowalczuk-Zieleniec, Nowicki, & Majkowic, 1999). As per this perspective, one's QOL contains factors, for example, physical, practical, passionate, and scholarly prosperity, work, family, companions, and different particulars. Disregarding various ideas and meanings of QOL, a larger part of specialists concur that two gatherings ought to be made of variables influencing QOL: objective and emotional. (Potocka, Turczyn-Jabloñska, & Merecz, 2009).

Dermatology life quality index (DLQI) designed to be specific to skin disease is a very effective tool to measure quality of life in patients with dermatological problems (Lewis & Finlay, 2004).

Quality of life is a general term which includes a feeling of joy and satisfaction with life. Quality of life (QOL), self-confidences, and self-esteem in patients with skin diseases have not sufficiently been attended to. Since skin diseases affect well-being, general health, function, and social adaptation of the individual, they can decrease self-confidence of the patient and definitely disrupt self-image or cutaneous body image, mental health, and quality of his life (Higaki et al., 2009; Potocka, Turczyn-Jabloñska, & Merecz, 2009).

The application of quality of life studies in dermatology is recent. It is, however, of particular interest in this field, because social relation are strongly

impacted by skin diseases, psychological status, and daily activities are also effected by the same cause (Jowett & Ryan, 1985; Finlay & Ryan, 1996) but there is no such research talking specifically about dermatology life quality but researches do exist that explain quality of life in people with dermatological problems in terms of skin related quality of life, showing that skin-related quality of life appears to be compromised among patients with cutaneous metastasis, with skin-related overall quality of life, effecting emotion and symptom domain more than functioning domain (Day, Mcmanus, Ma, Lacouture, & Barker, 2017).

As health related quality of life (HRQoL) is considered important when chronic diseases are involved (Halioua, Beumont, & Lunel, 2000) ,so studies discovering health related quality of patients with dermatiological/skin problems are also present.

Quality of life (QoL) is of course an awfully broad conception that encompasses psychological standing, physical health, level of independence, social relations, beliefs, and relationship to the surroundings, etc. this is often why the thought of ``health connected quality of life" has developed within the medical world. It corresponds to an additional restricted notion of quality of life, issues solely the ``dimensions" that square measure specifically and directly regarding health states, 8±10 and excludes parts admire liberty, beliefs, and surroundings. This idea is usually said within the skilled literature as ``health-related quality of life," ``health standing," and ``functional standing." (Wilson & Cleary, 1995).

Health related Quality of Life (HRQoL)

By concentrating on the subject's capacity to do different exercises (both physical and expert), his or her mental status, relations with others, level of solace and substantial responses, this fairly dynamic thought can be utilized to get a more critical look at the outcomes of wellbeing on day by day life. It involves assessing a totally abstract thought as communicated by the patient, as opposed to conventional clinical, mental, natural, and additionally radiologic measures which are assessed by outside eyewitnesses. The creativity of this approach lies in the way that it endeavors to gauge the significance of requirements as seen by the patients themselves, and not by their specialists. (Raymond, 1996). Health-related quality of life studies have been developed particularly in the following areas.

Medico-financial assessments examine the effect of medicinal activities, estimated in both quantitative (viability and resilience) and subjective (quality of life) terms, and their connection to asset utilization. (Moatti, 1994)

In the area of clinical research the effect of ailment on the quality of life of patients is increasingly more and more incorporated into helpful preliminaries as a reciprocal subjective measure (Aaronson, 1989; Greenfield & Nelson, 1992). In spite of the fact that the patient's concept of comfort isn't given the essential significance in last chance circumstances, it is viewed as vital when interminable sicknesses are included, or in situations where a genuine pathology is as of now very much progressed.

Evaluation of clinical practices (Greenfield, & Nelson, 1992). Patients and specialists do not have a similar observation (Raymond, 1996). All things considered, restorative basic leadership must attempt to take the patient's point of view, inclinations and qualities into thought at whatever point conceivable. Pains considered kind by specialists can tremendously affect the lives of their patients (i.e. repeating genital herpes). Then again, certain possibly genuine burdens don't impact quality of life quickly. Therefore it is critical for the specialist to comprehend his or her patients' wants keeping in mind the end goal to pick the right remedial technique (Testa & Simonson, 1996).

Most of the researches on acne vulgaris include studies on general quality of life. As per the investigations skin maladies greatly affect the patient's quality of life. In an examination led in Canada, more noteworthy disability on quality of life of people with acne vulgaris was watched particularly in individuals that were either more established age, female sex, and longer acne span (. 5 years) (Tan et al., 2008). Also, an investigation directed for investigation of quality of life in individuals with acne vulgaris by utilizing dermatology life quality index (DLQI) demonstrated that it significantly affects the quality of life (Abdel-Hafez at el., 2009).

A research aimed to explore the difference between quality of life of individual with acne before and after cosmetological treatment by using dermatology life quality index showed that quality of life of individuals was significantly affected due to the disease but it was found improving after cometological treatements (Chilicka, Maj, & Panaszek, 2017).

Besides, examine directed to survey the severity of the disease i.e. acne vulgaris and decide its impact on the quality of life of teenagers in Lagos, Nigeria discovered that

most adolescents in our examination had mellow acne vulgaris, and the by and large had gentle impact on their quality of life, featuring the reality the impairment in quality of life of a man managing the sickness additionally relies on its severity (Ogedegbe & Henshaw, 2014).

In a research conducted in different hospitals in Pakistan to assess the impact of disease on quality of life of dermatological patients by using dermatology life quality index (DLQI) evaluated that Skin diseases, irrespective of the diagnosis, impair quality of life which is directly proportional to the duration of disease (Ejaz, Rao, Manzoor, & Niaz, 2016).

Moreover, a research was conducted to determine the impact of melisma (skin condition) on quality of life (QoL) using Dermatology Life Quality Index (DLQI) in patients. Results concluded that Melasma causes a "very large effect" on patients' quality of life. Impairment of QoL is greater in females and patients with severe disease (Ali, Aman, Nadeem, & Kazmi, 2016).

Social Appearance Anxiety and Dermatology related Quality of Life

As there are negligible researches on the relationship between social appearance anxiety and health related quality of life or quality of life so here relation between social anxiety (component of social appearance anxiety) and quality of life would be mentioned below.It has been investigated that dermatological-related social anxiety has been shown to be associated with impaired dermatological health related quality of life (Fabbrocini, Cacciapuoti, & Monfrecola, 2018) Moreover, patients with other chronic illnesses seem to experience higher levels of social anxiety and associated fear of social exclusion that add to their worse health-related quality of life during the earlier months of their disease (Kibrisli et al., 2015).

A research that aims to investigate social appearance anxiety and quality of life discovered that acne vulgaris builds social appearance anxiety that result into impaired quality of life of the individual thus leading to anxiety and depression (Erdemir, Bagci, Inan, & Turan, 2013).

Social Appearance Anxiety and Psychological Distress (depression and anxiety)

The relationship between social appearance anxiety and psychological distress can be explained in the light of theoretical approaches to appearance, which Thompson (2012) considered to be useful in understanding appearance distress: evolutionary approaches, stigma, body shame and social anxiety, and objectification approaches. Their relevance to acne will also be considered.

Evolutionary psychologists recommend that perceptions of attractiveness have mostly been molded by choice weights (Thompson, 2012). For instance, Kellett and Gilbert (2001) recommend that 'social attractiveness' is incredibly esteemed by people as it presents rank, which impacts access to assets. They contend that opposition for connectedness or potentially shirking of gathering dismissal impact psychological procedures such as self-feedback and social examination that can be distressing. Kellett and Gilbert (2001) considered the distress experienced in individuals with acne vulgaris from a trans-formative viewpoint and contended the condition could result in disgrace responses as a result of its potential for upsetting self-other attractiveness evaluations, which thus could result in noteworthy emotional well-being concerns.

As indicated by models of stigma Goffman (1963) written work on stigma suggested that noticeable markings assign those affected as 'spoiled' and in this manner less esteemed. Goffman (1963) proposed that in general stigmatized people share indistinguishable convictions of their character from 'spoiled' as more extensive society (self-stigma) and subsequently may see they as missing the mark rendering disgrace an imaginable result. Murray and Rhodes (2005) attracted on this model to interrupt their subjective discoveries among adults living with acne vulgaris who revealed having low confidence and not feeling sufficient. Studies have additionally demonstrated that being liable to stigmatizing appearance-related comments (sanctioned shame) can result in later appearance concern. For case, Magin, Adams, Heading, Lake, and Smith's (2008) qualitative investigation found that prodding/harassing was experienced by a significant 14 minority of members with acne vulgaris, dermatitis and psoriasis and in their records these encounters were causally connected to appearance-related distress.

Further as Social anxiety is component of social appearance anxiety so it has been found that it is associated with various disfiguring or disabling medical conditions has been studied in recent years. These studies have concluded that the conditions were associated with a significant amount of distress in the effected patients (Şahin at el., 2014).

Psychological distress (depression and anxiety) and Dermatology related Quality of Life

From previously mentioned writing we came to realize that acne vulgaris deliver a noteworthy impact on the psychological aspects of individuals managing this

sickness. Out of those psychological variables, we are worried about quality of life, psychological distress (anxiety and depression) and social appearance anxiety being experienced by the affected individuals.

It has been discovered that there is detectable connection between the nearness of psychological distress and poorer quality of life. Besides, patients with psychological distress announced that their skin condition had a huge or to a great degree vast impact on their quality life (Taborda et al., 2010).

It has additionally been discovered that psychological distress (depression and anxiety) and quality of life relate with each other in a way that expansion in anxiety and depression prompts weakness of quality of life of the individual experiencing acne vulgaris (Erdemir, Bagci, Inan, & Turan, 2013).

A similar report demonstrates that people experiencing acne vulgaris showed higher anxiety and depression when contrasted with the control gathering and because of which debilitation in quality of life of people was seen in a way that they scored high on feeling uneasy within the sight of others, diminish in socialization, troubles inside sentimental connections, feeling rejected, turning into a question of joke, and being rejected in a sentimental relationship (Ozturk, Deveci, Bagcioglu, Atalay, & Serdar, 2013).

In individuals with acne vulgaris confirmations have demonstrated that patients with this disease are at expanded hazard for depression and anxiety contrasted with the typical populace that adversely influences quality of life of individuals having that ailment. In addition, more noteworthy the level of anxiety and depression, more noteworthy would be the debilitation in quality of life of effective people who show their coordinate connection (Yazici et al., 2004).

There are not very many explores on discussing dermatology life quality of individuals with acne vulgaris. As indicated by the exploration it has been demonstrated that individuals can be in danger of creating anxiety disorders because of expanded disability in dermatology life quality (Yazici et al., 2004).

Coping Strategies, Psychological Distress and Dermatology related Quality of Life

Evidence suggests a potentially important relationship between psychological distresses, health related quality of life and coping strategies. Individuals with chronic illnesses response to measures of coping and adjustment have been found to relate to health related quality of life and psychological outcomes. While a recent narrative

review highlighted associations between negative coping responses (e.g. avoidance), increased distress, and poorer health related quality of life (Howren, Christensen, Karnell, & Funk, 2013).

It has been found from prior researches that appropriate coping skills strengthens internal focus of control, promotes using problem-focused strategies, and thus reduces anxiety and fear (Lazarus & Folkman, 1984).

Psychological Distress as a Mediator

The mediating effect of psychological distress on the association among different variables has been reported in literature .In some cases psychological distress was found to be the strongest mediator. For instance, talking about one of the researches carried out to examine the mediating role of psychological distress and health risk behavior for relationship between childhood abuse and physical health in adulthood, it was found out that psychological distress came out to be a very strongest mediator for all adverse childhood experiences groups (ACEs) (Beck, Palic, Andersen, & Roenholt, 2014).

An examination in an example of youthful Colombian subjects, scientists tried the theory that particular identity attributes may clarify scores in health related quality of life and that this relationship may be mediated by coping styles and psychological distress. It was discovered that psychological distress and emotional coping style were critical mediators of the connection between health-related quality of life and coping. Suggesting that wellbeing related personal satisfaction was required to increment by 0.095 standard deviations for each expansion in one unit in receptiveness, in a roundabout way through psychological distress and emotional coping style (Pereira-Morales, Adan, Lopez-Leon, & Forero, 2018).

In prior researches evaluating mediating role of psychological distress for health related quality of life observed that psychological distress mediates the effects of some socio-demographic and clinical variables of coronary heart disease patients on the physical health component of health related quality of life (Lee et al., 2014).

Rationale of study

Dermatologic problems account for 15% to 20% of visits to family practices (Kosaraju et al., 2015; Upadhyaya, 2014).Yet how skin disease affects patients' psychosocial well-being receives attention rarely. With advances in generic and specific instruments measuring quality of life, a greater appreciation is given to how skin diseases affect children and adults (Finlay & Khan, 1994).

Skin conditions, such as acne, are sometimes thought of as insignificant in comparison with diseases of other organ systems. Acne's effect on psychosocial and emotional problems, however, is comparable to that of arthritis, back pain, diabetes, epilepsy, and disabling asthma or any other medical problem for that matter (Mallon et al., 1999). Acne has a demonstrable association with depression and anxiety; it affects self-image, personality, emotions and esteem, feelings of social isolation, and the ability to form relationships (Lasek, & Chren, 1998).

Biological issues related to existence of acne vulgaris are clear but there are great psychological consequences as well for example psychological distress, social anxiety, impaired quality of life etc. (Khan, Naeem, Mufti 2001; Yazici et al., 2004). Quantitative and qualitative studies imply that people who suffer from acne vulgaris documented this disease to develop and increase depression and anxiety (Polenghi, Zizk, & Molinari, 2000). Measuring mental health fame with the aid of social anxiety and quality of life, researchers observed that acne vulgaris was related to all of those elements (Erdemir, Bağcı, Yüksel & Turan, 2013). In order to overcome the psychological issues developed as a result of the disease, most of the people used active avoidance coping, as a result of which appearance relate anxiety, depression and other negative mental health issues were increased (Sowinska-Gługiewicz, & Kaliszewska, 2013).

According to the Global Burden of Disease (GBD) study, acne vulgaris affects approximately 85% of young adults aged 12–25 years. Various studies on acne prevalence in adolescents show a frequency ranging from 30% to 100%, and have reported up to 91% of female and 79% of male teenagers being affected by acne. In Pakistan acne accounts for about one-fifth of all visits to dermatologists and is common in individuals aged 13-35 years. In 2010, it was found out in Pakistan that mass media was the most common source of information. As to the cause, 21.7% people believed that hereditary factors and 20.1% thought environmental factors are the major cause of acne. Inappropriate food was considered the major exacerbating factor (Ali et al., 2010).The prevalence of acne vulgaris in urban areas as compared to the rural area. It can be said that the social and economic changes may have led to changes in disease patterns (Kiprono & Wamburu, 2016)

Individual health believes play an essential role in how people get information and knowledge about acne vulgaris and what are the leading causes of this particular disease. Latest researches conducted found that internet and social media to be the

major source of information for people about the disease (Roberts, Foehr, Rideout, & Brodie, 1999). It is believed that unhealthy food plays vital role in developing the disease, which means that different food myths and perceptions run among people regarding acne vulgaris (Assaedi et al, 2018). During puberty hormonal changes occur, different researches investigated that people believe hormonal issues as the major cause of getting acne vulgaris (Uslu et al., 2008).

It has been found that studies that explores quality of life in people with acne vulgaris includes explanation of terms like skin related quality of life, health- related quality of life and it also includes exploration of quality of life as general. Thus, through such studies it has been found out that quality of life is impaired in people with acne vulgaris (Day, Mcmanus, Lacouture, & Barker, 2017; Ogedegbe & Henshaw, 2014)

Prior studies on acne vulgaris in Pakistan involve researches on beliefs and perceptions about acne vulgaris. Numerous researches evaluate depression and anxiety among patients with acne. Apart from the researches in Pakistan, there is variety of worldwide researches on acne vulgaris. These include studies on suicidal ideation, depression, anxiety, social inhibition in patients with acne (Ali et al., 2010).

Moreover, this research explores mediating role of psychological distress between social appearance anxiety and quality of life. Through this it can be explained that acne vulgaris causes social appearance anxiety which in turn effects dermatology-related quality of life of the affected individual. At the same time, the increased psychological distress would affect the way in which social appearance anxiety affected dermatology related quality of life. Additionally, through the present research we would be able to explain different coping strategies being used by the people suffering from acne vulgaris.

Also this research was designed to check out relationship between social appearance anxiety, psychological distress, and dermatology related quality of life of patients. Prior researches have shown that there is lack of research work regarding social appearance anxiety related to acne vulgaris especially in Pakistan.

After keenly looking on the researches it is found that all of the relationships for quality of life are mostly studied for simple quality of life or health related quality of life. As, evaluation of dermatology specific quality of life is required to get the better understanding of functional impairments therefore this gap will be studied in this research.

In addition, the present research also aims to explore coping strategies being used by the patients with acne vulgaris. Lastly, this research can aid in planning of the activities that can be effective in designing programs to deal with psychological problems of individuals suffering from acne vulgaris.

METHOD

Chapter 2

METHOD

Objectives

The present research aims to study

1. The relationship between social appearance anxiety, psychological distress, coping strategies and quality of life and among patients with acne vulgaris.
2. The mediating role of psychological distress in relation between social appearance anxiety and quality of life among patients with acne vulgaris.
3. The role of demographic variable (gender) with study variables.

Hypotheses

The hypotheses of present study are

1. There will be positive relationship between social appearance anxiety, psychological distress and dermatology related quality of life (as high scores on Dermatology Life Quality Index indicate impaired quality of life) among patients with acne vulgaris.
2. There will be a negative relationship between problem-focused coping, social appearance anxiety and dermatology related quality of life among patients with acne vulgaris.
3. There will be positive relationship between avoidant coping, social appearance anxiety and dermatology related quality of life among patients with acne vulgaris.
4. Social appearance anxiety and active avoidance coping will positively predict dermatology related quality of life among patients with acne vulgaris.
5. Psychological distress will mediate the relationship between social appearance anxiety and dermatology related quality of life among patients with acne vulgaris.
6. Females with acne vulgaris will score higher on social appearance anxiety, psychological distress and dermatology related quality of life as compared to males with acne vulgaris.

Operational Definition

Dermatology related quality of life. Dermatology related quality of life includes health related quality of life (Both, Essink-Bot, Busschbach, & Nijsten, 2007). Health related quality of life can be defined as how good an individual functions in their lives and their perceived wellbeing in mental, social and physical domains of health (Stenman, 2010). The present study operationalized dermatology related quality of life through scores obtained from dermatology life quality index (DLQI). High scores on dermatology life quality index indicate impaired quality of life and vice versa (Finlay & Khan, 1994).

Social Appearance Anxiety Scale. Social appearance anxiety is a sort of social anxiety, particularly about one's appearance and body shape. Social Appearance Anxiety Scale (SAAS) has been used to evaluate social appearance anxiety in the present study. Higher scores on Social Appearance Anxiety Scale indicate higher Social Appearance Anxiety whereas low indicate low social appearance anxiety (Hart at el., 2008).

Psychological Distress. Psychological distress is defined as a condition of emotional suffering that is characterized by symptoms of anxiety (e.g., restlessness; feeling tense) and depression (e.g., lost interest; sadness; hopelessness) (Mirowsky & Ross, 2002). In this study psychological distress is operationalized through scores obtained on Kesseler-10 scale. High scores indicate high psychological distress whereas low scores indicate low psychological distress (Kessler & Mroczek, 1994).

Coping strategies. Coping is a distinctive set of thoughts and behaviors that is triggered by the stressors or alarming situations. (Compass, Smith, Saltzman, Thomsen, & Wadsworth, 2001). Coping strategies were operationally defined as scores on Brief COPE, which is evaluated in terms of Active-Avoidance Coping, Problem-Focused Coping, Positive Coping and Religious/Denial Coping. The high scores on each subscale indicate the use of that specific coping strategy (Hastings et al., 2005).

Instruments

Demographic sheet. In order to explore variety of demographic variables e.g. age, gender, occupation, marital status etc. a detailed and inclusive demographic sheet was developed.

Social appearance anxiety. Social Appearance Anxiety scale is a self-report scale developed by Hart et al. (2008). Social Appearance Anxiety Scale (SAAS) to assess fear of situations in which ones overall appearance, including but not limited to body shape may be evaluated. The Social Appearance Anxiety Scale (SAAS) is a rationally derived measure, in which items were chosen based on examination of current measures of social anxiety, body image dissatisfaction, and body dysmorphic disorder. The format of the items was chosen to match general measures of social anxiety. Also the symptoms from the social anxiety disorder, body dysmorphic disorder, and eating disorder sections of the DSM-IV (American Psychiatric Association, 1994) were consulted during the generation of the SAAS item pool (Hart et al., 2008).

SAAS is a brief scale composed of 16-items that participants evaluate on a five point Likert-type scale, ranging from strongly disagree to strongly agree. SAAS items consist of cognitive, emotional, and behavioral statements associated with social appearance anxiety (Sahin & Topkaya, 2015).

It is a five point Likert scale (1= *Not at all*, 2= *A little*, 3= *Sometimes*, 4= *A lot*, 5= *extremely*) ranging from 1 (Not at all) to 5 (Extremely). The first item of the scale is reverse coded. It has a good test re-test reliability, $r = .84$ (Claes et al., 2012). In the present study English version of the scale was used.

Kessler psychological distress Scale (K-10). The Kessler Psychological Distress Scale (K10) created by Kessler (1994) simple measure of psychological distress. The scale consists of 10 items. It is a five point Likert scale: ranging from 1= none of the time, 2= A little of the time, 3= some of the time, 4= Most of the time, 5=All of the time. It has no subscales and it shows good reliability of $r = .88$ (Katon, Lin, Russo, & Unutzer, 2003). In the present study English version of the scale was used.

Dermatology life quality index. The Dermatology Life Quality Index developed by Finlay and Khan (1994) is the most commonly used patient-reported outcome measure in dermatology. It was designed to be a generic dermatology health-related quality of life (HRQL) questionnaire and has been translated into 55 languages (Twiss, Meads, Preston, Crawford, & McKenna, 2012).

Each item in the questionnaire is scored on a four-point Likert scale: Not at all/Not relevant = 0, A little = 1, A lot = 2 and Very much = 3. It shows good reliability of $r = .87$ (Wang, Zhao, & Zhang, 2004)

Brief COPE. The brief COPE was originally developed by Carver (1989) and translated into Urdu by Akhtar (2005). It consists of 28 items, that are arranged in a 4 point Likert type scale (1= Never, 2= very less, 3 = sometimes and 4= a lot). Factor structure of Hastings et al. (2005) for Brief COPE is used in the present research. Reported four scales namely: Problem focused coping, Active avoidance coping, Religious denial coping and positive coping. Problem focused coping include item no. 2, 5,7,10, 14, 23 and 25. Active avoidance coping include item no. 1, 4,6,9,11,13,16,19,21 and 26. Religious/denial coping included item no. 3,8,22 and 27. Positive coping includes item no. 12, 15, 17,18,20,24 and 28 (Hastings et al., 2005). Low scores on each subscale indicate less use of that coping strategy and high score indicate the more use of that coping strategy.

Global Acne Grading System. Methods of measuring the severity of acne vulgaris include simple grading based on clinical examination, lesion counting etc. Grading is a subjective method, which involves determining the severity of acne, based on observing the dominant lesions, evaluating the presence or absence of inflammation and estimating the extent of involvement (Witkowski & Parish, 2004).

Global acne grading system consists of 5 categories ranging from 1 = almost clear skin to 5 = highly effected skin. Individuals are graded according to their acne severity on this scale. This scale can be rated by professionals or one with the understanding of acne grades.

Research Design

The present study is correlational cross sectional research. Survey method is used for data collection and analyses are quantitative in nature. The study comprises of two phases. In first phase pilot study/tryout was conducted whereas the second phase comprise of main study.

Phase I: Tryout phase.

Objectives. The tryout phase was conducted in order to explore the cultural appropriateness and ease of comprehension of the scales used in the research i.e. Social Appearance Anxiety Scale (SAAS), Kesseler-10 (K-10), Brief COPE and Dermatology Life Quality Index (DLQI). This was done keeping in concern of sample of patients with Acne Vulgaris ages range from 16 to 25.

Procedure.

Step I: Author's consent. In order to follow research ethics for utilizing the instruments of Social Appearance Anxiety Scale (SAAS), Kesseler-10 (K-10), Brief

COPE and Dermatology Life Quality Index (DLQI) respectively it was necessary to obtain the consent to do so from the author of each instrument. In order to do so Author of each scale were contacted via email. All authors showed their support in the matter and granted their approval to use the instrument in the research.

Step II: Sample opinion. To obtain the sample opinion 30 patients of acne vulgaris were approached in their setting. The age of the sample ranged from 16 to 25 years. Each individual was explained the purpose of study and their consent to participate was taken. Sample was given verbal as well as written instruction to give their opinion on the cultural appropriateness and ease of comprehension of all four scales. The participants were assured that the collected information will be kept confidential and will be used for research purpose alone. . Feedback of individuals concluded that an item of one of the questionnaire was difficult. Item number 15 of Social Appearance Anxiety Scale (SAAS) was problematic with cultural point of view.

Step III: Committee approach. After the sample opinion was collected, a committee approach was called out to reflect on the feedback obtained thereof and to decide further procedures to be followed in the study. Four professionals including two research associate lecture and two PhD scholars were approached for their feedback and suggestions on that specific item.

Step IV: Results. On the basis of those suggestion item 15 of social appearance anxiety scale was rephrased from 'I worry that a romantic partner will/would leave me because of my appearance' to 'I worry that a romantic partner/ intimate partner/ spouse will/would leave me because of my appearance'.

Phase II: Main study

Objective. The purpose of the main study was to test the proposed objectives related to hypotheses and study relationship between social appearance anxiety, psychological distress, coping strategies and dermatology-related quality of life among patients with Acne vulgaris.

Sample. The sample of the present research consists of 200 patients (89 males and 111 females) with acne vulgaris. Purposive and convenience sampling technique was used and data was selected from different public sector and private sector hospitals as well as colleges and universities of Rawalpindi and Islamabad. Acne vulgaris was diagnosed by the doctors in hospitals. Professionals were asked to co-operate in order to identify the grade of acne vulgaris of patients. As, it was not

appropriate to ask doctor to grade acne for each and every patient so doctor was also asked to guide the researcher on how to grade acne vulgaris so that the researcher can grade the disease on her own. As Acne is easily noticeable therefore university and college students were also approached and for them acne was graded by the researcher.

Table 1

Demographic Profile of the Sample (N = 200)

Demographic variables	*f (%)*
Age	
16 – 20	78 (39)
21 – 25	119 (61)
Gender	
Male	89 (44.5)
Female	111 (55.5)
Education	
Undergraduate	59 (29.5)
Graduate	99 (49.5)
Post graduate	42 (21)
Marital status	
Married	195 (97.5)
Unmarried	5 (2.5)

In Table 1, demographic variables have been summarized by their frequencies and percentages. 44.5% of the sample comprised of males and 55.5% comprised of females. 49.5% had education level of graduation. 61% of sample comprised of individuals aged between the age of 21 to 25 years. 97.5% of the sample was unmarried.

Procedure

Data was collected through convenience sampling technique from different public and private sector hospitals as well as colleges and universities of Rawalpindi and Islamabad. Approval of patients through informed consent was taken, and all the participants were briefed about the aim of the study. All the volunteers were ensured that the data taken from them would be held confidential and would entirely be

consumed for research purpose only. Questionnaires of social appearance anxiety, psychological distress, coping and quality of life were provided to them. Along with these, severity of acne was marked by using acne grading scale. The participants were requested to response each item as honestly as possible. Acne vulgaris was diagnosed by the doctors in hospitals. Professionals were asked to co-operate in order to identify the grade of acne vulgaris of patients. As, it was not possible and appropriate to ask doctor to grade acne for each and every patient so doctor was also requested to guide the researcher on how to grade acne vulgaris so that the researcher can grade the disease on her own. As Acne is easily noticeable therefore university and college students were also approached and for them acne was graded by the researcher. At the completion of the questionnaires their participation was appreciated.

RESULTS

Chapter 3

RESULTS

The aim of the present research was to study relationship between social appearance anxiety, psychological distress, dermatology-related quality of life and coping strategies being used by the people with acne vulgaris. The impact of these variables was computed across demographics. Appropriate statistical procedures were used to analyze the data.

The frequencies and percentage of the demographic profile of the sample was computed. The alpha reliability coefficient of the instrument and their respective subscales was also computed. To check the normality of the data for the present study descriptive statistics (mean, standard deviation, and skewness) were computed. Correlation was computed to explore the relationship between and social appearance anxiety, psychological distress, dermatology related quality of life and coping along with its subscales. To explore the predicting effect of psychological distress and social appearance anxiety for dermatology related quality of life regression analysis was carried out. To analyze mediating role of psychological distress in relationship between social appearance anxiety and dermatology related quality of life mediation was used. To explore differences along gender, age categories and acne severity independent sample t-test and ANOVA was computed. The results are present in the form of graphs for qualitative part of the data whereas rests of the results were displayed in tabular form.

Table 2

Cronbach's Alpha Reliabilities Coefficients of the Study Variables (N = 200)

Measures	No. of Items	*α*	*M*	*SD*	Range		Skewness	Kurtosis
					Potential	Actual		
SAA	16	.95	37.93	14.35	16-76	16-80	.44	-.76
PD	10	.93	25.54	9.64	10-50	10-50	.27	-.93
PF	7	.77	9.86	3.16	7-21	7-28	1.38	1.53
AA	10	.77	20.76	5.56	10-33	10-40	-.09	-.73
PC	7	.71	16.53	3.74	7-27	7-28	.03	-.01
RD	4	.70	9.37	2.84	4-15	4-16	-.17	-.67
DLQI	11	.82	7.74	5.25	0-21	0-32	.64	-.54

Note. SAA = social appearance anxiety, PD = psychological distress, PF = problem focused, AA = active avoidance, PC = positive coping, RD = religious/denial and DLQI = dermatology life quality index.

Table 2 represents descriptive of all the scales along with their subscales. In the present study reliability social appearance anxiety scale (SAAS) was .95. Reliability of Kessler-10 (K-10) scale was found to be .93. Moreover, reliability of all subscales of Brief COPE inventory ranged from .70 to .77 while for Dermatology Life Quality Index (DLQI) it was .82.

Table 3

Correlation of Scales and Subscales (N = 200)

Scales	1	2	3	4	5	6	7
SAA	-	.60**	-.07**	.38**	-.03**	.11**	.71**
PD		-	-.09**	.52**	-.02**	.30**	.55**
PF			-	-.20**	.03**	-.11**	-.10**
AA				-	-.03**	.65**	.49**
PC					-	.07	-.04**
RD						-	.29**
DLQI							-

Note. ***p<0.01*.PF=problem focused, AA=active avoidance, PC=positive coping, RD=religious/denial, DLQI= dermatology life quality index, PD=psychological distress and SAA=social appearance anxiety.

Table 3 illustrates correlation between SAAS, Kessler-10 scale measuring psychological distress, DLQI and coping strategies (problem-focused, active avoidance, positive, and religious/denial). It shows that there is a significant positive relation between psychological distress, social appearance anxiety and quality of life (as high scores on Dermatology life quality index indicate impaired life quality) which means that as social appearance anxiety and psychological distress is increased then quality of life is impaired accordingly. Table also indicates that there exist negative relationship between problem focused coping with psychological distress, social appearance anxiety, quality of life and other coping strategies except positive coping ($p < .01$).

To check the predictive role of psychological distress for dermatology related quality of life and coping strategies in people with acne vulgaris linear regression analysis was conducted *(see table 3)*

Table 4

Multiple Regression Showing the Effects of Psychological Distress and Social Appearance Anxiety on Quality of Life. (N = 200.

			Dermatology related Quality of Life	
			CI (95%)	
Variables	β		LL	UL
(constant)				
SAA	.58***		.16	.25
PD	.10		-.02	.12
PF	-.02		-.19	.12
AA	.16**		.02	.28
PC	-.02		-.15	.10
RD	.09		-.07	.39
R^2		.59**		
F		44.10		

Note. CI = Confidence Interval, *LL* = lower limit, *UL* = Upper limit, PF=problem focused, AA=active avoidance, PC=positive coping, RD=religious/denial, DLQI= dermatology life quality index, PD=psychological distress and SAA=social appearance anxiety.

In the Table 4 multiple regression analysis was used with psychological distress and social appearance anxiety and coping strategies as predictors of quality of life of among individuals with acne vulgaris. Results indicated that social appearance anxiety and active avoidance coping positively predicted dermatology related quality of life (as high scores on DLQI indicate impaired quality of life). Out of these variables, social appearance anxiety has the strongest relationship with the dependent variable i.e. dermatology related quality of life (β = .58). The overall model accounts for 58% of variance.

Mediation

A mediation model is one that seeks to identify the mechanism or process that underlies the observed relationship between independent variables (X) and a dependent variable (Y) via the inclusion of third variable, known as mediator (M). Mediating role of psychological distress in predicting dermatology related quality of life of people with acne vulgaris. Mediation is hypothesized casual chain in which one variable (social appearance anxiety) effected by second variable (psychological distress) and in turn, affects a third variable (quality of life of people with acne vulgaris). The intervening variable M is the mediator. It mediates the relationship. Mediation can only occur based on assumptions proposed by Barron and Kenny (Kenny, 2014), that all three intervening variables must be significantly related with each other, either positively or negatively.

The mediation process stated below occurred below due to significant relationship among variables. The dependent variable Y (Dermatology related Quality of Life) has been tested in model 1 to see direct effect of independent variable X (Social Appearance Anxiety) as mediation process (X →Y) with mediator (psychological distress). Whereas, in model 2 psychological distress was tested to check its indirect effect (X→ M→ Y) on the relationship between social appearance anxiety and dermatology related quality of life.

Table 5

Mediation Role of Psychological Distress Between Social Appearance Anxiety and Dermatology Related Quality of Life (N = 200)

Model	*B*	*SE B*	*p*	*CI (lower)*	*CI (Upper)*
		Model without Mediator			
Constant	-2.15	.74	.00	-3.61	-.69
SAA—DLQI (*c*)	.26	.02	.00	.22	.30
R^2 *(Y,X)*	.51				
		Model with Mediator			
Model 1: PD as dependent variable					
Constant	10.22	1.54	.00	7.17	13.27
SAA—PD (*a*)	.40	.04	.00	.32	.48
R^2	.36				
Model 2: DLQI as Dependent variable					
Constant	-3.28	.80	.00	-4.85	-1.71
PD—DLQI (*b*)	.11	.03	.00	.04	.17
SAA— DLQI(*c'*)	.22	.02	.00	.17	.26
Indirect effect	.04	.01		.02	.08
R^2 *(Y, M, X)*	.53				

Note. PD = Psychological distress, SAA = Social Appearance Anxiety, DLQI = Dermatology Life Quality Index.

Table 5 shows mediating effect of psychological distress on social appearance anxiety and dermatology related quality of life. The first part of the table (without mediator) depicts that dermatology related quality of life was significantly predicted by social appearance anxiety (B = .26, p<.05). The R^2 value shows that 51% of variance in dermatology related quality of life by social appearance anxiety. Model 1 shows that social appearance anxiety significantly predicts dermatology related quality of life. The R^2 value shows 36% of variance explained by social appearance anxiety in dermatology related quality of life. Model 2 shows that psychological distress is significant predictor (B = .11, p<.05) of dermatology related quality of life in the presence of social appearance anxiety. The variance accounted for this model is 2% which is different from model without mediator.

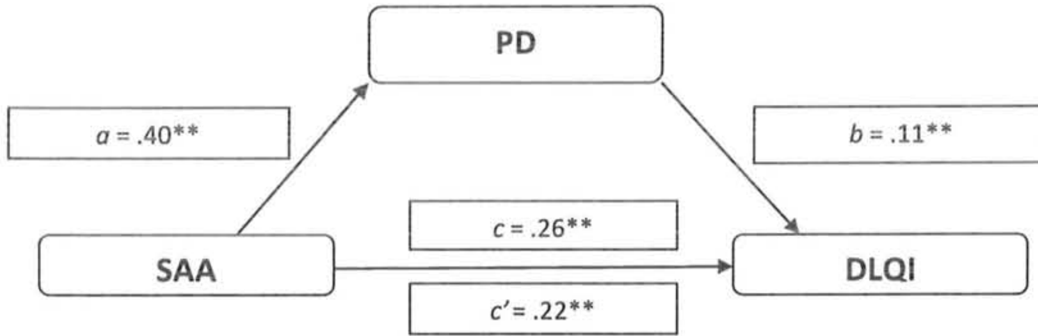

Figure 1. Mediating role of psychological distress social appearance anxiety and dermatology related quality of life.

Figure 1 shows the Mediating role of psychological distress social appearance anxiety and dermatology related quality of life. According to Judd and Kenny (1981) Difference of Coefficients Approach, the indirect effect (ab)or the amount of mediation is equal to the reduction of the effect of the dependent variable on the outcome or ab = c (total effect) - c' (direct effect). The mediating effect size is calculated to be .04 with same sign 95% confidence intervals (.22, .26) shows that 2% variance in dermatology related quality of life is attributable to indirect effect of social appearance anxiety on the dermatology related quality of life through psychological distress.

Table 6
Mean Differences in Gender Among Variables of the Study (N = 200)

Variables	Male (n = 89)		Female (n = 111)				95% CL		Cohen's d
	M	SD	M	SD	$t_{(198)}$	p	LL	UL	
SAA	33.1	10.9	41.7	15.6	4.6	.00	-12.3	-4.9	.64
PD	20.4	7.6	29.7	9.1	7.7	.06	-11.7	-6.9	-
PF	9.52	2.57	10.14	3.54	1.4	.01	-1.4	-.22	.20
AA	18.9	4.9	22.2	5.6	4.3	.20	-4.7	-1.7	-
PC	15.6	3.5	17.3	3.7	3.4	.70	-2.8	-.74	-
RD	8.5	2.8	10.1	2.6	4.2	.15	-2.4	-.87	-
DLQI	5.8	3.9	9.3	5.6	5.1	.00	-4.8	-2.1	.72

Note. PF=problem focused, AA=active avoidance, PC=positive coping, RD=religious/denial, DLQI= dermatology life quality index, PD=psychological distress and SAA=social appearance anxiety.

Table 6 indicates gender differences along study variables. Significant mean differences were observed on social appearance anxiety and dermatology related quality of life scales. Females significantly scored high on social appearance anxiety. Moreover, females also scored high on dermatology related quality of life indicating poor life quality as high scores on dermatology life quality index show impaired dermatology related quality of life.

Table 7
Mean differences in age categories among variables of the study (N=200)

Variables	Adolescents 16 - 19 (*n* = 61)		Early adults 20 - 25 (*n* = 139)		$t_{(198)}$	*p*	95% CL		Cohen's *d*
	M	*SD*	*M*	*SD*			*LL*	*UL*	
SAA	36.90	13.50	38.38	14.72	.67	.50	-5.83	2.87	-
PD	21.43	8.09	27.35	9.73	4.15	.00	-8.72	-3.11	.66
PF	10.61	3.27	10.21	2.95	.84	.39	-.52	1.32	-
AA	20.64	5.35	20.81	5.61	.19	.84	-1.85	1.52	-
PC	11.90	3.50	11.71	3.84	.34	.73	-.93	1.33	-
RD	8.92	2.67	9.57	2.89	1.49	.13	-1.50	.20	-
DLQI	6.67	4.31	8.20	5.55	2.10	.03	-2.96	-.09	-

Note. PF = problem focused, A = active avoidance, PC = positive coping, RD = religious/denial, DLQI = dermatology life quality index, PD = psychological distress and SAA = social appearance anxiety.

Table 7 indicates differences on study variables across age. Significant mean difference was observed only on psychological distress where adults scored higher as compared to adolescents. Non-significant differences were observed on all other study variables.

Table 8
One Way ANOVA with Post Hoc on Severity of Acne Vulgaris with Variables (N = 200)

variables	Some (n = 60) M(SD)	Multiple (n = 69) M(SD)	Apparent (n = 71) M(SD)	F	I-J	MD(I-J)	p	95% CL L.L	U.L
PD	21.75(8.98)	23.19(7.97)	31.03(9.27)	22.04	3>1	-9.27*	.00	-12.91	-5.65
					3>2	-7.84*	.00	-11.34	-4.34
SAA	24.80(7.06)	37.77(11.81)	49.18(11.46)	88.07	2>1	-12.96*	.00	-17.34	-8.60
					3>1	-24.38*	.00	-28.72	-20.04
					3>2	-11.41*	.00	-15.60	-7.23
DLQI	4.15(2.90)	6.55(4.25)	11.92(4.84)	61.55	2>1	-2.40*	.00	-4.13	-.68
					3>1	-7.76*	.00	-9.48	-6.05
					3>2	-5.36*	.00	-7.02	-3.71

Note. PD = Psychological distress, SAA = Social Appearance Anxiety, DLQI = Dermatology Life Quality Index.

In table 8, three different groups containing different levels of acne severity are compared with the help of one way ANOVA in order to check which groups score high on psychological distress, social appearance anxiety and shows poor quality of life as acne severity increases. According to the table, people with more severe acne scored higher on psychological distress and social appearance anxiety. Moreover, individuals having severe acne scored higher on dermatology life quality index as high scores on dermatology life quality index indicating poor quality of life.

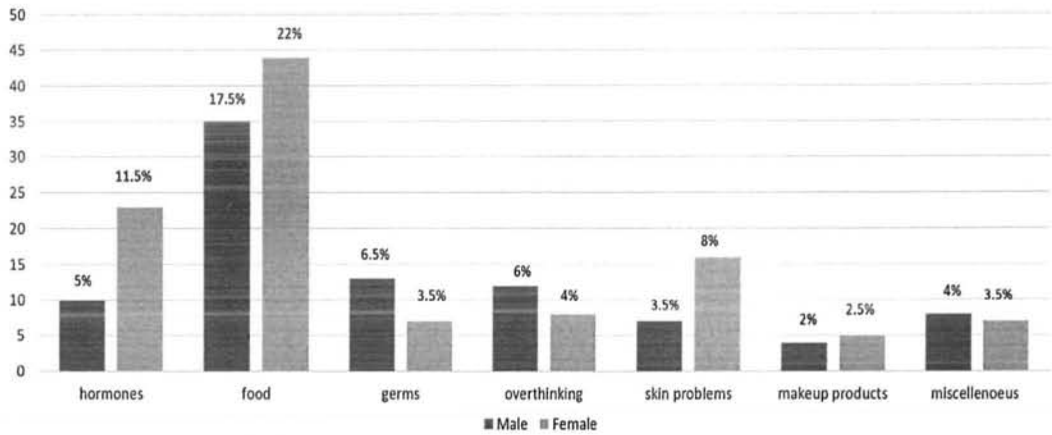

Figure 2. Reason for getting acne *(N = 200)*

Figure 2 illustrates that 17.5% of males' perceived food as a major cause of acne where as 22% of females attributed acne to food. 11.5% of females assumed hormones to cause acne whereas 5% of males considered hormones to be responsible for acne.

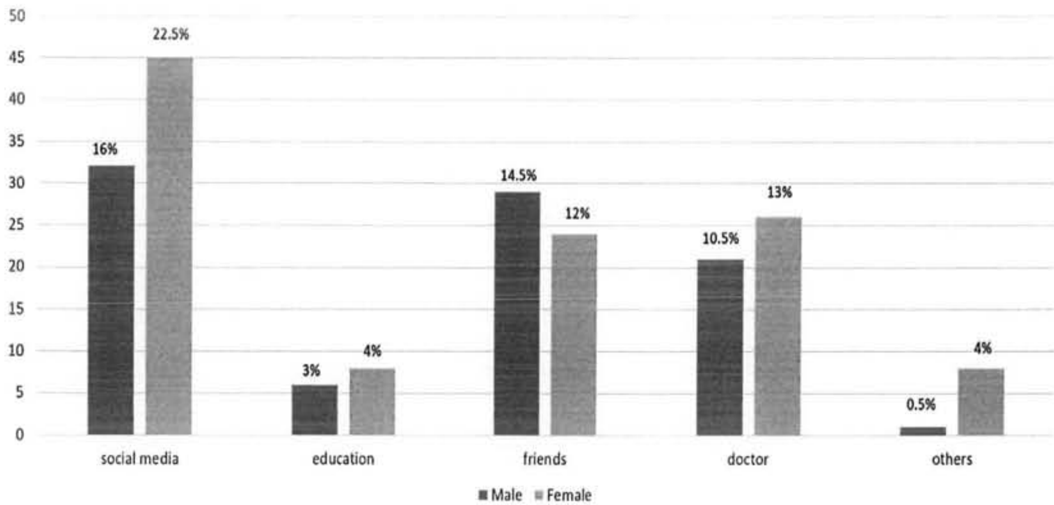

Figure 3, Source of information about Acne *(N = 200)*

Figure 3 illustrates that 22.5% female whereas 16 % were male documented that they got information about acne through social media (internet). 14.5% of males whereas 12% of females reported that they got information about acne from friends.

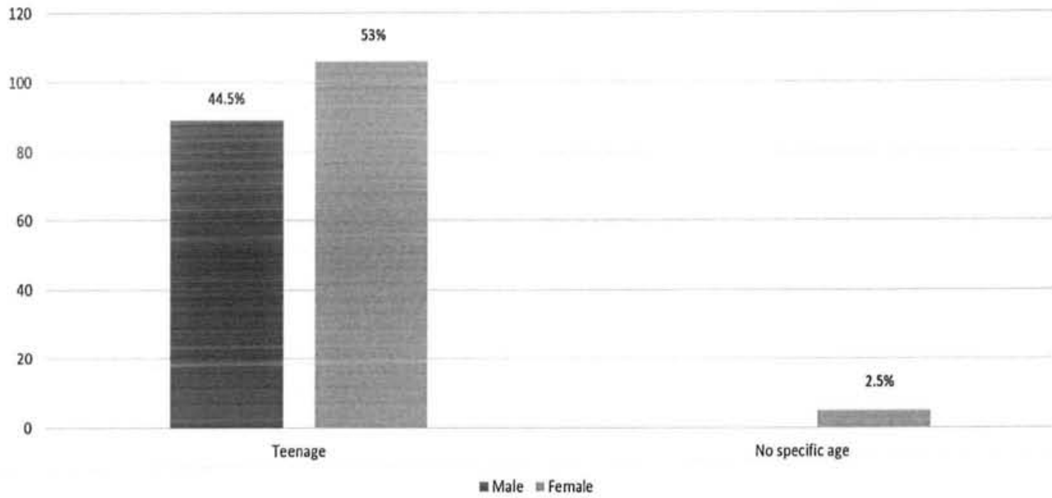

Figure 4. Age to get acne *(N = 200)*

According to figure 4, 53% of females whereas 44.5% of males reported that teenage is the age to get acne. 2.5% of female reported that there is no specific age to get acne.

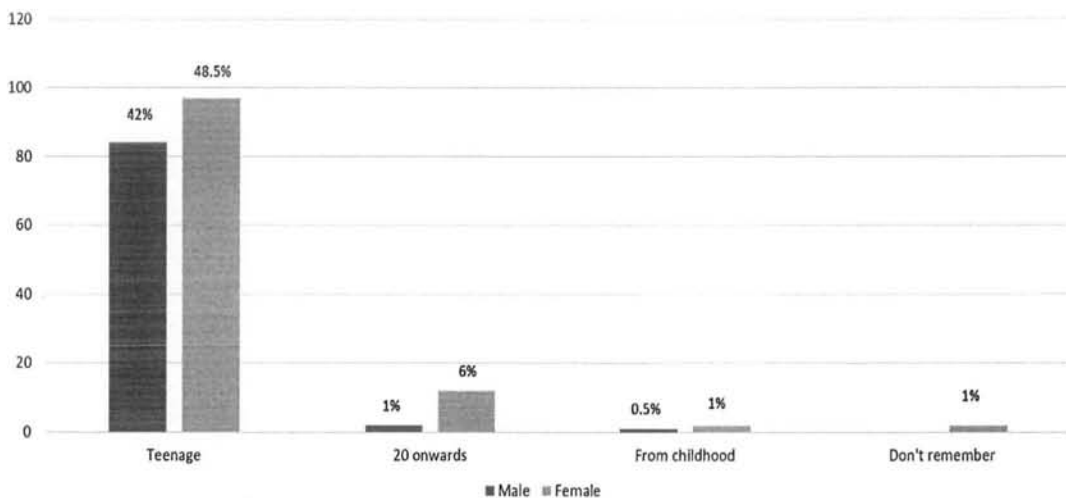

Figure 5. Age at which individuals got acne *(N = 200)*

According to *figure 5,* 48.5% of females reported that they got acne in their teenage whereas 42% of males stated that they got acne in their teenage. 6% of females whereas 1% of males described that they got acne from age of 20 and onwards.

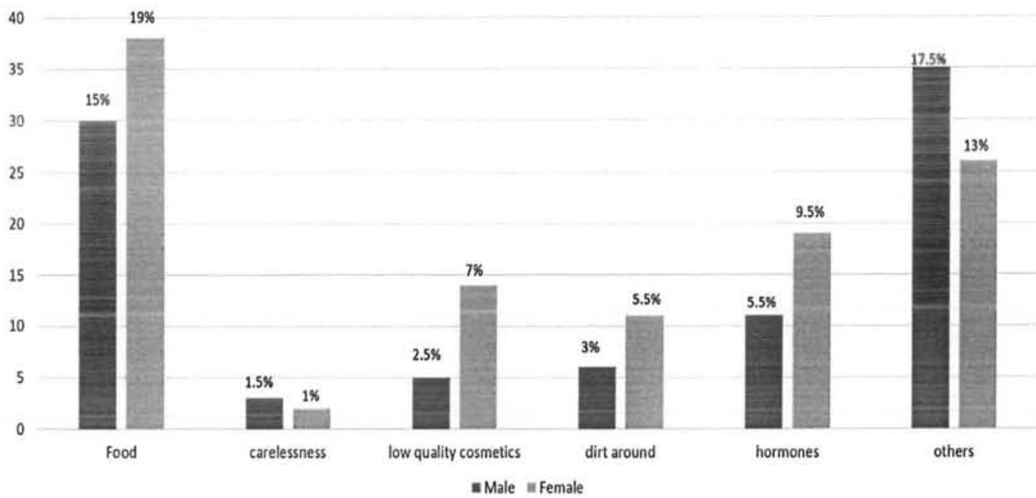

Figure 6. Reasons for acne getting worse *(N = 200)*

Figure 6 illustrates that 19% of females whereas 15% of males reported food (oily, spicy, junk etc.) as the cause for getting acne worse. Moreover, 9.5% of females whereas 5.5% of males reported hormones (hormonal imbalance, hormonal change) as the cause.

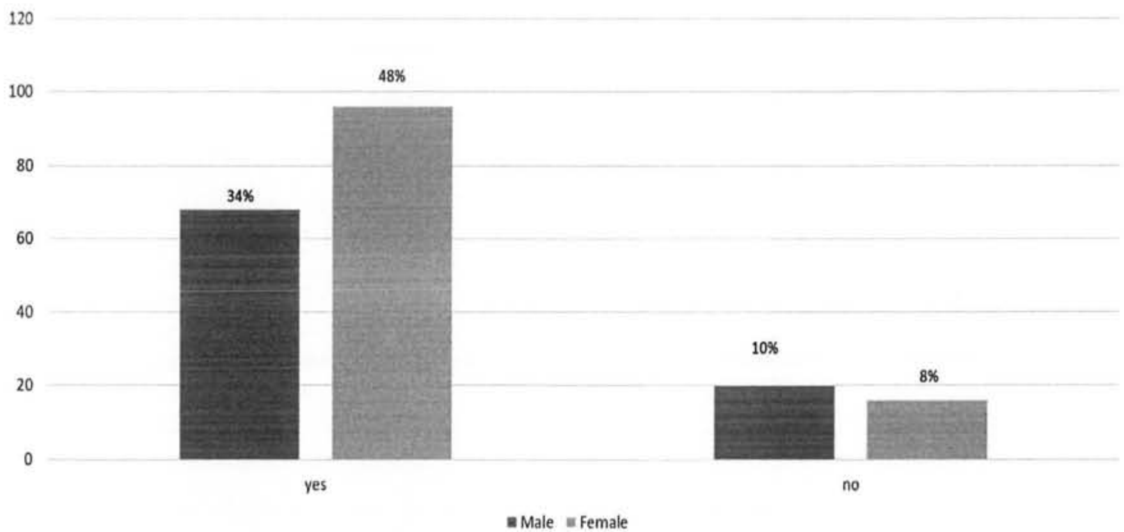

Figure 7. Stress causing acne *(N = 200)*

According to *figure7,* 48% of females whereas 34% of males reported that stress do cause acne. 10% males and 8% females reported that stress does not cause acne.

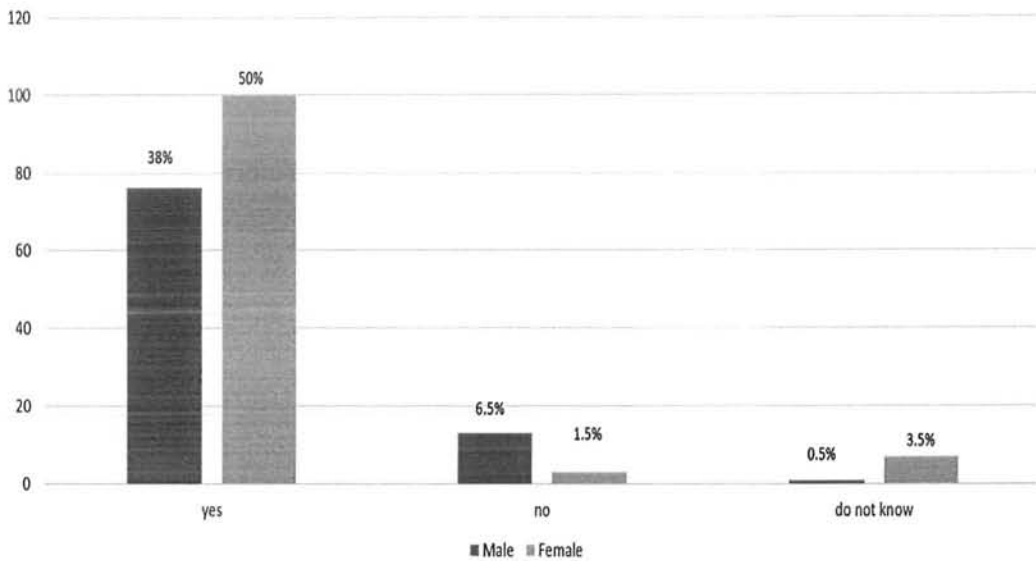

Figure 8. Makeup causing acne *(N = 200)*

According to *figure 8, 50%* of females whereas 38% of males reported that makeup do cause acne. 6.5% of males where as 1.5% of females described that makeup does not cause acne.

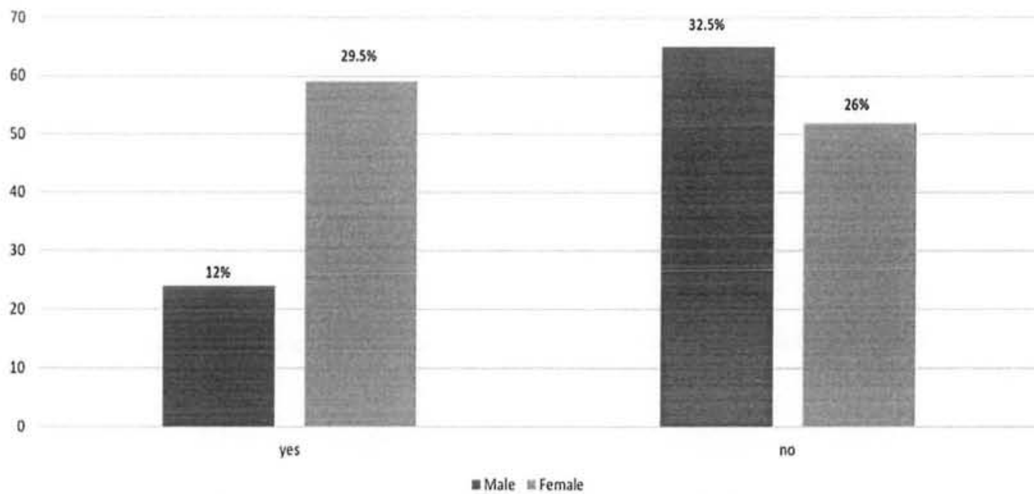

Figure 9. Using of fairness creams *(N = 200)*

Figure 9 illustrates 26% of females whereas 12% of males reported that they use fairness creams. 32.5% of males and 26% of females stated that they does not use fairness creams.

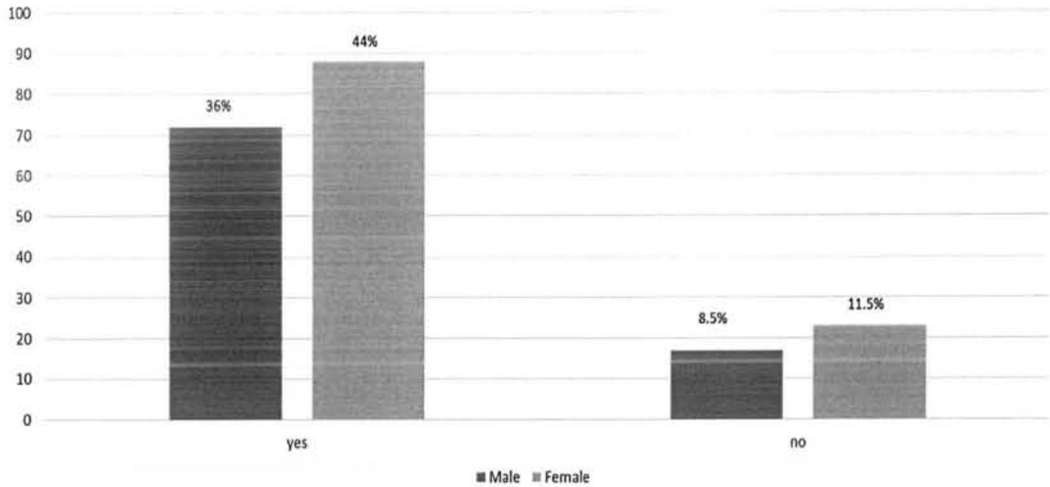

Figure 10. Fairness creams causing acne *(N = 200)*

According to *figure 10,* 44% of females whereas 36% of males reported that fairness creams do cause acne. 11.5% of females whereas 8.5% of males informed that fairness creams does not cause acne.

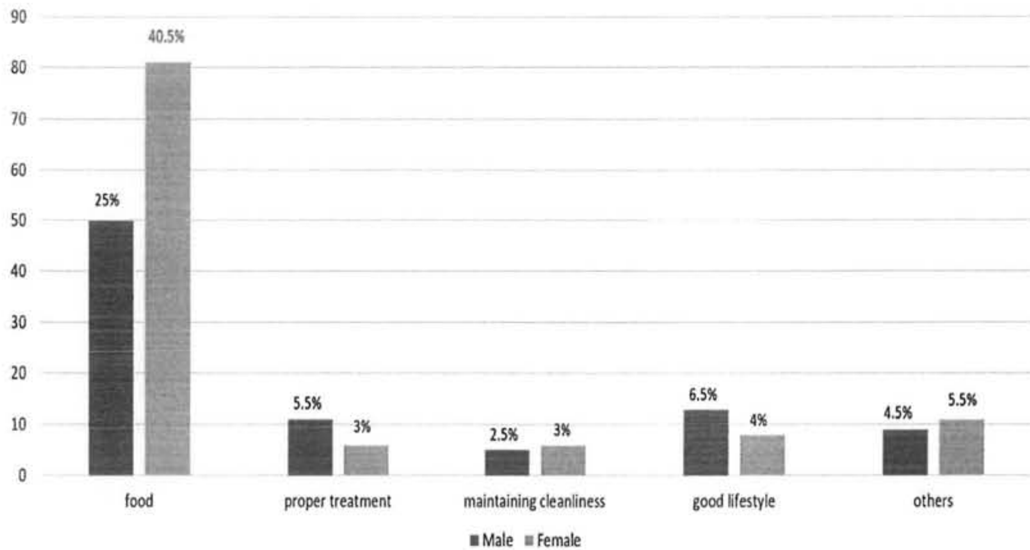

Figure 11. Controlling acne (N = 200)

Figure 11 illustrates, ways of controlling acne. 40.5% of females where as 25% of males reported that food (healthy, hygienic, balanced) can be helpful in controlling acne. 6.5% of males whereas 4% of females recommended good lifestyle (exercise, staying happy etc.) to control acne.

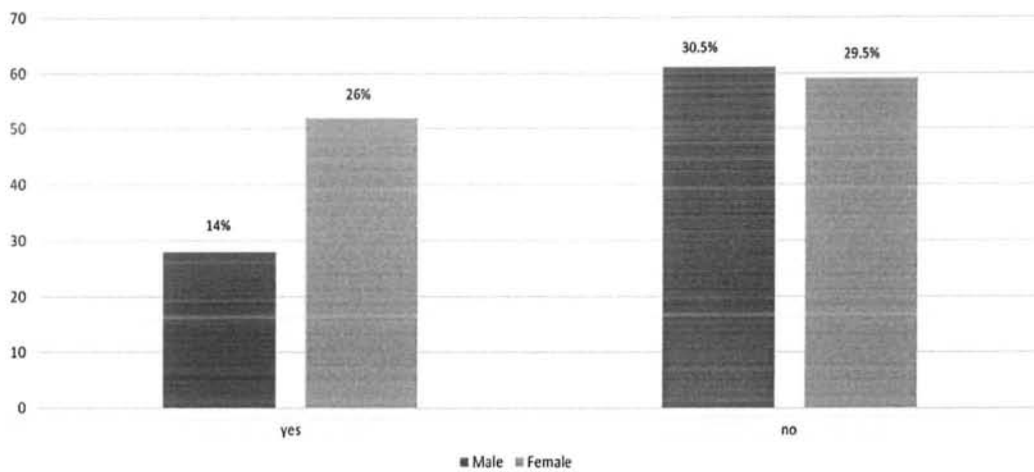

Figure 12. Use of herbal treatment to control acne *(N = 200)*

Figure 12 illustrates that 26 % of females whereas 14% of males use herbal treatment to control acne. 29.5% of females whereas 30.5% of males does not use herbal treatment to control acne.

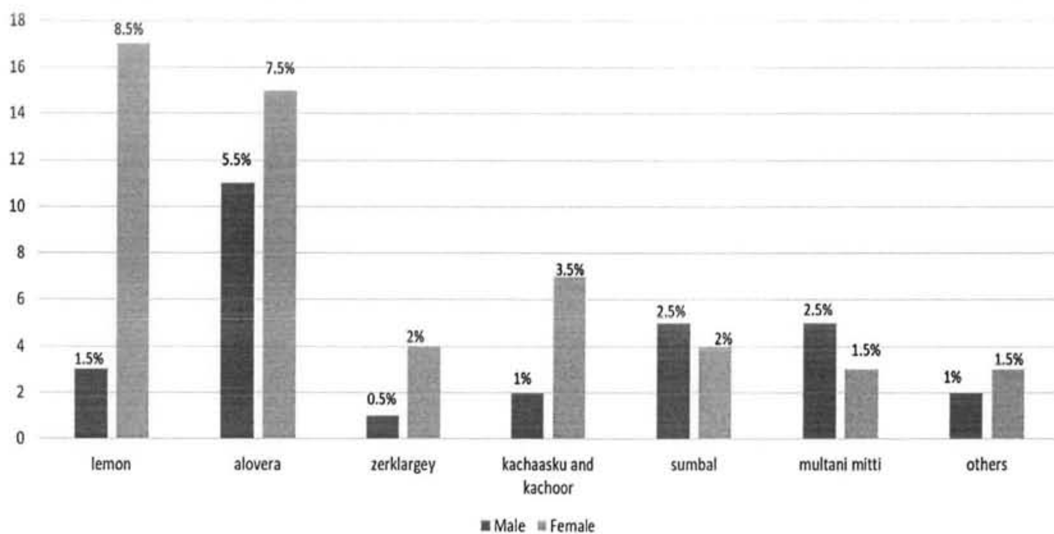

Figure 13. Herbal treatment for acne *(N = 200)*

Figure 13 illustrates different herbal treatments individuals use to control acne. 7.5% of females whereas 5.5% of males use alovera to control acne. Moreover, 8.5% of females and 1.5% of males use lemon to control acne.

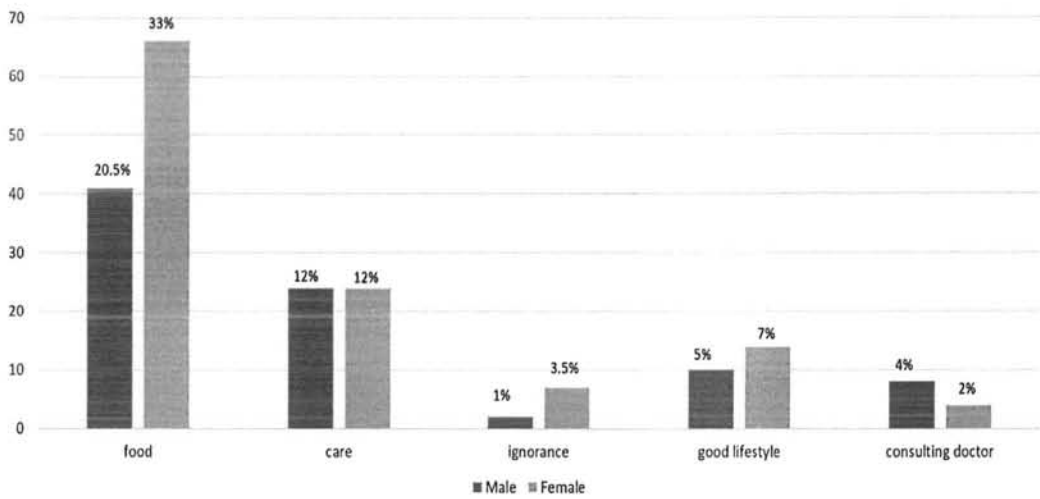

Figure 14. Lifestyle to control acne *(N = 200)*

Figure 14 illustrates recommended lifestyles to control acne. 33% of females and 20.5% of males reported that food (healthy, hygienic) can be helpful in controlling acne. 24% of males and females each suggested taking good care in order to control acne.

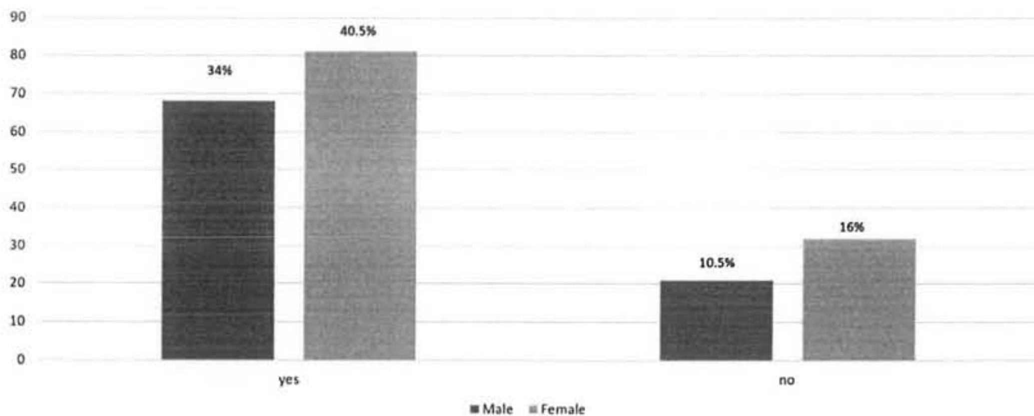

Figure 15. Role of genes in getting acne (N = 200)

Figure 15 illustrates those 40.5% females whereas 34% males reported that genes do play role in getting acne. 16% females whereas 10.5% males stated that genes does not play role in getting acne.

DISCUSSION

Chapter 4

DISCUSSION

The current study aimed to find out the relationship between Social Appearance Anxiety, Psychological Distress, Coping strategies and Dermatology-related Quality of Life among patients with acne vulgaris. It also aimed to explore the relationship of demographic variables (age, gender, marital status, education) with study variables. The major constructs of the study were assessed with dermatology life quality index (DLQI) (Finlay and Khan, 1994), social appearance anxiety scale (SAAS) (Hart et al., 2008), Kessler-10 (K-10) (Kessler, 1994) and brief COPE (Carver, 1997) respectively.

In the present study correlational research method was used. Data has been conducted by purposive and convenient sampling technique from people with acne vulgaris from different public and private sector hospitals as well as colleges and universities of Rawalpindi and Islamabad. The sample consisted of patients of Acne Vulgaris by convenience sampling. The age range was targeted from 16 to 25 years. In order to find out relationship between variables studied in the population, Pearson product moment correlation, linear regression, t-test, ANOVA was conducted along with mediation analysis.

To determine the psychometrics soundness of scale used in the study alpha reliabilities were computed. It was evident that reliability values of all the scales and their subscales in the present study were psychometrically sound ranging from .70 to .95 (see table 2) which shows scales are reliable and internally consistent. The values of skewness and kurtosis lies between absolute values of 2 therefore data can be considered as normally distributed.

Hypotheses were tested on the basis of existing literature the very first objective is to test the relationship between study variables. *Hypothesis 1* states that there will be positive relationship between social appearance anxiety, psychological distress and dermatology related quality of life (as high scores on dermatology life quality index indicate impaired quality of life). As acne vulgaris is the disease that mainly affects face of the individual. Face is the part of the body that is mostly noticed by others when one socializes or interacts with people around. Flaws and imperfections related to face make people anxious about their appearance, about how people will evaluate them on terms of their attractiveness. Therefore, they do not feel

good about their appearance, as a result they expression depression and anxiety thus leading to impaired quality of life (Unal, Emiroglu, & Cengiz, 2016).

Hypothesis 2 states that there will be a negative relationship between problem-focused coping, social appearance anxiety and dermatology related quality of life among patients with acne vulgaris. Problem focused coping refers to the coping strategy that involves use of approach coping responses. In the case of acne, problem focused coping refers to the treatment of acne vulgaris. Treatment of acne in most of the cases leads to decrease in psychological distress (depression and anxiety), thus improving quality of life of the individuals (Moosa & Munaf, 2012).

In *hypothesis 3* states that there will be positive relationship between active avoidant coping, social appearance anxiety and dermatology related quality of life in patients with acne vulgaris. Avoidant coping refers to the escape behavior. That escape is temporarily and sooner or later one has to come back to that situation. This type of coping which is not solution oriented and is transient, impairs the health and quality of life of the individuals and thus increases appearance related anxiety (Rodrnguez-Perez, Abreu-Sanchez, Rojas-Ocana, & del-Pino-Casado, 2017).

Further findings indicated that psychological distress mediates the relationship between social appearance anxiety and dermatology related quality of life thereby providing evidence to 4th social appearance anxiety as the strongest predictor of dermatology related quality of life and in accordance with early literature. Results of mediated analysis showed that psychological distress has indirect negative (as high scores on dermatology life quality index indicate poor quality of life) effect on quality of life of people with acne vulgaris. These findings are consistent with the past literature which shows that psychological distress was found to be the strongest mediator (Beck, Palic, Andersen, & Roenholt, 2014). Studies also found psychological distress as the significant mediator between health-related quality of life and coping which means that psychological distress affect the way coping strategies affect health related quality of life (Pereira-Morales, Adan, Lopez-Leon, & Forero, 2018). Further through regression analysis it was also found out that active avoidance coping will positively predict dermatology related quality of life. Prior researchers have found that active avoidance coping is a predictor of health related quality of life (Aarstad, Aarstad, & Olofsson, 2008). As, quality of life in patients with chronic diseases is measured in terms of health related quality of life (Alonso, at el., 2004) and as acne vulgaris is a chronic skin disease so we can relate the findings,

concluding that active avoidance coping is a predictor of dermatology related quality of life.

It was hypothesized that Females with acne vulgaris will score higher on social appearance anxiety; psychological distress and dermatology related quality of life as compared to males with acne vulgaris. Through independent sample t-test analysis the results showed that females scored higher on social appearance anxiety and dermatology related quality of life (as high scores indicate poor quality of life) as compared to males. Moreover, results showed that there is no significant difference among males and females related to psychological distress. Negligible researches show difference among gender for social appearance anxiety among people with acne vulgaris. Social appearance anxiety is considered as one of the components of the social anxiety (Osman & Bozgeyikli, 2015). But it can be seen logically through different factors we discussed above related to appearance, we already know that females are more concerned about their appearance, appreciation from others on their looks so that is why they showed high scored on the particular scale measuring social appearance anxiety. That is the concern with esthetics and physical appearance is a feminine feature in our culture and the esthetically unpleasant lesions of skin conditions disturb women a great deal (Balint, 1993). Moreover, Studies have found that compared with men, women are more likely to have social anxiety (Asher & Aderka, 2018).

Studies evaluation quality of life through dermatology life quality index indicate that Females had higher scores for painful/stinging skin, social/leisure activity affected, problem with work/study, and problem created with friends/relatives as compared to males. As a result females showed more impaired dermatology related quality of life as compared to males (Batra et al., 2014; Benchikh, Abarji, & Nani, 2016). Regarding gender difference for psychological distress, prior researches showed that men and women have almost same level of psychological distress that is increased with age due to increase in expectations, responsibilities and work at office and home (Drapeau, Marchand, & Forest, 2014).

Results have found that psychological distress among adults (20 to 25 years) was significantly higher than adolescents (16 to 19 years) (*see table 7*). It has been observed that young adulthood is the phase in life characterized by profound transitions and changes. The quest for one's own identity and the search for a way to stand on one's own feet go along with feelings of uncertainty and anxiety. Schraedley

et al. (1999) found that among adolescents the prevalence of mental health problems increase with increasing age. Young people are confronted with many new experiences, expectations, potential unemployment, and responsibilities which may result in increased stress and along this way affect mental health as compared to adolescents. Along with this acne is considered typically to be a feature in adolescents and it is believed that with increase in age it will disappear. But when it does not disappears as expected it becomes and additional stressor and might lead to feelings of distress (Van Droogenbroeck, Spruyt, & Keppens, 2018).

Moreover, ANOVA showed that as acne severity increases in patients, their dermatology related quality of life becomes more impaired. As, acne becomes more severe, appearance of the individual is effected accordingly thus, increasing anxiety related to appearance, depression leading to impaired quality of life effecting social activities, daily activities of individual (Tashakori, Nematpour, Riyahi, Rassai, Hesam, & Tophighzadeh, 2016). Literature also proved that moderate-to-severe Acne vulgaris, as evaluated by a medical provider, correlated to reduced quality of life (Abdel-Hafez et al., 2009; Hosthota et al., 2016; Lasek & Chren, 1998). Vilar et al. (2015) found that patients with worse acne had a more impaired quality of life.

Graphs were used for efficient representation of qualitative part of data set comprising of different questions related to Acne vulgaris. In the present study respondents overwhelmingly believed that food could influence acne. 22% females and 17.5% males reported that food plays a vital role in getting acne *(see figure 2)*. This is a popular, long-held belief, as anecdotally, patients sometimes make the connection between greasy foods and increased oil production on the face (Assaedi at el, 2018). Great indications, nonetheless, supports a relationship between a high glycemic index (GI) diet and acne (Spencer, Ferdowsian, & Barnard, 2009).

In *figure 3,* 38.5 % of the individuals presenting higher percentage showed that they got information about acne from social media (internet), out of which 22.5% were females whereas 16% were males. It can be seen that nowadays most of the time of people especially teenagers is occupied in surfing on the internet and social media. We can say that the increasing pervasiveness of the Internet in the lives of adolescents is by now well established (e.g. Roberts, Foehr, Rideout, & Brodie, 1999), due to which they try to dig details of every emerging problem from internet. Moreover, as women are more sensitive about how they look and appear to others therefore they scored higher on the particular category.

53% of females and 44.5% of males reported that teenage is the age to get acne (*see figure 4*). Moreover, it has also been reported that about 48.5% of females and 42% of males got acne in their teenage *(see figure 5).* It has been enlightened in the literature that women experience acne at higher rates than their male counterparts across all age groups 20 years and older (Tan, 2004). Moreover it has also been mentioned in prior researches that more adolescents (13 to 18yrs) have been affected by acne (Yang at el, 2014). Puberty (teenage) is when most of the individuals get acne but higher rates of ace within females are due to medical conditions such as polycystic ovary syndrome (PCO's), as well as sexual menstruation (Kamangar, 2012).

It has been reported by 19% of females and 15% of males that acne gets worse due to different foods that people have in their diet (*see figure 6*). Researches have shown that a high glycemic load diet, dairy food intake, high fat diet, and iodine in foods appear to play a role in acne exacerbation. As, Hyperinsulinemia resulting from high glycemic load diet would also increase circulating androgens and decrease sex hormone binding protein, leading to increased sebum synthesis, which was crucial in acne development therefore, irregular dietary patterns were found to aggravate acne (Jung et al., 2010).

48% females and 36% males reported that stress do cause acne among individuals (*see figure 7*) Evidences have proved that psychological stress was associated with a significant higher rate of acne. Moreover, several factors such as gender, body mass index, and stress were found to be associated with acne formation (Al-Kubaisy, Abdullah, Kahn, & Zia, 2014). Moreover, it has been seen that Women have more daily stress, with more chronic problems and conflicts and daily demands and frustrations as compared to men therefore, they experience more stress than men (Matud, 2004).

In *figure 8* it has been observed that 50% of females and 38% of males reported that makeup (cosmetics) are the cause of acne. It is very clear and we all know that women use more makeup products on daily basis as compared to men. Promote there are diverse variables identified with restorative items, that incorporate bioaccumulation of hurtful synthetics and metals utilized in beautifying agents which after some time has been related with growth, regenerative and formative issue, contact dermatitis, male pattern baldness, lung harm, maturing, skin malady and response, hypersensitivities, and harm of nails (Okereke, Udebuani, Ezeji, Obasi & Nnoli, 2015)

In *Figure 10* it has been observed that according to 44% of females and 36% of males, fairness creams do cause acne. As women are more conscious about their appearance and therefore the use of skin lightening products is common among female and some of these products can cause skin problems such as skin peeling, acne, and itching (Rusmadi, Ismail, Norkhadijah & Praveena, 2015). A subsequent study found that levels of mercury in many popular face creams are increasing over time (Agrawal & Sharma, 2017). Side effects of skin fairness products containing hydroquinone, steroids, or mercury can include irritation, inflammation, thinning of skin, scarring, abnormalities among newborn babies if used during pregnancy and breast-feeding, and kidney, liver, or nerve damage (Iyanda, Anetor, & Adeniyi, 2011; Shroff, Diedrichs, & Craddock, 2018).

40.5% of females and 25% of males reported that healthy (appropriate) food can be helpful in controlling acne. (*see figure 11*). As mentioned earlier while discussing cause of acne food was inappropriate was found to be main cause of acne. So, when we talk about controlling acne, our mind automatically switches to the fact that appropriate and healthy food can be helpful in controlling acne. Moreover, observing areas where people use fresh fruits, vegetables, and lean proteins in diet diet, acne does not prevail among that population (Cordain et al., 2002)

40.5% of female and 34% of males reported that genes do play role in having acne (*see figure 15*). Most of the individuals when they observe their parents and specifically siblings and then they themselves getting acne at some stage or age of their life then they make this belief rigid in their mind that acne runs in family due to genetic factors. If we talk about biological point of view, it can be seen that sebum excretion (that produces acne) is influenced by genetic factors (Walton, Wyatt & Cunliffe, 1988). While talking about age to get acne, it has been discussed that Polycystic Ovary Syndrome and sexual menstruation is the leading cause among females to get acne, so therefore within the present study more females noticing their mother and sisters getting acne reported that genes play important role in getting the disease (Begum, Hossain, Rahman, & Banu, 2017).

It can be concluded from above mentioned qualitative phase of the research that different perceptions related to causes of acne exist within the study population. Individuals have different myths and perceptions related to food, stress, makeup products etc. related to acne. Moreover, we can also conclude from the responses that

genes and stress play vital role in getting acne and developing it worse. Further, an interesting finding shows that people do use variety of herbal treatments to cure acne.

Conclusion

Present study explored the relationship between social appearance anxiety, psychological distress, coping strategies and dermatology-related quality of life among patients with acne vulgaris. Findings of the present study revealed that presence of Acne Vulgaris produces social appearance anxiety and psychological distress as a result of which dermatology related quality of life of individuals is impaired.

Limitation and Suggestions

There are certain limitations of the study they may restrict generalizability of the findings and some suggestions for future studies to improve and develop further information in understanding the chronic disease i.e. Acne Vulgaris.

Participants of the present study were approached through convenient sampling from the area of Rawalpindi and Islamabad. Due to this sampling technique, only specific areas were targeted as this research is based on the sample of twin cities. Therefore it cannot be effectively generalized. For better generalization of the findings data can be collected from larger sample from different areas.

Moreover, use of self-report measures results in bias responses, as socially acceptable acquiescence response style. So in future researchers, longitudinal or mixed method approach to explore psychological problems prevailing among individuals with Acne Vulgaris.

Translations into Urdu language and adaptation of scales used in the present study are suggested to make to make the instrument more indigenous for enhancing the validity and reliability of measures so that cultural appropriateness can be tackled during research. Moreover, uneducated sample was not included in the research therefore; studies should be conducted on such population as well. Further, research should be made to understand cultural differences as well.

Implications

The study makes comprehensible relationship between social appearance anxiety, psychological distress, coping strategies and dermatology-related quality of life among patients with acne vulgaris and adds to the above mentioned gap in the literature regarding psychological distress, social appearance anxiety and dermatology-related quality of life among individuals with Acne Vulgaris.

Present study also has theoretical implication as it supports the already existing literature. Findings of the present study show implication in health. Prevention programs can be designed to overcome psychological sufferings of people with Acne Vulgaris. Moreover, variables such as religious coping should receive more attention to identify predictors of quality of life and other psychological issues. It should be important to discuss supportive aspects of religiousness in order to help patient to effectively cope up from their intensified psychological sufferings.

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APPENDICES

Appendix-A

Informed Consent

میں قومی ادارہ نفسیات " قائداعظم یونیورسٹی" اسلام آباد میں ایم۔ایس۔سی کی طالبہ ہوں۔ میری یہ تحقیق ایم۔ایس۔سی پروگرام کا حصہ ہے۔ تحقیق کی رو سے کیل مہاسے/د
مریض کی ذہنی کیفیت اور معیار زندگی پر اثر انداز ہوتے ہیں۔اس سلسلے میں ایک تحقیق کی جارہی ہے۔جس کے لیے آپ کا تعاون درکار ہے۔

اگر آپ اس تحقیق میں حصہ لینا چاہتے ہیں تو آپ کو چار سوالنامے دیئے جائیں گئے۔جس میں سے تین اُردو اور ایک انگریزی میں ہے۔ ہر سوالنامے کو دی گئی ہدایات کے م
آپ کو پُر کرنا ہوگا۔اس میں تقریباً 10 سے 15 منٹ درکار ہوں گئے۔ان سوالناموں کو آپ نے اپنا نام لکھے بغیر پُر کرنا ہوگا۔

آپ کو سوالنامہ پُر کرتے وقت کچھ پوچھنا ہوتو آپ بلا جھجک پوچھ سکتے ہیں۔ ہمارے لیے یہ بہت اہم ہے کہ آپ کے جو احساسات ہیں بالکل وہی بیان کریں۔

آپ سے لی گئی معلومات صرف تحقیقی مقاصد کے لیے استعمال کی جائے گی۔آپ کے اس تعاون پر ہم آپ کے شکرگزار ہیں۔

____

دستخط

ذاتی کوائف

عمر: ________ سال ________

جنس: لڑکی ________ لڑکا ________

تعلیم: ________

پیشہ: ________

ازدواجی حیثیت: ________

آپ کے خیال میں کیل مہاسوں/ دانوں کی وجہ کیا ہے؟ ________

آپ کو کیل مہاسوں/ دانوں کی معلومات کہاں سے ملی؟ ________

آپ کے خیال میں کیل مہاسے/ دانے کس عمر میں ہوتے ہیں؟ ________

کیل مہاسے/ دانے آپ کو کس عمر میں ہوئے؟ ________

کیل مہاسے/ دانے کس وجہ سے ہوتے ہیں؟ ________

کن وجوہات کی بنا پر کیل مہاسے/ دانے بڑھ جاتے ہیں؟ ________

آپکے خیال میں کن لوگوں کو کیل مہاسے/ دانے ہوتے ہیں؟ ________

آپکے خیال میں کیا پریشانی یا ذہنی دباؤ سے کیل مہاسے/ دانے ہوتے ہیں؟ ________

آپکے خیال میں کیا میک اپ کیل مہاسے/ دانوں کی وجہ بن سکتا ہے؟ ________

کیا آپ نے کوئی فیرنس کریم استعمال کی ہے یا کرتے/کرتی ہیں؟ ________

آپکے خیال میں کیا فیرنس کریم استعمال کرنے سے کیل مہاسے/ دانے ہوتے ہیں؟ ________

آپکے خیال میں کیل مہاسے/ دانوں پر کیسے قابو پایا جا سکتا ہے؟ ________

کیا آپ نے کیل مہاسے/ دانوں کے لیے کسی جڑی بوٹیوں کا استعمال کیا ہے؟ ________

اگر ہاں،

کونسا ایسا علاج استعمال کیا ہے؟ وضاحت کریں۔ ________

کیل مہاسے/ دانوں کو قابو کرنے کے لیے آپ کیا طرز زندگی تجویز کریں گے۔ ________

Appendix - C

Instructions: Please indicate how characteristic each statement is of you, using the response scale provided. Be sure not to miss any item.

Statements	Not at all 1	A little 2	Sometimes 3	A lot 4	Extremely 5
I feel comfortable with the way I appear to others.					
I feel nervous when having my picture taken.					
I get tense when it is obvious people are looking at me.					
I am concerned people would not like me because of the way I look.					
I worry that others talk about flaws in my appearance when I am not around.					
I am concerned people will find me unappealing because of my appearance.					
I am afraid that people find me unattractive.					
I worry that my appearance will make my life more difficult for me.					
I am concerned that I have missed out on opportunities because of my appearance.					
I get nervous when talking to people because of the way I look.					
I feel anxious when other people say something about my appearance.					
I am frequently afraid I would not meet others' standards of how I should look.					
I worry people will judge the way I look negatively.					
I am uncomfortable when I think others are noticing flaws in my appearance.					
I worry that a romantic partner will/would leave me because of my appearance.					
I am concerned that people think I am not good looking.					

Instructions: Please indicate how characteristic each statement is of you, using the response scale provided. Be sure not to miss any item.

No.	Statements	Not at all 1	A little 2	Sometimes 3	A lot 4	Extremely 5
1	I feel comfortable with the way I appear to others.					
2	I feel nervous when having my picture taken					
3	I get tense when it is obvious people are looking at me.					
4	I am concerned people would not like me because of the way I look.					
5	I worry that others talk about flaws in my appearance when I am not around.					
6	I am concerned people will find me unappealing because of my appearance.					
7	I am afraid that people find me unattractive.					
8	I worry that my appearance will make my life more difficult for me.					
9	I am concerned that I have missed out on opportunities because of my appearance.					
10	I get nervous when talking to people because of the way I look.					
11	I feel anxious when other people say something about my appearance.					
12	I am frequently afraid I would not meet others' standards of how I should look.					
13	I worry people will judge the way I look negatively.					
14	I am uncomfortable when I think others are noticing flaws in my appearance.					
15	I worry that a romantic partner will/would leave me because of my appearance.					
16	I am concerned that people think I am not good looking.					

Appendix-D

ہدایات:

نیچے دیئے گئے اس سوالات میں آپ سے یہ پوچھا گیا ہے کہ آپ پچھلے چار ہفتوں میں کیسا محسوس کرتے رہے ہیں۔ ہر سوال کے لیے جواب کے نیچے کے دائرہ پر
لگائیں۔ جو اس مدت کو سب سے بہتر طور پر بیان کرتا ہو جس میں آپ نے اس طرح محسوس کیا تھا۔

نمبر شمار	بیانات	کبھی نہیں	بہت کم	کبھی کبھی	اکثر	ہمیش
1	پچھلے چار ہفتوں میں، آپ نے تقریباً کتنی بار بلا کسی معقول وجہ کے تھکان محسوس کی تھی؟					
2	پچھلے چار ہفتوں میں، آپ نے تقریباً کتنی بار گھبراہٹ محسوس کی تھی؟					
3	پچھلے چار ہفتوں میں، آپ نے تقریباً کتنی بار گھبراہٹ محسوس کی تھی کہ کوئی بھی چیز آپ کو پر سکون نہیں کر سکتی تھی؟					
4	پچھلے چار ہفتوں میں، آپ نے تقریباً کتنی بار نا اُمید محسوس کیا تھا؟					
5	پچھلے چار ہفتوں میں، آپ نے تقریباً کتنی بار بے چین یا نے سکون محسوس کیا تھا؟					
6	پچھلے چار ہفتوں میں، آپ نے تقریباً کتنی بار اتنا بے چین محسوس کیا تھا کہ آپ ٹیک کر نہیں بیٹھ سکتے تھے؟					
7	پچھلے چار ہفتوں میں، آپ نے تقریباً کتنی بار ڈپریشن (افسردگی) محسوس کی تھی؟					
8	پچھلے چار ہفتوں میں، آپ نے تقریباً کتنی بار یہ محسوس کیا تھا کہ ہر کام بہت مشکل ہے؟					
9	پچھلے چار ہفتوں میں، آپ نے تقریباً کتنی بار اتنا زیادہ غمگین محسوس کیا تھا کہ کوئی بھی چیز آپ کو خوش نہیں کر سکتی تھی۔					
10	پچھلے چار ہفتوں میں، آپ نے تقریباً کتنی بار خود کو بے وقعت محسوس کیا تھا؟					

Appendix-E

اس سوال نامہ کا مقصد یہ معلوم کرنا ہے کہ آپ کی جلدی تکلیف نے پچھلے ہفتے کے دوران آپ کی زندگی کو کس قدر متاثر کیا ہے۔ برائے مہربانی مطلوبہ جواب کے آ
( ) لگائیں۔

1- پچھلے ہفتے کے دوران آپ کی جلد میں کتنی خارش، دُکھن، درد یا جلن رہی؟

☐ بہت زیادہ ☐ کافی ☐ تھوڑی ☐ بالکل نہیں

2- پچھلے ہفتے کے دوران آپ اپنی جلد کی وجہ سے کتنے پریشان یا فکرمند رہے؟

☐ بہت زیادہ ☐ کافی ☐ تھوڑی ☐ بالکل نہیں

3- پچھلے ہفتے کے دوران آپ کی جلد آپ کی خریداری، گھر یا باغیچے کی نگہداشت میں کس قدر رکاوٹ کا سبب بنی؟

☐ بہت زیادہ ☐ کافی ☐ تھوڑی ☐ بالکل نہیں ☐ غیر متعلقہ

4- پچھلے ہفتے کے دوران آپ کی جلد آپ کے لباس کے انتخاب میں کس قدر مسائل کا سبب بنی؟

☐ بہت زیادہ ☐ کافی ☐ تھوڑی ☐ بالکل نہیں ☐ غیر متعلقہ

5- پچھلے ہفتے کے دوران آپ کی جلد نے آپ کی معاشرتی یا فارغ وقت کے معمولات کو کس قدر متاثر کیا؟

☐ بہت زیادہ ☐ کافی ☐ تھوڑی ☐ بالکل نہیں ☐ غیر متعلقہ

6- پچھلے ہفتے کے دوران آپ کی جلد کھیل کود میں کس قدر رکاوٹ کا سبب بنی؟

☐ بہت زیادہ ☐ کافی ☐ تھوڑی ☐ بالکل نہیں ☐ غیر متعلقہ

7- کیا پچھلے ہفتے کے دوران آپ اپنی جلد کی وجہ سے کام یا پڑھائی بالکل نہ کر سکے؟ اگر نہیں تو پچھلے ہفتے کے دوران آپ کی جلد کام یا پڑھائی میں کس قدر مسائل کا سبب بنی؟

☐ ہاں ☐ نہیں ☐ غیر متعلقہ

8- پچھلے ہفتے کے دوران آپ کی جلد شریک حیات، قریبی دوستوں یا رشتہ داروں کے ساتھ تعلقات میں کس قدر مسائل کا سبب بنی؟

☐ بہت زیادہ ☐ کافی ☐ تھوڑی ☐ بالکل نہیں ☐ غیر متعلقہ

9- پچھلے ہفتے کے دوران آپ کی جلد آپ کے لیے کس قدر ازدواجی/جنسی مسائل کا سبب بنی؟

☐ بہت زیادہ ☐ کافی ☐ تھوڑی ☐ بالکل نہیں ☐ غیر متعلقہ

10- پچھلے ہفتے کے دوران آپ کی جلد تکلیف کا علاج آپ کے لیے کس قدر مسائل کا سبب بنا۔ مثال کے طور پر گھر یا کپڑوں کا گندہ ہونا یا وقت کا ضیاع ہونا؟

☐ بہت زیادہ ☐ کافی ☐ تھوڑی ☐ بالکل نہیں ☐ غیر متعلقہ

Appendix-F

درج ذیل بیانات ان تمام طریقوں کے متعلق ہیں جو آپ اپنی زندگی میں ذہنی دباؤ سے نمٹنے کے لیے استعمال کرتے رہے ہیں۔ ہر بیان ذہنی دباؤ سے نمٹنے کے ایک
خاص طریقے کی نشاندہی کرتا ہے۔ میں یہ جاننا چاہتی ہوں کہ ہر بیان جس طریقے کی نشاندہی کرتا ہے آپ اس کو کس حد تک استعمال کرتے رہے ہیں۔ (کتنا زیادہ یا کتنی دفعہ)
اس بنیاد پر جواب نہ دیں کہ طریقہ مفید ہے یا نہیں۔ صرف اس بنیاد پر جواب دیں کہ آپ نے وہ طریقہ اختیار کیا یا نہیں۔ ہر بیان کے سامنے متبادل جوابی صورتوں میں سے کسی ا
کا انتخاب اس خانے میں نشان (✓) لگا کریں۔

نمبر شمار	بیانات	کبھی نہیں	بہت کم	کبھی کبھی	بہت زیاد
1	میں اپنے ذہن سے کچھ چیزوں کو نکالنے کے لیے دوسرے کاموں یا مشاغل کی طرف متوجہ ہو جاتا / جاتی رہی ہوں.				
2	میں جس صورتحال میں ہوں اس سے نکلنے کے لیے میں اپنی تمام کوششیں صرف کرتا/کرتی رہی ہوں۔				
3	میں اپنے آپ سے کہتا/کہتی ہوں کہ یہ حقیقت نہیں ہے۔				
4	میں بہتر محسوس کرنے کے لیے نشہ آور ادویات استعمال کرتا/کرتی رہی ہوں۔				
5	مجھے دوسروں سے جذباتی سہارا ملتا رہا ہے۔				
6	میں اس صورتحال کو بہتر بنانے کے کوشش میں اقدامات کرتا/کرتی رہی ہوں۔				
7	میں صورتحال سے نمٹنے کی کوشش ترک کر دیتا/دیتی رہی ہوں۔				
8	میں یہ یقین کرنے سے انکار کرتا/کرتی رہی ہوں کہ ایسا ہو چکا ہے۔				
9	میں ایسی باتیں کہتا/کہتی رہی ہوں جن سے میرے ناخوشگوار جذبات میں کمی آسکے۔				
10	میں دوسروں سے مشورہ اور مدد حاصل کرتا/کرتی رہی ہوں۔				
11	میں اس صورتحال سے نمٹنے کے لیے سکون آور ادویات استعمال کرتا/کرتی رہی ہوں۔				
12	میں اس صورتحال کو مختلف پہلوؤں سے دیکھنے کی کوشش کرتا/کرتی رہی ہوں تاکہ یہ زیادہ مثبت نظر آئے۔				
13	میں اپنے آپ پر تنقید کرتا/کرتی رہی ہوں۔				
14	میں صورتحال کے بارے میں کچھ کرنے کے لیے ایک حکمت عملی تلاش کرنے کی کوشش کرتا/کرتی رہی ہوں۔				
15	میں کسی دوسرے سے آرام اور ہم خیالی حاصل کرتا/کرتی رہی ہوں۔				
16	میں اس صورتحال پر قابو پانے کی کوشش ترک کرتا/کرتی رہی ہوں۔				
17	جو کچھ ہو رہا ہے میں اس میں بہت کم بہتر پہلو دیکھنے کی کوشش کرتا/کرتی رہی ہوں۔				
18	میں اس صورتحال کے بارے میں مزاح پیدا کرتا/کرتی رہی ہوں۔				
19	میں اس صورتحال کے بارے میں کم سوچنے کے لیے کچھ نہ کچھ کرتا/کرتی رہی ہوں جیسے فلم کے لیے جانا، ٹی وی دیکھنا، پڑھنا، دن میں خواب دیکھنا، سونا یا خریداری کرنا۔				

نمبر شمار	بیانات	کبھی نہیں	بہت کم	کبھی کبھی	بہت زیاد
20	میں اس حقیقت کو تسلیم کرتا/کرتی رہی ہوں کہ ایسا رُنما ہو چکا ہے۔				
21	میں اپنے منفی جذبات کا اظہار کرتا/کرتی رہی ہوں۔				
22	میں اپنے مذہب یا روحانی عقائد میں سکون تلاش کرنے کی کوشش کرتا/کرتی رہی ہوں۔				
23	صورتحال کے متعلق کچھ کرنے کے لیے میں دوسرے لوگوں سے مدد اور مشورہ لینے کی کوشش کرتا/کرتی رہی ہوں۔				
24	میں اس صورتحال کے ساتھ گزارہ کرنا سیکھتا/سیکھتی رہی ہوں۔				
25	میں اس بارے میں بہت غور کرتا/کرتی رہی ہوں کہ کیا اقدامات لوں۔				
26	جو کچھ ہوا اس کے لیے میں اپنے آپ کو قصوروار ٹھہراتا/ٹھہراتی رہی ہوں۔				
27	میں عبادت اور دُعا کرتا/کرتی رہی ہوں۔				
28	میں حالات کو مذاق میں اُڑاتا/اُڑاتی رہی ہوں۔				

Appendix - G

GLOBAL ASSESSMENT SCALE

0- Normal, clear skin with no evidence of acne vulgaris.

1- Skin is almost clear; some non-inflammatory lesions present, with some non-inflamed papules, papules must be developing and may be showing color, although not yet pink red.

2- Some non-inflammatory lesions are present, with a few inflammatory lesions, papules/pustules only, but no nodulo-cysytic lesions.

3- Non-inflammatory lesions predominate, with multiple inflammatory lesions evident, several to many comedones and papules/pustules, and there may or may not be one small nodulo-cystic lesion in a certain area.

4- Inflammatory lesion are more apparent, many comedones and papules pustules, there may or may not be a few nodulo-cystic lesions

5- Highly inflammatory lesions predominate the area with a variable number of comedones, many papules/pustules and nodulo-cystic lesions.

fatima zakir <fatimazakir92@gmail.com>

Permission to use Social Appearance Anxiety Scale

8 messages

fatima zakir <fatimazakir92@gmail.com> Sun, Apr 8, 2018 at 1:40 PM
To: trevor.hart@ryerson.ca

Dear Sir/Madam,

I am a research student at National Institute of Psychology, Quaid-I Azam University Pakistan. I am conducting a research on Social Appearance Anxiety and Quality of life among patient with dermatological problems. I came across the scale titled "Social Appearance Anxiety Scale". As per the research ethics i am supposed to seek formal permission before using this scale for research purpose.

If allowed i will use it only for my research work and can share my findings with you as well if needed.
Looking for a positive response from your side.

Regards,

Fatima Zakir

Trevor Hart <trevor.hart@psych.ryerson.ca> Mon, Apr 9, 2018 at 12:30 AM
To: fatima zakir <fatimazakir92@gmail.com>, "trevor.hart@ryerson.ca" <trevor.hart@ryerson.ca>

Hello Fatima,

You have my permission to use the scale. The total score is calculated by summing the items, including the reverse-coded item #1.

Best wishes,

Trevor A. Hart, Ph.D, C.Psych

OHTN Research Chair in Gay Men's Health

Director, HIV Prevention Lab

Professor

Department of Psychology

Ryerson University

8th Floor, Jorgenson Hall

350 Victoria Street

Toronto, ON M5B 2K3

416-979-5000 ext. 1-2179

From: fatima zakir [mailto:fatimazakir92@gmail.com]
Sent: April 8, 2018 4:40 AM
To: trevor.hart@ryerson.ca
Subject: Permission to use Social Appearance Anxiety Scale

[Quoted text hidden]

---

fatima zakir <fatimazakir92@gmail.com> Mon, Apr 9, 2018 at 10:03 AM
To: Trevor Hart <trevor.hart@psych.ryerson.ca>

Thank you!
I will be grateful if you will send me the urdu version of social appearence anxiety scale along with it's details regarding scoring. I couldn't find it on internet.

Regards

Fatima Zakir
[Quoted text hidden]

Trevor Hart <trevor.hart@psych.ryerson.ca> Mon, Apr 9, 2018 at 7:54 PM
To: fatima zakir <fatimazakir92@gmail.com>

Hello Fatima,

I have not validated the scale in Urdu, so don't have this information. I did provide the scoring below.

Best wishes,

Trevor A. Hart, Ph.D, CPsych
OHTN Applied Research Chair in Gay and Bisexual Men's Health
Director, HIV Prevention Lab
Professor
Department of Psychology
Ryerson University
350 Victoria St.
Toronto, ON M5B2K2
416-979-5000 ext. 1-2179
[Quoted text hidden]

---

fatima zakir <fatimazakir92@gmail.com> Mon, Apr 9, 2018 at 10:01 PM
To: Trevor Hart <trevor.hart@psych.ryerson.ca>

Thank you for the clarification. Can you please kindly send me the English version of the scale. I will be grateful to you.

Regards

Fatima Zakir
[Quoted text hidden]

---

fatima zakir <fatimazakir92@gmail.com> Tue, Apr 10, 2018 at 12:21 PM
To: rida musharraf <ridamusharraf7570@gmail.com>

Forwarded conversation

Subject: **Permission to use Social Appearance Anxiety Scale**

From: **fatima zakir** <fatimazakir92@gmail.com>

Date: Sun, Apr 8, 2018 at 1:40 PM
To: trevor.hart@ryerson.ca

Dear Sir/Madam,

I am a research student at National Institute of Psychology, Quaid-I Azam University Pakistan. I am conducting a research on Social Appearance Anxiety and Quality of life among patient with dermatological problems. I came across the scale titled "Social Appearance Anxiety Scale". As per the research ethics i am supposed to seek formal permission before using this scale for research purpose.

If allowed i will use it only for my research work and can share my findings with you as well if needed.
Looking for a positive response from your side.

Regards,

Fatima Zakir

From: **Trevor Hart** <trevor.hart@psych.ryerson.ca>
Date: Mon, Apr 9, 2018 at 12:30 AM
To: fatima zakir <fatimazakir92@gmail.com>, "trevor.hart@ryerson.ca" <trevor.hart@ryerson.ca>

Hello Fatima,

You have my permission to use the scale. The total score is calculated by summing the items, including the reverse-coded item #1.

Best wishes,

Trevor A. Hart, Ph.D, C.Psych

OHTN Research Chair in Gay Men's Health

Director, HIV Prevention Lab

Professor

Department of Psychology

Ryerson University

8th Floor, Jorgenson Hall

350 Victoria Street

Toronto, ON M5B 2K3

416-979-5000 ext. 1-2179

From: fatima zakir [mailto:fatimazakir92@gmail.com]
Sent: April 8, 2018 4:40 AM

To: trevor.hart@ryerson.ca
Subject: Permission to use Social Appearance Anxiety Scale

From: **fatima zakir** <fatimazakir92@gmail.com>
Date: Mon, Apr 9, 2018 at 10:03 AM
To: Trevor Hart <trevor.hart@psych.ryerson.ca>

Thank you!
I will be grateful if you will send me the urdu version of social appearence anxiety scale along with it's details regarding scoring. I couldn't find it on internet.

Regards

Fatima Zakir

From: **Trevor Hart** <trevor.hart@psych.ryerson.ca>
Date: Mon, Apr 9, 2018 at 7:54 PM
To: fatima zakir <fatimazakir92@gmail.com>

Hello Fatima,

I have not validated the scale in Urdu, so don't have this information. I did provide the scoring below.

Best wishes,

Trevor A. Hart, Ph.D, CPsych
OHTN Applied Research Chair in Gay and Bisexual Men's Health
Director, HIV Prevention Lab
Professor
Department of Psychology
Ryerson University
350 Victoria St.
Toronto, ON M5B2K2
416-979-5000 ext. 1-2179

From: **fatima zakir** <fatimazakir92@gmail.com>
Date: Mon, Apr 9, 2018 at 10:01 PM
To: Trevor Hart <trevor.hart@psych.ryerson.ca>

Thank you for the clarification. Can you please kindly send me the English version of the scale. I will be grateful to you.

Regards

Fatima Zakir

Trevor Hart <trevor.hart@psych.ryerson.ca> Tue, Apr 10, 2018 at 8:13 PM
To: fatima zakir <fatimazakir92@gmail.com>

Hello Fatima,

Here is the scale and some articles on its validation.

Best wishes,

Trevor A. Hart, Ph.D, C.Psych
Ontario HIV Treatment Network Applied HIV Research Chair in Gay and Bisexual Men's Health
Professor and Director, HIV Prevention Lab

Department of Psychology
Ryerson University
8th Floor, Jorgenson Hall
350 Victoria Street
Toronto, ON M5B 2K3
416-979-5000 ext. 1-2179

From: fatima zakir [mailto:fatimazakir92@gmail.com]
Sent: April-09-18 1:02 PM
To: Trevor Hart
Subject: Re: Permission to use Social Appearance Anxiety Scale

[Quoted text hidden]

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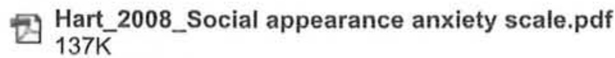
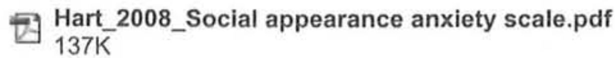
4 attachments


Hart_2008_Social appearance anxiety scale.pdf
137K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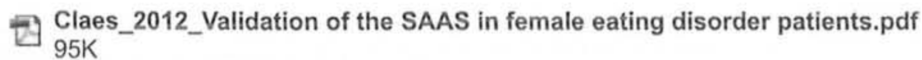
137K

Levinson & Rodebaugh_2011_Validation of the SAAS.PDF
235K


Claes_2012_Validation of the SAAS in female eating disorder patients.pdf
95K

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fatima zakir <fatimazakir92@gmail.com> Tue, Apr 10, 2018 at 8:17 PM
To: Trevor Hart <trevor.hart@psych.ryerson.ca>

Thank you!
[Quoted text hidden]

fatima zakir <fatimazakir92@gmail.com>

permission to use K-10 scale

5 messages

fatima zakir <fatimazakir92@gmail.com> Tue, Apr 24, 2018 at 8:53 AM
To: Kessler@hcp.med.harvard.edu

I am a research student at National Institute of Psychology, Quaid-I-Azam University Pakistan. I am conducting a research on Social Appearance Anxiety, psychological distress and Quality of life among patient with dermatological problems. I came across the scale titled "K-10". As per the research ethics i am supposed to seek formal permission before using this scale for research purpose.

If allowed i will use it only for my research work and can share my findings with you as well if needed.
Looking for a positive response from your side.

Regards,

Fatima Zakir

Kessler, Ronald <kessler@hcp.med.harvard.edu> Tue, Apr 24, 2018 at 2:41 PM
To: fatima zakir <fatimazakir92@gmail.com>
Cc: "Gorman, Teresa" <Gorman@hcp.med.harvard.edu>

Fatima - You have my permission. Good luck. Ron Kessler

Teresa - Please send K10 material to Fatima. Thx. Ron

Ronald C. Kessler, Ph.D.
McNeil Family Professor
Department of Health Care Policy
Harvard Medical School
180 Longwood Avenue
Boston. MA, USA 02115-5899
617-432-3587 voice; 617-432-3588 fax
Kessler@hcp.med.harvard.edu

[Quoted text hidden]

fatima zakir <fatimazakir92@gmail.com> Tue, Apr 24, 2018 at 3:24 PM
To: "Kessler, Ronald" <kessler@hcp.med.harvard.edu>
Cc: "Gorman, Teresa" <Gorman@hcp.med.harvard.edu>

Thank you for your support.
[Quoted text hidden]

Gorman, Teresa <Gorman@hcp.med.harvard.edu> Tue, Apr 24, 2018 at 7:08 PM
To: "fatimazakir92@gmail.com" <fatimazakir92@gmail.com>

Dear Fatima Zakir,

fatima zakir <fatimazakir92@gmail.com>

Your DLQI licence has been approved - Licence ID CUQoL1649
1 message

Dermatology Quality of Life - Licensing <info@licensing.dermy.org> Sun, Apr 8, 2018 at 10:06 PM
Reply-To: technologytransfer@cardiff.ac.uk
To: fatimazakir92@gmail.com

Dermatology Quality of Life - Licensing

Dear Ms Fatima Zakir,

This e-mail confirms a free licence (License ID CUQoL1649) has been granted to you to use the DLQI for the purposes of your study (MSc. Psychology) in accordance with the terms and conditions of the licence.

Languages selected:
Urdu

You can download the questionnaire from our website.

Please note: You must include the appropriate copyright statement at the end of every copy of the questionnaire. For the DLQI this is: '© Dermatology Life Quality Index. AY Finlay, GK Khan, April 1992'.

If you require further information, please contact: dermqol@cardiff.ac.uk

Regards,

Hillary Barton

fatima zakir <fatimazakir92@gmail.com>

ermission to use Brief COPE Inventory

3 messages

fatima zakir <fatimazakir92@gmail.com> Tue, Apr 24, 2018 at 12:40 PM
To: ccarver@miami.edu

I am a research student at National Institute of Psychology, Quaid-I-Azam University Pakistan. I am conducting a research on Social Appearance Anxiety, Quality of life and coping strategies being used by the patients with dermatological problems. I came across the scale titled "Brief COPE Inventory". As per the research ethics I am supposed to seek formal permission before using this scale for research purpose. Moreover I will be grateful if you will send me the scoring and interpretation of the respective scale.

If allowed and sent I will use it only for my research work and can share my findings with you as well if needed.
Looking for a positive response from your side.

Regards,

Fatima Zakir

Carver, Charles S. <ccarver@miami.edu> Tue, Apr 24, 2018 at 6:30 PM
To: fatima zakir <fatimazakir92@gmail.com>

I apologize for this automated reply. All measures I have developed are available for research and teaching applications without charge and without need to request permission; we ask only that you cite their source in any report that results. This also means please do not ask me to send you a letter authorizing the use of a scale, because this message is all I am going to send.

These measures were developed as research scales, not clinical instruments. So there is no particular reason for me to keep norms for any of them. There is no "manual" for any of them, so don't ask for one. For more detail on the scales, what they assess and how to score them, please see the articles in which they were published and the specific web page pertaining to them.

Basic information concerning the measure you are asking about can be found at the website below. I think most of your questions will be answered there. If I know for sure that there is a translation of a scale published in a language other than English, that information can be found there. If no information is there about the language of your interest, that means I do not know of a published translation. You are free to do your own.

If specific questions remain, do not hesitate to contact me. Good luck in your work.

http://www.psy.miami.edu/faculty/ccarver/CCscales.html

Charles S. Carver
Department of Psychology
University of Miami
Coral Gables FL 33124-0751

305-284-2817
ccarver@miami.edu
http://www.psy.miami.edu/faculty/ccarver/