RELATIONSHIP BETWEEN GENDER ROLES AND DISORDERED EATING BEHAVIORS AMONG ADOLESCENTS

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Dedicated to my Beloved Ammi Jan And Abu Jan

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ABSTRACT

Presented study is an attempt to see the relationship between gender roles and disordered eating behaviors among adolescents. Sample of 340 adolescents with the age range of 16 to 20 years (M = 38.82; SD = 8.91) from different government and private educational institutes of Islamabad. Instruments used in present study were Modified Bem Sex Role Inventory (BSRI; Saleem, 2010) and Eating Disorders Inventory RF form (Garner, 2004). Result revealed significant positive relationship between gender roles along with its three domains masculinity, femininity, and undifferentiated gender role has significant positive relationship with disordered eating behaviors (bulimia, drive for thinness, and body dissatisfaction). Hierarchical multiple regression was carried out to see the predictive affects of gender roles along with gender, age, body mass index and meal per day and results revealed that masculinity and femininity are significant positive predictors of bulimia, drive for thinness and body dissatisfaction, age, gender, BMI, and meal per day also shows significant positive prediction of disordered eating behaviors. Moderation analysis was carried out to see the moderating role of gender between the relationship of gender roles and disordered eating behaviors and results revealed that gender do moderated the relationship of masculinity, femininity and undifferentiated gender roles with bulimia, drive for thinness and body dissatisfaction. Furthermore, demographic variables such as age group, level of education, family system, type of institution, has been explored on study variables and results revealed that of middle age adolescents group reported high bulimia, drive for thinness and body dissatisfaction as compared to late adolescents. Body mass index was catered and results revealed that bulimia, drive for thinness and body dissatisfaction was more prevalent in overweight individuals. Individuals with joint family system score higher on bulimia and body dissatisfaction. Individuals of private institutions show more

tendency of bulimia and body dissatisfaction. Further, limitations and suggestions were addressed in discussion.

Chapter I

INTRODUCTION

Across the globe disordered eating behaviors are vividly varying. There is a speedy changeover around the culture due to diversity in every society regarding their gender roles. This drastic shift of the culture has created a lasting effect in developing cultures of Asia, including Pakistan. Emphasis of the media on an extra skinny as well as underweight model as an ideal figure is causing severe distress, drive to be thin, body dissatisfaction and psychological disruption in eating behavior of young boys and girls. In the whole course of life, we are reinforced to consider foods for pleasure and reinforcement. It is very astonishing that these reinforcements become very harming in the college years. This evidence comes from the fact that disordered eating behaviors are the most common chronic illness among adolescents after obesity and asthma (Polivy & Herman, 2001; Cheng, 2014).

The World Health Organization added disordered eating behaviors amongst the most problematic mental illness of adolescents (World Health Organization, 2005). Disordered eating behavior comprises of abnormal behavior of food consumption that is associated with eating patterns as well as weight within a broad manner. It is observed that the beginning of disordered eating behavior peaks in age of adolescence (Stice et al., 2009). Blashill (2011) defined gender roles as a prospect, responsibility and the behaviors that are set as a standard by the society as masculinity and femininity gender role. They are embodied in the behavior of an individual and they are culturally regarded as most accepatable norm of being male or being female (Blashill, 2011). In the course from childhood towards adolescence, individuals are frequently open to a lot of psycho-social factors which manipulates their personal feelings as well as their reaction concerning gender roles. Such feeling along with behaviors about their gender roles are cultured primarily at home and later toughened by the child‘s peers, school norms as well as television viewing. Nevertheless, strongest pressure upon gender role appear to peak within the ancestors surroundings and with parents (Polivy & Herman, 2001).

Hepp, Spindler and Milos in 2005 in a meta analytic review demonstrated that an adolescent with disordered eating behavior scored higher on femininity as well as lower on masculinity than individual without disordered eating behavior. They also

found that girls are more likely to develop disordered eating than men. Female gender is normally considered as a significant risk factor for disordered eating.

Parental influence on gender role development leads to the proposition that an androgynous gender role, having both masculine and feminine traits, may be more beneficial for children than traditional gender roles i.e., masculine or feminine (Witt, 2008). Adolescents who camouflage these socio-cultural standards are commonly at an elevated danger for developing disordered eating behaviors and related issues i.e., body dissatisfaction, bulimia and drive for thinness

It appears reasonable that adherence to gender role prospect may play a role in the development of disordered eating in the women. In adolescents, gender role represents an important factor for intrapersonal development and interpersonal relationships (Murnen & Smolak, 2006). In boys, expressiveness serves as a supplementary role. Boys who exhibited an elevated quantity of stereotypical feminine traits (as well as activities, hobbies, or appearance characteristics related to femininity) showed a great deal of gender atypical behavior. Boys usually learn to exhibit higher levels of stereotypical male traits, attitudes as well as behaviors and stay away from stereotypically feminine attributes

The focus of current study is to study the relationship between gender roles and disordered eating among adolescents. It will also explore the moderation of gender in relationship with the gender roles and disordered eating. The nature of the activities was depending on the subject e.g., Poems and stories for oral presentations, science teacher was giving diagram for labeling. Students were asked to draw a map of Pakistan with different material and colors and showed different regions on the maps in Social Studies class. Teacher also gave this activity as homework assignment for practice, gave directions and guidelines about making it properly. This activity boosted the confidence level of the students and enhanced creativity. Some students were less creative, but they sought ideas from other peers and teachers. It would be helpful for the psychologists to implement the preventive measures and intervention programs in this regard.

Gender Roles

Gender basically refers to the social distinctiveness as well as social roles of females and males as set by the society (Vefikulucay, Zeyneloglu, Eroglum, & Taskın, 2007). Gender varies from 'sex' in that the sex is biologically indomitable while the gender is shaped by the awareness, expectations, as well as obligations of society and culture. Gender roles are well defined as what people believe about male and female grouping (Archer & Lloyd, 2012). It is the expectations or prospect about what is suitable for each sex encompass the uniqueness of gender, on the other hand, sex role is perceive more as the practice through which people who are as expected bring in to living categorization of male or female revolve into the social classes of men and women throughout the securing of provincially characterized uniqueness of masculinity and femininity (Irshad, 2005). Gender roles are frequently a self-perceived build and are based on how individuals identify themselves as masculine or feminine (Johnson, Greaves, & Repta, 2007). Studies have revealed that gender roles self-governing of biological sex have an effect on health (Doyal, 2000; GaleRoss, Baird, & Towson, 2009). Usually, it is revealed that having masculine gender role is linked with worse physical health (Mansdotter, Lundin, Falkstedt, & Hemmingsson, 2009) and high femininity correspond to worse mental health Vafaei et al., 2014)

According to Blashill (2011) gender role has been defined as behaviors, expectations, and role sets defined by society as masculine or feminine which are embodied in the behavior of the individual man or woman and culturally regarded as appropriate to males or females. Bem (1974) defines masculine and feminine as two distinctive dimensions of gender roles. Masculine refers to being independent, assertive, rational, fair, determined and analytical; whereas feminine refers as being warm, kind, touchy, intuitive, sensible and shared. Still, there are further two gender role categories that are masculinity, femininity, androgyny and undifferentiated. Both androgyny as well as undifferentiated gender role categories are defines as gender roles which comprises the traits from both femininity and masculinity. Contemporary world make us consider that individuals from the both sexes require showing the mixture of gender roles that is suitable for the presented circumstances. It has been argued that sticking to only one gender role confine individuals. Somewhat, Bem emphasize that androgynous individuals are measured as superior at adapting various situations (Bem, 1975).

Sex roles basically allude to environment someone carries on a female or male role, while gender role refers to the way by which he or she lives that role (Mahalik et al., 2003). Sex roles are to be found of traits; including identity attributes, state of mind, attitude and behavior that society and culture differentiate as appropriate for each one's sex. Sex roles are "recommend requirements for gender, particularly as a set of practices with masculine and feminine role underscoring instrumental practices (Pistray, 2004)

The imparted perspective among all definitions is that gender role is a recommended of qualities as well as practices that a general public authority from its part to take after. Gender roles, specifically are the tasks as well the qualities that society allots particularly to men and women: similar to whom does what work, who oversee to the youngsters who can exhibit which feelings. However, how adolescents got develop into these roles and in addition how they came to carry on in the ways we call manly and ladylike is the methodology of gender role improvement (Liben & Bigler, 2002).

Individuals gain gender roles via gender role socialization. Parents' prospect, teachers' expectations as well as social expectations play the most important role in adapting their gender roles (Ozdil & Aydin, 2009). Sex and gender are more often than not exploit entomb variably. Some argue that for the refinement between these both, taking one to allude to biological classification and the other to a socio-cultural development (Archer, 1984). Some use the term gender to allude to biological sex, and keep the term gender roles for the socio-cultural sense while others utilize the terms within the inverse way, with the goal that gender alludes to the social develop and sex to the biological actuality (Irshad, 2005).

Gender means the socially built and socially decided qualities connected with ladies and men, the presumptions made about the aptitudes and capacities of ladies and men focused around these trademark. The conditions in which ladies and men live and work, the relations that exist in the middle of ladies and men, and how these are spoken to, conveyed, transmitted and kept up, are included in gender roles. It incorporates sexual and social relations focused around sexuality, and relations of force and control focused around gender (as cited in Blashill, 2011). According to gender schema theory by Bem (1974), gender roles have four components.

Masculinity and femininity. Masculinity and femininity allude to the sets of qualities normally connected with each one sex that by and large recognize the genders from each other. Attributes normally named as masculine incorporate; forceful, autonomous, predominant, focused, logical, goes about as a pioneer, and self-assured. Feminine attributes include: passionate, touchy, nurturant, accommodating, thoughtful, warm and natural (Bem, 1974) Bem (1974) conceptualized masculinity and femininity as autonomous measurements when she created the Bem Sex-Role Inventory (BSRI). The BSRI was produced by having subjects rate the degree to which they considered aspects to be attractive in men and women. Feminine things were those seen as more attractive in females than males and masculine things were those seen as more alluring in males than females. Hence, the rule was not a distinction in the social attractive quality of characteristics focused around their vicinity in men and women. The last instrument held 20 masculine things, which measured an instrumental introduction; 20 female's things, which measured an expressive introduction; and 20 nonpartisan things (Bem, 1981).

Androgyny. Psychological androgyny term denotes the integration of both femininity and masculinity within a single individual. Androgynous traits are those traits that either have no gender value or have some aspects generally attributed to the opposite gender. The concept of psychological androgyny implies that it is possible for an individual to be both compassionate and assertive, both expressive and instrumental, both feminine and masculine, depending upon the situational appropriateness of these various modalities (Bem, 1981). Bem in his Sex-role Inventory depicts the term androgyny as the individual who scores high on both masculinity and femininity is considered as an androgynous individual. It has been observe that androgynous individuals are at more protected side regarding disordered eating behaviors (Liyeny, 2000). Androgynous men and women are more flexible and more mentally healthy than either masculine or feminine individuals; undifferentiated individuals are less competent (Bem, 1981)

Undifferentiated. A person (male or female) who displays few, if any, or no traits, behaviors or characteristics that society associates with the male gender role or with the female gender role is said to have an undifferentiated gender role identity (Bem, 1981). A female or a male with an undifferentiated gender role identity is not sex-typed.

As Bem in his Bem Sex-role Inventory depicts the term undifferentiated as the individual who scores low on both masculinity and femininity is considered as undifferentiated. Bem in his gender schema theory alludes that undifferentiated people don't demonstrate effective handling of sex-wrote data. This kind of score was seen as the consequence of to great degree low masculine and feminine qualities (Bem, 1981).

Types of Gender Roles

Boehnke (2011) explained that Gender role has following two types

Traditional gender role. Traditional gender role orientation represents one cultural factor that deserves further inquiry. In patriarchal societies, traditional gender roles for men are defined in terms of assertiveness, dominance, and independence (Bem, 1974). Society places a great value on these hegemonic “masculine” traits. For women, traditional gender roles are typically rooted in emotional warmth, a willingness to put others’ needs above their own, and subordination to men (Hoffmann, Powlishta, & White, 2004).

Research suggests that conformity to traditional gender role orientation is associated with gender-specific risk outcomes. According to congruence models, individuals who endorse sex-typed gender expectations are also more likely to conform to cultural gender norms than people who do not (Barrett & White, 2002). Given this logic, males who identify more strongly with traditional gender role expectations, would be expected to engage in risk behaviors more common among males, such as drug and alcohol use. In contrast, females who identify more strongly with traditional gender role expectations would be at increased risk for engaging in risk behaviors most commonly found among females, such as disordered eating (McCreary et al., 2005).

Egalitarian/ modern gender roles. The adoption of egalitarian gender ideals involves new roles for both women and men. For women, new responsibilities involve greater participation in paid-employment, and a greater share in providing the family’s financial need. A corresponding decrease in their obligatory engagement in childcare and housework should also be observed (Boehnke, 2011). For men, anticipated behavior includes increased household duties and acceptance of additional

responsibilities for child rearing Egalitarian gender roles are based on the knowledge that differences between the gender are much smaller than the once believed. The few differences are of little importance in modern life. Male and female are more alike than different (Hoffmann, Powlishta, & White, 2004)

Theories of Gender Role

There are three significant speculations that clarify the development of femininity and masculinity: psychoanalytic hypothesis (Freud, 1927), cognitive-formative hypothesis and learning theories that underscore immediate fortification and demonstrating In these hypotheses, a two-section methodology is included. In the first part, the kid comes to realize that he or she is male or female. In the second part, the tyke comes to realize what being female or male means as far as femininity or masculinity.

Psychoanalytic/identification theory. The soonest clarification of gender roles socialization is that of Freud's recognizable proof theory focused around oblivious, instinctual or maturational procedure. Parental Identification is the procedure by which the children embrace and disguises parental qualities, disposition, behavioral characteristics, and identity aspects. Distinguishing proof theory propose that children create gender role ideas and qualities by relating to their guardians particularly with the folks of same gender. The methodology of recognizable proof begins quickly after conception due to the tyke's initial reliance upon folks. This reliance is turn prompts a nearby enthusiastic connection. Through this distinguishing proof procedure young men obtain masculine and young ladies procure feminine qualities.

Cognitive development theory. Cognitive development theory is additionally called marking and self-socialization theory. It focuses on that youngsters eagerly try to obtain gender personalities and part. The theory proposes that gender part personality has its starting in the gender that is cognitively doled out to the kid during childbirth and that is in this way acknowledged by him or her while growing up. As indicated by Kohelberg (as cited in Zanden, 1990) kid's classification is the fundamental coordinator of the gender part demeanor that creates. Youngsters recognize themselves as boy or a girl, and act according to gender expectations. They start to structure their own particular experience as indicated by the conduct designs

that are steady with their gender character. This methodology is called self-socialization. As per this theory girls and boys like to esteem their own particular gender proper conduct.

Biological theories Examines of gender contrasts from a biological perspective have fixated on hormonal impacts and appraisals of heritability. Hormones influence the association of the neural substrates of the mind, including laterization of cerebrum capacity. It has been accounted for that females demonstrate less horizontal cerebrum specialization than do guys, however the contrasts are little and a few studies discover no such distinction (Bryden, 1988; Halpern, 1992; Kinsbourne & Hiscock, 1983). Contrasted with girls, boys experience childhood in all the more spatially perplexing situations, get more consolation for open air play, and captivate widely in exercises that encourage the improvement of spatial aptitudes. As per a social source, gender contrasts in spatial capability are not found in societies where ladies conceded more noteworthy opportunity of activity.

Social learning theory. As indicated by social learning perspective kid obtains gender parts by impersonation and demonstrating notwithstanding regulate direction and support from folks that happens from conception. As per Bandura, kid is more prone to mirror his or her same-sex guardian. Notwithstanding, Bandura explained that models may not so much be human. For instance, typical models are exhibited pictorially or verbally. A real purpose of social learning theory is the critical behaviorist standard of support. Social learning theory proposes that kids get to be gender-written by being incentized for gender-proper conduct (Bandura, 1986).

Gender- Schema Theory. Bem (1979) did not characterize gender schema theory all things considered until a few years after she created to BSRI. Gender schema theory (Bem, 1981) holds peculiarities of both the cognitive-developmental and the social learning records of sex typing. Specifically, gender schema theory suggests that sex typing infers in substantial measure from gender schematic transforming, from a summed up preparation from the child to encode and to arrange data, including data about the self as per the society's meaning of maleness and femaleness. Like cognitive developmental theory, then, gender schema theory recommends that sex typing is interceded by the child cognitive preparing. Be that as it may, gender schema theory suggests that gender-schematic preparing is itself

determined from the sex-differentiated practices of the social group. Accordingly like social learning theory, gender schema theory accepts that sex typing is an educated wonder and subsequently that it is not unavoidable or un-modifiable.

In gender schema theory, Bem (1981) holds that kids learn originations of proper gender conduct and the system of gender related relationship from their society and afterward they figure out how to apply this system as they assess and consolidate new data. The kid's previous perspectives about gender will affect how new data is seen. At first, a tyke figures out how to survey characteristics diversely for distinctive genders (for instance, the kid sees young men as stronger than young ladies). In the long run, the tyke sees measurements as having a place altogether to one sex and not the other. The measurement is totally expelled from the schema that they apply to one gender. (The idea of "solid" is no more connected to young ladies in any degree. Rather young ladies are seen as the inverse: "weak".). The result is that the sexes get to be diverse to the kid, "not only in degree, yet in kind." (Bem, 1981). Luckily, the procedure of creating a gender schema is not limited or unchanging. Since gender schema theory sees gender schemas as educated and progressively developed, it accommodates the likelihood of progress.

Gender-schema theory starts with the perception that the creating tyke constantly realizes his or her general public's social meanings of femaleness and maleness. In more social orders, these definitions, these definitions contain a different and sprawling system of sex-joined affiliations enveloping not just those gimmicks specifically identified with female and work, and identity characteristics, additionally offers all the more remotely or figuratively identified with sex, for example, the angularity or roundedness of a conceptual shape and the periodicity of the moon, for sure, no other dichotomy in human experience seems to have the same number of substances connected to it as does refinement in the middle of female and male (Bem, 1981). Notwithstanding adapting such substance particular data about gender, the kid likewise figures out how to summon this heterogeneous system of sex-related relationship keeping in mind the end goal to assess and absorb new data. The kid, in short, figures out how to encode and compose data regarding an advancing gender schema (Bem, 1981).

It is essential to note that gender schema theory is a theory of methodology, not content. Since sex-typed people are seen as transforming data and regulating their conduct as indicated by whatever meanings of womanliness and manliness their society happens to give, it is the procedure of dividing the world into female and manly classifications and not the substance of the classes that is fundamental to the theory (Bem, 1981).In like manner sex typed people are seen to contrast from different people not essential in the level of womanliness or manliness they have. Anyway in the degree of which their thoughts toward oneself and practices are sorted out on the premise of gender as opposed to some other measurement. At the point when sex typed people portray themselves, in any case, it is the gender undertones of the properties or practices that are dared to be notable for them (Saleem, 2006).

Consequently the sensation of sex typing determines to some degree from gender schematic preparing, from an individual's summed up preparation to process data on the premise of the sex-connected affiliations that constitute the gender schema. Particularly, the hypothesis suggests that sex typing brings about part from the osmosis of the self idea itself to the gender schema. As kids take in the substance of their general public's gender schema, they realize which ascribes are to be joined with their own particular sex and thus with themselves (Saleem, 2006)

This does not basically involve taking in the characterized relationship between each one sex and each one measurement themselves are differentially appropriate to the two sexes. Along these lines the kid figures out how to apply this same schematic selectivity to the self, to browse among the numerous conceivable measurements to human identity just that subset characterized as relevant to his or her own particular sex and accordingly qualified for sorting out the different substance of the thought toward oneself. Therefore do kids' plans toward one get to be sex-written, and subsequently do the sexes get to be, in their eyes distinctive in degree, as well as diverse in kind (Bem, 1981).

Factors Influencing Gender Roles

Both within and across different cultures we find great consistency in standards of desirable gender-role behaviour. Males are expected to be independent, assertive, and competitive; females are expected to be more passive, sensitive, and supportive. These beliefs have changed little over the past twenty years within the

United States, Asian cultures and apparently around the world as well. There is some variation in cultural gender-role standards across cultures and these variations influences one's own gender role. Factors like age, gender, education, family system, and birth order are very influential in effecting gender roles due to cultural standards for males and females as set by the given society (Moscuit, 2001; Laslow, 2000; Ryov, 2001).

Age. Lancett (2007) explained that age of adolescence represented a crucial turning point in the development of a sense of identity and gender roles. All of the physical, social, and cognitive changes of these years lead to frequent soul-searching about "Who am I?" Such uncertainty and insecurity also can further promote conformity into one's gender role, or "gender intensification." During early adolescence, boys may emulate "macho" role models and be quite homophobic; girls may adhere to strict dress codes (e.g., that which is "in") and play down their intellectual talents and abilities. The age of puberty may also have significant implications for adolescent gender role development because of the pubertal changes in boys and girls and also the maturity and growth factor they faced. Bem in 1981 explained that gender roles understanding and gender role implementation rises in the mid- adolescence towards late adolescence when with the growing age adolescents encounter with the responsibilities and tasks regarding their gender i.e., girls are more trained to be nurturing and dependent but on the other hand boys are taught to be assertive and dependent. Girls are more likely to encounter social difficulties when they mature early, but for boys the opposite is true (Diostray, 2001).

Gender. Gender usually refers to a set of characteristics that are either seen to distinguish between male and female, one's biological sex, or one's gender identity. It is not necessarily based on biological sex, either real or perceived, nor is it always based on sexual orientation (As children move through childhood into adolescence, they are exposed to many factors which influence their attitudes and behaviors regarding their gender roles (Moscuit, 2001). These attitudes and behaviors about their gender roles are generally learned first in the home and are then reinforced by the child‘s peers, school experience, and television viewing. As we grow, we learn how to behave from those around us. In this socialization process, children are introduced to certain roles that are typically linked to their biological sex (Blashill, 2011). Both within and across different cultures we find great consistency in

standards of desirable gender-role behavior. Males are expected to be independent, assertive, and competitive; females are expected to be more passive, sensitive, and supportive. Divergence between cultures is also clearly seen in Mead, 2003 study of differences between three primitive tribes. In two tribes both men and women displayed what the Western world considers to be either feminine or masculine characteristics. In a third tribe the genders reversed the traditional Western roles. However, even within groups, individual differences in the strength of stereotypes often outweigh group characteristics (Mead, 2003).

Education. The education specially college level education is a stage on which gender roles are developed at peak in our society, and thus college contribute to the assignment of unequal status and work opportunity in our rapidly changing economy (Envil & Richard, 2007). College education is major contexts for gender role socialization, in part because children spend large amounts of time engaged with peers in educational settings. For nearly all psychological traits on which young boys and girls differ (e.g., reading ability, play preferences), the distribution of the two groups is overlapping (Smeekhill, 2005). Colleges can magnify or diminish gender differences by providing environments that promote within-gender similarity and between-gender differences in their gender roles, or the inverse (within-gender variability and between group similarity) (Witt, 2008). The procedure of formal training further fortifies desires learn in the home. Basic school is frequently depicted as being exceptionally feminine in that most instructors are ladies, in this way giving feminine models to children. Doyle (2005) discovered that young men were swayed to be more forceful than young ladies were, inasmuch as young girls were more inclined to be recognized for more reliant sticking practices.

Family system. In most of the societies the family systems (i.e., nuclear or joint) are based on the gender roles and it is the pre-designed gender roles that help members of the family to run the family with bound responsibilities in regard to every member's gender role (Eisnaey, 2011). Any disturbance in the gender role aspect may affect the smooth functioning of any family. Both nuclear and joint family systems provide the foundation of the individual to carry his or her gender role (Wittney, 2007). Families are diverse and shared experience, acceptance of difference and respect and are key values in any progressive society. In nuclear family system there are two main significant and dominant members i.e., husband and wife) that in term

has certain responsibilities (women are more inclined to cook, clean and shows care towards family) on the other hand men are more inclined to protect the family financially and feed them (Wilsney, 2002). Joint family system provides multiple dominant figures serving for multiple family members (Prokerala, 2005). These differences in the family system influences the gender roles as the gender itself is a social construct, it is used to explain and justify men's dominance over women across all dimensions of society (Pantazis, 2006).

Birth order. Perceptions about birth order can also influence your choice of roles. As explained by Stewart (2012), using Adler's framework, the firstborn child (or one with the "oldest" role) would be most likely to take on a leadership position, like it when people stick to rules and order, and strive toward achievement goals. The firstborn may be sensitive to being "dethroned" by younger sibs who drain away the attention of parents that the firstborn enjoyed before they came along. The youngest child may feel less capable and experienced, and perhaps is a bit pampered by parents and even older sibs. As a result, the youngest may develop social skills that will get other people to do things for them, thus contributing to their image as charming and popular. Then there's the all-too-easy-to-ignore middle child, who feels robbed of the prized youngest child status, and perhaps feel rejected. On the positive side, the middle child may also develop particularly good social skills in order to keep from being ignored. For the only child, there's the possible advantage of receiving all the attention from parents, but this is balanced by the feeling of constantly being scrutinized and controlled (Stewart, 2012)

Gender Roles in Pakistan

In general Asian countries especially in Pakistan more than 50% of the population inclined to their traditional gender role that is, being stick to their own gender role i.e., females are more incline to feminine gender role and males are more incline to masculine gender roles (Aslam, 2004). According to a Gilani Research Foundation (2006) survey carried out by Gallup Pakistan majority of the Pakistan population believe that both males and females have different roles to play in the society.

In the recent years although women's role has broadened beyond being a housewife, many people still give priority to men in politics, education, employment,

and related walks of life (Gillani, 2006). In the survey out of 500, 400 choose traditional gender role as compared to egalitarian gender role. Other than this the frequency of femininity gender role was 68.2%. When the respondents were asked to give their opinion on a number of statements about gender roles 63% of the respondents agreed with the statement that Boys' education is more important than girls'; 37% disagreed with it, more than 90% believe that female children should be educated, nearly half of them believing that, should opportunity be available, they should rise to college education and beyond. Fifty five percent of the respondents believe that both husband and wife should work; while 45% said it is wrong for both husband and the wife to work. Interestingly more than 50% of men including those from rural areas agree that both husband and wife should work for a better living (Haque, 2009).

A study on gender role attitudes and occupational aspirations of Pakistani adolescents and their findings revealed significant difference in occupational aspirations of males and females as men aspired more for traditional men occupations and women aspired more for traditional women occupations than traditional men occupations. Moreover, girls were found to have more modern/egalitarian gender role attitudes than boys but this change may only appear in their attitudes, not in their real aspirations. Mean scores and ranking of boys' occupational aspirations showed their high aspirations for engineering, armed forces, and pilots whereas, girls aspired more for occupations of medicine, lecturer ship, and psychologist (Aziz & Kamal, 2012)

Another study on gender roles and their influence on life prospects for women in urban Karachi, revealed that men holding a superior position in relation to women, distinctive features in the culture and the role of the extended family were considered to interact to suppress women. Findings also revealed that role of education was prominent as well as the role of mass media. It was further emphasized that the younger generation was more positive to modernization of gender roles than the elder generation (Ali et al., 2011) A study led by Bukhari (2013) on gender role discrimination suggested that gender role discrimination is prevalent in Pakistani society but causes of gender discrimination are usually misunderstood .Usually this discrimination is influenced by cultural norms and traditions, religion, region

Disordered Eating Behavior

Disordered eating behaviors refer to worrying eating patterns that are less recurrent or less severe than diagnosed eating disorders. The difference between disordered eating and irregular disruption of normal eating patterns is the necessity and the perseverance behind the eating behavior. Review of recent researches showed that disordered eating or atypical eating disorder is far more common and widespread than actual eating disorders (Mclearly, 2012). A survey of recent research literature shows an alarming rise in eating disorders in South Asian and Islamic countries (Muazzam & Khalid, 2008)

Disordered eating behavior also refers to unusual behavior identified with eating and weight in a more extensive sense (Stice et al., 2010). The onset of disordered eating crests in adolescence (Soloman, 2003). In this time of life, a certain level of disordered eating is even suggested as normal. To a few people, it may give an intends to accomplish an esteemed appearance and acknowledgement, build feeling of control, and lessening contrary sentiments. During development towards adulthood, these issues should lessen while different objectives in life pick up more significance. Although, in a few cases the improvement is not good yet, rather, give rise to delayed issues with eating and weight, consequently expanding the danger for the onset of clinically diagnosed eating disorders (Chamay-Weber et al., 2005). To keep this negative pathway, screening for disordered eating is suggested to be incorporated in the routine wellbeing examinations of adolescents. In any case, in an instance of a positive 11screening come about, the inquiry remains whether that specific finding of eating pathology is liable to continue or sort out in the course towards adulthood. (Hautala et al., 2011).

In addition to disordered eating behaviors, the way an individual interprets, relates, and reacts to unwanted internal events (e.g., fear of gaining weight and body dissatisfaction) plays a central role in the onset and maintenance of disordered eating (Aldao, Nolen-Hoeksema, & Schweizer, 2010). It has also shown that disordered eating behaviors, such as restricted or excessive dieting, binge eating and purging, and preoccupation with caloric intake, often function as maladaptive emotion and behavior regulation strategies (Schmidt & Treasure, 2006; Wedig & Nock, 2010). The most normally considered danger components for disordered eating incorporates

female gender orientation and negative affectivity. This leads to increased body dissatisfaction, depressiveness and uneasiness. The dominance of females with eating, contrasted with males, is discovered reliably in both clinical and non-clinical studies (Hautala et al., 2011)

Disordered eating behaviors and appearance concerns include undesirable weight decrease practices, and stresses over weight and shape are of generate concern. A national study (2003) found that 44% of auxiliary school understudies reported endeavoring to get fit as a fiddle and 61.5% reported drilling to get more fit or not put on weight in the 30 days going before the diagram. These data demonstrates that various youth are agonized over their weight. For some, these concerns can provoke all the more astonishing weight diminishment rehearses, for instance, pigging out, hurling, laxative sick utilize, and skipping meals to get more slender (as cited in Lopez et al., 2013). To keep this negative pathway, screening for disordered eating is proposed to be incorporated in the routine wellbeing examinations of young people. In any case, in an instance of a positive screening come about, the inquiry remains whether that specific finding of eating pathology is prone to continue or intention in the course towards adulthood (Hautala et al., 2011).

Disordered eating behaviors are truly common among juvenile adolescents. Marginally more than a large portion of 57% of adolescents in one substantial scale study reported utilizing unfortunate weight control practices (e.g., fasting, smoking cigarettes or skipping meals) keeping in mind the end goal to decrease weight in the course of the previous year. Not at all girls, have boys commonly needed to put on muscle or weight to fit in with a socio-cultural standard of appeal for boys that underscore quality and huskiness. Young men who try to attain this perfect are at danger for creating weight and body concerns. An agent statewide overview of Connecticut youth found that adolescent boys participate in a few eating related practices (e.g., counting calories, heaving, diuretic utilization) to control their weight and body shape with pretty nearly 21.2 percent of them apparently eating more sustenance and/or utilizing nourishment supplements to put on weight or muscle (Lopez et al., 2013). As per Garner (2004), bulimia, drive for thinness and body dissatisfaction can be as a referral to assess disordered eating behaviors in the normal population (EDI-3 RF, 2004). These are:

Drive for Thinness. Demonstrates unreasonable concern with eating fewer carbohydrates, distraction with weight and entrenchment in a compelling quest for thinness. Bruch (1973, 1978) and others have portrayed this as a cardinal gimmick of anorexia nervosa. Things reflect both an impassioned wish to get in shape and lose weight and also a trepidation of weight gain (Garner, 2004). Drive for thinness effects many nations across the developed world and is strongly associated with the levels of body image distortion, disordered eating, and diagnosable eating disorders. According to Calogero, Boroughs, and Thompson (2007) drive for thinness is defined as an excessive concern with dieting, preoccupation with weight, and fear of weight gain. Drive for thinness is an excessive drive to be thin. Women in particular have powerful drive for thinness Evans (2003). Both anorexia nervosa and bulimia nervosa include the over concern with body shape and weight gain in their diagnostic criteria. This concern is sometimes labeled fear of fat and drive for thinness (Garner, 2004). According to Morry and Staska (2001) cultural standards urge women to remain thin and cause people to compare themselves with others and with a cultural standard that they perceive as ideal, which leads to a strong drive for thinness in some individuals.

Bulimia. Shows the propensity to episodes of uncontrollable overeating (bingeing) and may be trailed by the drive to participate in induced toward oneself retching. The vicinity or nonattendance of bulimia separates subtypes of anorexia nervosa and has been portrayed in ladies with no earlier history of anorexia nervosa. Late studies have discovered that bulimia is generally regular among school females in any case; these studies have not utilized overall standardized measures (Garner, 2004). Bulimia nervosa is a chronic and often severe eating disorder, which occur in both adolescents and young adults. It is characterized by a normal body mass index (BMI), binge eating episodes and compensatory behaviors to eliminated these binges, namely self-induced vomiting. (Daniel et al., 2014).

Binge eating and the compensatory behavior of purging (e.g., vomiting) have both been understood as modes of affect regulation in the context of bulimia nervosa (Garner, 2004). That is, there is evidence to suggest that these bulimic behaviors may serve to help an individual manage his/her negative affect or escape from aversive self-awareness (Brownstone et al., 2013). As Heaner and Walsh (2013) defines Bulimia Nervosa as eating behaviors that include episodes of binge eating which are followed by recurrent inappropriate behaviors (such as self-induced vomiting)

performed in an attempt to avoid weight gain from the caloric overload. To satisfy the current criteria, the behavior must be frequent (on average, at least two times per week for 3 months or longer.

Body Dissatisfaction. Reflects the conviction that particular parts of the body connected with shape change or expanded "bloatedness" at adolescence are excessively expansive (e.g. hips, thighs, hindquarters). Body dissatisfaction has been discovered to be identified with other self-perception aggravations which have been viewed as an essential shortfall in anorexia nervosa. Crisp (2000) has recommended that eating less carbs in anorexia nervosa is a reaction to dissatisfaction with pubertal "fatness" and the typical implying that it has for the single person (Garner, 1983). Body dissatisfaction, the subjective negative assessment of one's figure and body parts, helps mental maladjustment over the lifespan and is vital to adolescent growth. Puberty, with its related physical progressions, may move youth to or far from the physical perfect (Guzman, 2014).

As cited in Knauss et al. (2007) many studies have shown that body dissatisfaction is highly prevalent during adolescence. Moreover, there has been substantial empirical evidence indicating that girls show greater body dissatisfaction than boys. Focusing on gender differences in body image that 40% of females and 22% of males were not satisfied with their body. Results of adolescents in the Swiss Multicenter Adolescent survey on health showed that nearly 50% of girls and 18% of boys were not satisfied with their body.

Disordered Eating and Eating Disorders

There are four diagnoses of eating disorders in The Diagnostic and Statistical Manual of Mental Disorders-V (DSM-V), Anorexia Nervosa, Bulimia Nervosa, Binge Eating Disorder, and Eating Disorder Not Otherwise Specified. Specific diagnostic criteria are listed for each of the four diagnoses. An individual with disordered eating is often engaged in some of the same behavior as those with eating disorders, but at a lesser frequency or lower level of severity. However, disordered eating is problematic and to be taken seriously, though the symptoms might not be as extreme as those of a diagnosable eating disorder. Individuals with disordered eating may be at risk for developing a full-blown eating disorder and are more likely to have a history of depression or anxiety, or be at risk for anxiety and depression at some

point in the future. However, falling short of meeting these criteria does not mean a person is maintaining a healthy relationship with food and weight. Individuals who demonstrate disordered eating may still be at risk both physically and emotionally (Alanson, 2014).

Symptoms of disordered eating may include behavior commonly associated with eating disorders, such as food restriction, binge eating, purging (via self induced vomiting or excessive exercise, and use of diet pills and/ or laxatives). However, disordered eating might also include self worth or self esteem based highly or even exclusively on body shape and weight, a disturbance in the way one experiences their body i.e. a person who falls in a healthy weight range, but continues to feel that they are overweight, excessive or rigid exercise routine, obsessive calorie counting, anxiety about certain foods or food groups, a rigid approach to eating, such as only eating certain foods, inflexible meal times, refusal to eat in restaurants or outside of one's own home (Alanson, 2014).

Theories of Disordered Eating Behaviors

There are distinctive type of hypotheses that clarify how eating disorders like anorexia nervosa, bulimia nervosa happens or why an individual is disappointed with his or her body and how this disappointment prompts a drive to be thin.

Social Comparison Theory. Social comparison theory was presented by Festinger (1954). He indicated in Festinger (1954) that in social comparison theory, people tend to rate and assess themselves through comparisons with other individuals. Such correlation based evaluations build with view of closeness. Social comparison theory separates between two sorts of comparisons, descending and upward.

At the point when one downwardly contrasts, or contrasts oneself and those apparent as more terrible off, one display high lightened respect toward oneself and diminished displeasure (Festinger, 1954), Be that as it may, when one upwardly thinks about, or contrasts oneself with those seen as being unrivaled, builds in dejection and resentment are felt, and additionally a reduction in emotions of self-esteem. Since big names' pictures are promptly noticeable to the general population, they get to be social references for some individuals. Despite the fact that we may not generally see VIPs as like ourselves, social comparison theory additionally holds that

we search out people with exceedingly esteemed holdings with whom to upwardly look at ourselves. (as cited in Bughio, 2010). In the events that we see people on TV or in magazines that we see as having qualities that are very discrepant from our mental self portrait, we are progressively inspired to close the hole. Our upward social comparison could urge us to eat in a disordered manner and strive to be thin (Botta, 2000).

Learning theory. The learning theory literature *on* sense of self (Kanter et al., 2001; Kohlenberg & Tsai, 1995) provides a model for how life experiences build. The expression of internal events in the young is undifferentiated. Adverse emotion is communicated with crying; appetitive, with cooing and smiling. Parents/caregivers help make the child's response more specific. When done properly, caregivers look to external events surrounding the undifferentiated response (e.g., crying) and offer labels that match the likely internal event. Kanter et al. (2001) offer “you're hungry” as an example of a matching caregiver response in the case in which it had been a long time since feeding; “you're hurt” would be a matching caregiver response if the child had just fallen. Over time, careful caregivers' guesses are more correct than incorrect. The child learns labels that match internal states and uses these labels to communicate with others about him/herself and guide his/her search for solutions to distress. However, when caregivers fail to look carefully for external clues, responding inappropriately (e.g., “you're hungry” even though the child has just fallen; “you can't be hungry” even though the last meal was long ago), two problematic things happen: The child fails to develop labels for internal events and becomes dependent on others to interpret his/her undifferentiated emotions (Kanter et al., 2001).

Objectification Theory. Objectification theory (Fredrickson & Roberts, 1997) is another social psychological theory that may help explain the development and maintenance of disordered eating patterns in adolescents. Within dominant American culture, theorists have posited that the feminine body has been constructed as an object to be looked and sexually gazed upon (Swim et al., 2004). It is not uncommon for adolescent to feel sexually objectified, often by other, as sexual parts or functions are separated out from her person, reduced to status of mere instruments, or else regarded as if they were capable of representing her”. Such sexualization may occur in many forms, such as via sexual violence or through gaze. Because the female

body exists in this socio cultural context and because women often experience sexual objectification (American Psychological Association, 2007; Fisher et al., 2000), girls and women learn to view themselves from an observer's perspective and to treat themselves as objects to be looked at. Self-objectification, or the internalization of the "objectifying observer's (Swim et al., 2001). Perspective of one′ s body, is thought to behaviorally manifest itself in the act of body surveillance (Moradi & Huang, 2008). That is, if a woman has internalized the observer′ s perspective of her own body, she will engage in persistent body surveillance or monitoring (e.g., Moradi, 2010; Moradi, 2011). In other words, self-objectification describes a perspective of oneself, while body surveillance is the active, behavioral manifestation of this viewpoint.

During the adolescence individuals are vulnerable to self-objectification and its negative effects given the importance that place on appearance during this time (e.g., Muth & Cash, 1997). Research has found that self-objectification is associated with a host of negative consequences in adolescents including: increased appearance anxiety (i.e., fear regarding when and how one′ s body will be evaluated), fewer peak motivational states, diminished awareness of internal bodily states, increased anxiety about physical safety (e.g., fears of being raped), and increased body shame (Fredrickson & Roberts, 1997; Moradi & Huang, 2008; Muehlenkamp & Saris-Baglama, 2002; Szymanski et al., 2011). The more an individual self-objectify and internalize the thin ideal, the more likely they are to experience these negative consequences (e.g., Moradi & Huang, 2008), which may in turn lead to body image disturbance and unhealthy eating patterns (e.g., Fredrickson & Roberts, 1997; Muehlenkamp & Saris-Baglama, 2002).

Continuum theory. Garner (1983) suggested that during the previous decade, anorexia nervosa and all the more as of late bulimia in ordinary weight ladies have been the center of developing consideration from general society part and different wellbeing orders. There is an agreement that they are no more uncommon issue, but instead are predominant with a stamped prevalence in young people. A huge grimness and mortality have been connected with anorexia nervosa while the dangers of bulimia in ordinary weight ladies have not yet been overall archived. Endeavors to un-biasedly measure reaction to treatment have brought about the

advancement of a few measures of the side effects of these eating disorders. Slade (1973) initially proposed an onlooker rating scale for surveying three measurements of anorexic conduct in an inpatient setting (Garner, 1983).

Garner (1983) has created a rating toward oneself scale for surveying a few parts of anorexic conduct; nonetheless, approval was not reported for English-talking subjects. Surveys have additionally been proposed for measuring the side effects of bulimia. Gowdy and Mimley (2013) explained that "eating food gluttonously scale" and reported that in excess of two-thirds of females and one-a large portion of guys in a school example participate in scenes of "uncontrolled" unreasonable consuming. Influenced toward oneself regurgitating was accounted for by 3.5% of the females. Smolak and Ninder (2004) found that most of the adolescents especially females are more inclined towards anorexic symptoms and bulimic symptoms as compared to boys. While late measures grant target evaluation of side effect regions, they either have the hindrance of being suitable just for inpatient organization (as cited in Alitnett, 2013), or they have a tendency to be arranged to behavioral/indication parameters of anorexia nervosa or bulimia. They don't tap mental measurements which have been hypothesized to be all the more in a far-reaching way identified with anorexia nervosa and bulimia (Garner, 2004).

Factors that Influences Disordered Eating Behaviors

As we see that eating behaviors are drastically altering around the world and there is a rapid conversion in culture due to fastest means of communication. This shift of culture has created a lasting affects in developing cultures of Asia, including countries like Pakistan. Besides this, many factors like age, gender, education, family system and birth order influencing these eating behaviors among adolescents (Drewig, 2010; Mamley, 2008; Stray, 2007).

Age. While eating disorders can certainly affect males and females of all ages and backgrounds, the average age of onset for Anorexia Nervosa, Bulimia Nervosa, and disordered eating behaviors takes place during adolescence. Although disordered eating behaviors are usually a result of a number of personal, environmental, psychological, biological and social factors, it seems that adolescents are the most at-risk group of people in developing full bloom eating disorder

(Victoria, 2011). The period of adolescence is one of intense change which can bring with it a great deal of stress, confusion and anxiety regarding eating behaviors for many adolescents. The physical transformation that takes place during this time is enormous and often intertwined with feelings of self-consciousness, low self esteem and comparison with peers results in developing disordered eating behaviors (Kipley, 2004). In addition there are hormonal and brain changes taking place which affect a person physically, mentally, emotionally and psychologically. There is also the issue of social and environmental change, with the period of early adolescence often being a time when a person will change schools, friendship groups and perhaps develop an interest in the opposite or same sex (Moorey, 2008). All in all, adolescence is a time where many big changes in eating related behaviors take place in a seemingly short period of time whereby a person may feel tremendous pressure to find their place in the world despite a great deal of confusion, and a sense of feeling ill-equipped or welcome to the plethora of changes around them (Victoria, 2011).

Gender. Gender plays important role in the development of disordered eating behaviors. Disordered eating is more likely to affect females than males. However, in Asian countries about 25% of cases in adolescents occur with males (Morray, 2003). Girls and boys can experience different social pressures about how they should look. Primary children are not immune to these pressures, and their attitudes and behaviors reflect adult concerns. Like many adolescents females, some girls want to lose weight and be thin and, like many adult males, some boys want to lose body fat, but increase muscle mass. Some boys try to meet unrealistically thin standards (Walsh, 2001). Males and females of all ages judge ugliness more merciless in ladies than in men. Contrasted with men, ladies are more worried about their appearance, rating their physical appearance as more critical, pondering their bodies more, and investing more time on grooming (as cited in Lancelot & Kaslow, 1994).

Education. Research evidences shows that educational group in adolescents' plays an important role in the development of disordered eating behaviors. Undergraduates and graduates with the pressure of compliance in the society inclined more to disruptive eating patterns specifically disordered eating behaviors (Rondly, 2008) Prevalence rates of eating disorders associated with education level are increasing worldwide (Donhill, 2006). Anorexia nervosa is the third most common chronic illness among adolescents (Muhlheim, 2012). The prevalence of eating

disorders among adolescents of college students in America is estimated to be higher for girls and lower for boys. In one study of American adolescents in the 5th through 12th grades, girls and boys reported engaging in both binge eating and purging behavior. However, a far higher proportion of youth report less severe symptoms of disordered eating and shape and weight concerns. The environment of educational institute, peer pressure and peer influence/competence is a major driving factor in development of risk of disordered eating (Muhlheim, 2012).

Family system. Family system in majorly effects eating patterns in adolescents. In joint family system there is a higher risk of developing eating disorders as there is more social reinforcements and pressures to develop a socially desirable weight among the multiple families and multiple family members (Doorbin, 2007). In nuclear family system, there is more risk of developing eating disorders if the peer and environment in vicinity is not accepting towards existing body-weight and appearance .Females develop disordered eating more easily as compared to males in nuclear family system, but there is no difference in prevalence of eating disorder in males and females (Knauss et al., 2007).

Birth order. Rowland (2002) searched for a relationship between birth order and anorexia nervosa. In his study, he found that those with anorexia nervosa were overwhelmingly the eldest children; however, his study just fell short of statistical significance. Conner, Johnson, and Grogan (2004) tried to duplicate his findings but failed to support Rowland. On the contrary, the two studies found an excess of later born siblings and the development of eating disorders. Findings for birth rank and anorexia have thus far proven to be inconsistent and more studies need to be conducted to determine the relevance of birth rank and anorexia. Similarly, few studies conducted have focused on birth order and bulimia. Ebert and Dolan (2000) failed to find any significant deviation from expectation in the birth order of patients with bulimia. Lacey, Gowers, and Bhat (2001) found that in small families, the bulimic was more likely to be the only or oldest child, however this held no statistical evidence. The second finding in the study is that bulimia is represented in all family sizes, but of particular interest is that all-female sibling ships were well represented, but this too did not prove to be statistically significant. There is little agreement whether birth order or the sex composition of the sibling ships had any relationship to

eating disorders. Again, more studies need to be conducted to come to any conclusions between birth order and bulimia.

Disordered Eating in Pakistan

In Pakistan, a study led in Lahore among college girls and an alternate study led in Mirpur among 271 school young ladies uncovered one instance of bulimia and no instances of anorexia, albeit five young ladies from Lahore additionally experienced incomplete disorder bulimia nervosa (Choudry, 2002). An alternate review from Lahore among 111 volunteers demonstrated an event of two instances of bulimia nervosa and an alternate two instances of eating disorders not generally detailed. (Suhail, 2002).

A study directed in Karachi on eating disorders in restorative understudies of Karachi by Memon et al. (2012) out of the 99 high-chance people, 76.76% were frightened of being overweight while 68.68% were engrossed with craving to be thinner. 55.56% were occupied with abstaining from food conduct (Memon et al., 2012). Then again, just 9% spewed in the wake of eating while 73.7% showed discretion around nourishment. Out of reported 74 high-chance people, 58 were females, 16 were guys. 53 were from age a mass 18-21, while just 21 were from age aggregate 22-25. Accordingly, discoveries report more adolescent age gathering to be more at danger. Medicinal learners of more youthful age gathering were discovered to be more defenseless. 65 were from age group18-21, while just 34 were from age bunch 22-25 (Memon et al., 2012)

Keeping such inauspicious restorative results in perspective, it is commonly disturbing that the future doctors of Karachi, inclined to such distressing conditions may be at altogether high danger of contracting eating disorders that would hamper the accessibility of trustworthy therapeutic administrations in future. The prior these disorders are diagnosed and surveyed, the better the chances are for improved treatment and better recuperation. Subsequently, we aim to attempt an illustrative study to survey the frequency of high-danger of eating disorders among medicinal learners of Karachi (Memon et al., 2012).

Moreover Pakistani ladies who live in the West and create dietary problems additionally show weight fear Thus fear of fat may be a peculiarity of anorexia

nervosa that happens in the connection of a society that exaggerates dainty horrible eating disposition and practices, and it is conceivable that as countries, for example, Malaysia, Pakistan, and India get to be more industrialized, weight fear may get to be more basic. (Mumford et al. 2001).

The nation like Pakistan where a considerable measure of issues and issues identified with wellbeing, need consideration and in spite of the neediness and ailing health, shockingly numerous females are fixated on the way they look, in some cases prompting eating disorders, for example, anorexia and bulimia. The vast majority of the females are concerned with the self-perception, which at last prompts the eating disorders in them. In a daily paper article (Daily Times, 2007) Dr. Mushtaq A Khan, a dietician and kids' expert, clarified, "This issue is expanding and is just normal in the high class of society. Numerous high school young ladies nowadays are more aware of their figures and they are attempting to duplicate the ladies they see in the West through the diverse media vehicle, keeping that in perspective, young ladies get fixated on the way they look; most eating disorders for young ladies less than 12 years old are identified with issues of malnourishment. Nonetheless, bulimia and anorexia create in the high school years, he said. Both conditions are a consequence of a refusal to keep up typical body weight trying to be thin". (Daily Times, 2007). Presently significant fragment comprises of females containing Pakistan's upper white collar class society; these are more inclined to eating disorders trying to look thin as contrasted with whatever viable section of the general public. The outcomes were a low longing, retching, feeling tired and not performing great in every day obligations. (Daily Times, 2007).

An alternate fascinating investigation of these eating disorders has been advanced by women's activist analysts. Their argument does not concentrate on the young girls and their manifestations to the extent that the restorative calling and its disposition to the 'lady malady'. It is generally acknowledged that women especially immature girls are among its primary sufferers, which is the reason these eating disorders have been named 'lady sickness'. It is evaluated that one in hundred girls and women experience the ill effects of bulimia while anorexics are a bit less regular at one in around a thousand girls. These specialists contend, for example, that eating disorders are not an advanced sickness at everything except have existed under different names for hundreds of years. Additionally, eating disorders influence young

girls, as well as more seasoned men and women too. On the other hand, specialists and guides have had a tendency to center consideration essential on young girls and their bodies. Further, this investment is centered at particular moments ever, truth be told, restorative history shows waves of premium and examination on the state of young women's wellbeing by specialists (Saleem, 2006).

There are some observational studies that attempt to test the legitimacy of a few of the cases made by women's activist in reference to the birthplace of eating disorders. As indicated by Synder and Hasbrouk (2007) found that disordered eating propensities were more basic among school girls who were traditional or concerned with sexiest roles. Ladies who relate to women's activist qualities were not as liable to have a mutilated self-perception. This discovering affirms the women's activist conviction that sexiest roles in patriarchal society cause ladies to have a lower self eateem and a loss of control bringing about eating disorder (Saleem, 2006).

Saleem (2006) found that ladies with feminine gender role anxiety are at a higher danger for eating disorders and self-perception issues or dissatisfaction. Feminine gender role anxiety is viewed as higher than regular levels of anxiety as an aftereffect of unbending after to the customary feminine gender role. This study additionally affirms the women's activist conviction that ladies who attempt to attain the social standards, of feminine conduct and magnificence are more defenseless to gaining an eating disorder.

Relationship between Gender Roles and Disordered Eating Behavior

Cheng (2014) explained that in Asian countries, there is emerging problems concerning eating patterns, and these patterns somewhat go through worse consequences like disordered eating behaviors as well as full blown eating disorders. In his study, results revealed that girls with masculine gender role are more inclined towards disordered eating behaviors such as drive for thinness, bulimia and body dissatisfaction. George and Franko (2010) explained that eating disturbances and body dissatisfaction occur to some degree in children and adolescents from all four asian countries (china, korea, maldives and india) and these countries shows prevalence of disordered eating behaviors among females.

In collectivistic cultures, femininity as a gender role is more common among females and femininity gender role is more in favour to develop disordered eating behaviors among them (Mallick, Ray, & Mukhopadhyay, 2014). Girls who carry masculine gender role on the other side also shows danger in developing disordered eating behaviors in them as compared to masculine boys (Mallick, 2014). Gender roles and eating problems have solid socio-cultural segments. Measures of gender role orientation are inseparably bound to social and verifiable ideas of fitting parts and behavior for men and ladies Dietary problems result, partially, from current societal weights for thinness that influence ladies more than men. There are various routes in which male and females vary in the vitality they put on appearance. Males and females of all ages judge ugliness more merciless in ladies than in men. Contrasted with men, ladies are more worried about their appearance, rating their physical appearance as more critical, pondering their bodies more, and investing more time on grooming (Lancelot & Kaslow, 1994).

Study directed by Williams and Ricciardelli (2001) explained that femininity in girls has been positively related to disordered eating behaviors. Feminine girls are at more risk to develop such behaviors like body dissatisfaction, bulimia, and drive for thinness. Masculinity on the hand also shows significant and positive relationship with disordered eating among female adolescents that is masculine girls are more prone to bulimi, drive for thinness and appearance concerns (Bantley, 2014). Cheng (2014) and Smolak (2005) explained that undifferentiated girls are more in danger to develop behaviors regarding their eating like bulimia, drive for thinness and body dissatisfaction as they are more anxious about their appearance.

Research studies proposed that girls are more prone to create disordered eating than boys, and feminine gender orientation is by and large considered an imperative danger element for eating issue. (Spindler & Milos, 2005). A study lead by Reiter (2009) and their discovering recommends that women were more probable than men to report larger amounts of body dissatisfaction, higher drives for thinness, and more noteworthy inconsistencies in the middle of real and craved weights, yet this relationship was not found for the dependent variable for bulimic mentality/practices. Literature recommends that there is an experimental proof of a positive association in the middle of femininity and eating issues, and the negative relationship in the middle of masculinity and eating issues. Eating disorders give off an impression of being

disorder of femininity; masculinity appears to be a defensive element, autonomously by the natural gender (Cella et al., 2013). An alternate study recommends that young boys reported altogether lower drive for thinness and social physique anxiety, and higher drive for bulkiness and self-esteem toward oneself contrasted with young girls (Brunet et al., 2010).

Literature likewise recommends that disarranged eating are predominant among school learners, particularly females, and school understudies/youthful grown-ups have one of the most noteworthy rates of weight increase in correlation with other populace bunches (Gropper et al., 2014).It is critical to recognize state of mind at the vitality of appearance (sympathy toward appearance) and attitude to real sentiments about one's appearance (body disappointment), two generally different builds.

The steady finding in the exploration on bulimia and gender role introduction is that, as with formal eating disorders, bulimia is connected with low masculinity in females. This relationship between negative self-perception and low scores on masculinity holds for men and for African American females, two gatherings who vary from Caucasian females on measures of both eating pathology and sexual orientation part introduction. (Iyon, 2002)

A study led by Johnson et al. (2004), their discoveries proposes that girls exhibited essentially more elevated amounts of drive for thinness than boys. Additionally, girls exhibited fundamentally larger amounts of body dissatisfaction than boys. An alternate study directed by Ferreira et al. (2014) on teenagers and their discoveries recommend that disordered eating expanded straightly for young girls but diminished directly for young boys. Their intervention dissects demonstrate that sexual orientation was a critical indicator of body dissatisfaction. Particularly, the negative appraisal demonstrates that body dissatisfaction was higher in young girls than in young boys and body dissatisfaction was fundamentally and decidedly connected with the young girls yet was not a noteworthy indicator of disordered eating in young men

A study led by Romero in 2008, on females, and results showed that femininity anticipated bulimia indications, and body disappointment. Results likewise showed that female sex part push anticipated bulimia side effects, and body disappointment. In Forbes et al. (2001) research, two different studies found that girls named feminine-typed or undifferentiated were more disappointed with their bodies

than were girls delegated masculine typed. Comparative results were found for males. Both studies likewise found that girls, paying little respect to gender sort, had thin standards and incredibly overestimated male inclination for thin female bodies (Forbes, 2001). An alternate study directed by Smolak and Mernen (2008) demonstrates that females having female sexual orientation part was identified with Drive for Thinness.

An alternate study directed by Hepp (2005) and his results showed that people with elevated amounts of androgyny (i.e., those scoring high on femininity and masculinity) reported lower levels of eating problem symptomatology contrasted and undifferentiated people (i.e., those scoring low on femininity and masculinity), who indicated more elevated amounts of eating problem manifestations. Study led by Forney and Ward (2013) on school understudies, and their findings recommend that school young girls who see a social environment that values slimness and affirms of disordered eating are more probable be at danger for eating issue through a stronger relationship between body dissatisfaction and disordered eating. Their result demonstrates that body dissatisfaction is connected with more prominent disordered eating when girls see the social environment as empowering and supporting of disordered eating. Interestingly, seeing that disordered eating practices are predominant does not identify with relationship between body dissatisfaction and disordered eating in school girls.

Role of Gender as a Moderator

Research on gender roles and disordered eating behaviors suggests that gender do have a moderating role in their relationship (Lopez et al., 2013). Research also suggests that those girls and boys who have conformity to traditional gender role is more associated with gender-specific risk outcomes (Mcclearly, 2005). The majority of studies of disordered eating in relation to gender role traits have found that in both women and men a high identification with feminine traits is linked to bulimia, drive for thinness and body dissatisfaction, the study also shows the moderating impact of gender between the relationship of disordered eating and gender roles (Lancelot & Kaslow, 1994; Murnen & Smolak, 1997). According to congruence models, males and females who endorse sex-typed gender expectations are also more likely to develop disordered eating behaviors than males and females who do not (Barrett &

White, 2002). Given this logic, males who identify more strongly with their traditional gender role that is masculine gender role, would be expected to engage in disordered eating behaviors more common, such as (Huselid & Cooper, 1992). In contrast, females who identify more strongly with traditional gender role that is feminine gender role would be at increased risk for engaging in disordered eating behaviors most commonly. (McCreary et al., 2005).

Bekker and Boselie (2002) found that gender do moderated the relationship of gender role and disordered eating behaviors in his study, he found that girls with disordered eating (as measured by scores on the Eating Disorders Inventory) reported both more feminine gender role and more masculine gender role on disordered eating behavior. Similarly, Thornton, Leo, and Alberg (1991) found that female undergraduates who identified strongly with either masculine or feminine gender roles were more likely to display disordered eating than were those who displayed more androgynous orientations. However, Williams and Ricciardelli (2001) reported that female college students who displayed symptoms of disordered eating showed more negative and positive feminine traits but there was no relation between disordered eating and masculine traits.

Conceptual Model

According to Liben and Bigler (2002) it has been explained that gender roles and disordered eating has a very strong relationship with each other and especially obedience to gender roles, or even challenging as well as often conflicting gender role view may also plays a very important role in the development of the disordered eating among women and men. In sample of adolescents, gender role represents an important factor for the intrapersonal development as well as interpersonal relationships along with disordered eating behavior. (Murnen & Smolak, 2006). Expressiveness probably serve as a supplementary role in boys, as the boys who exhibit more elevated quantity of the stereotypical feminine traits (as well as activities, hobbies, or appearance characteristics related to femininity) shows a great deal of gender atypical behavior in them; boys are usually learn to exhibit higher levels of stereotypical male traits, attitudes as well as behaviors and stay away from stereotypically feminine attributes (Liben & Bigler, 2002), femininity on the other hand as a gender role plays an

important role in developing disordered eating behaviors among adolescents (Gropper et al., 2014).

In the light of literature it has been seen that gender has positive relationship between gender roles and risk of disordered eating behavior among adolescents. Femininity rise as the primary characteristic of gender role orientation character in patients with eating problems, rather than androgyny demonstrated by male and female subjects without eating issues. Females without eating problems were more spurred to accomplish thinness and showed more body dissatisfaction than males (Anderson & Bulik, 2004). Research studies proposed that girls are more prone to create disordered eating than boys, and female gender orientation is by and large considered an imperative danger element for disordered eating (Spindler & Milos, 2005). A study lead by Reiter in 2009 and their results recommends that women were more probable than men to report larger amounts of body dissatisfaction, higher drives for thinness, and more noteworthy inconsistencies in the middle of real and craved weights, yet this relationship was not found for the dependent variable for bulimic mentality/practices. A study led by Johnson et al. (2004) their results shows that feminine girls exhibited essentially more elevated amounts of drive for thinness and body dissatisfaction than boys. Additionally, feminine girls also exhibited fundamentally larger amounts of body dissatisfaction than boys.

Rationale of the study

Traditionally, disordered eating behavior has been viewed as a “women’s issue.” Research certainly supports this notion that the female adolescents may be more vulnerable and prone to many aspects of the disordered eating behaviors than male adolescents (Johnson et al., 2004; Milligan & Pritchard, 2006). However, many researchers are beginning to suggest that it may not be that simple scenario. In addition to the fact that suggests that gender roles possibly will affect the certain type of disordered eating behaviors (Anderson & Bulik, 2004; Smolak & Levine, 1994; Wilcox, 1997),

Research on gender roles with many other variables are extensively studied in pakistan (Anila, 1992; Ali et al, 2011; Aziz & Kamal, 2012; Bukhari, 2013; Haque, 2009) and the relationship between gender roles and disordered eating behavior has been extensively studied in west (Mernen & Smolak, 1997; Ferreiro et al., 2014;

Milligan & Pritchard, 2006; Ybrandt, 2007; Striegel-Moore & Bulik, 2007) but the evidence that precisely that which of the possible dimension of gender role (i.e., masculinity, femininity, androgyny, undifferentiated) are most influential has been mixed (Anderson & Bulik, 2004; Heaner & Walsh, 2013). So the current research will explore the relationship of gender roles with disordered eating behaviors in Pakistani perspective and indigenously. It has been studied in west (Barrett & White, 2002; Lopez et al., 2013; Mcclearly, 2005) that gender do moderates the relationship of gender roles and disordered eating behaviors. Asian researches (Ninder & Nipson, 2007; Ravinder et al., 2000;) studied more about gender differences in eating behaviors and gender roles, so the present study will explore the moderating role of gender in the relationship between gender role and disordered eating behavior that how males and females having different gender role traits inclined to more disordered eating behaviors.

Literature on gender roles and disordered eating behaviors and associated health outcomes is relatively less developed in Pakistan specially for main stream adolescents (i.e., college students), particularly Pakistani youth. Study lead by Muazzam and Khalid (2008) on disordered eating behaviors with an overview of asian cultures explains that the prevalence of disordered eating in asian culture is much greater than that of clinically diagnosed eating disorders. It has been estimated that the majority (64-68%) of college- aged women manifest some sort of disordered eating behavior. There is a dire need to promote awareness among health professionals and general population about serious health consequences of disordered eating behaviors in Asian cultures specially in Pakistan.

Age, gender, education, and BMI play important role in developing disordered eating among adolescents (Rieter, 2007 & Muhlheim, 2012), so present research will explore the role of age, gender, education, family system, birth order, body mass index, meal per day in relation between gender roles and disordered eating behaviors. Although disordered eating can occur across a broad age range including childhood, adolescence as well as adulthood and older adulthood it is examined that the disordered eating behaviors are much more common during the adolescence and early 20s (Mayo, 2014), the present research will explore the role of age in relation with disordered eating behaviors.

Chapter II

METHOD

The aim of the study was to explore the relationship between gender roles and disordered eating behavior among adolescents. Further study also explored the moderating role of gender on the relationship between gender roles and disordered eating behaviors among adolescents. It also explored the risk of bulimia, body dissatisfaction and drive for thinness in individuals having specific gender typed roles among adolescent boys and girls.

Objectives

Following are the main objectives of the present study

1. To find out the relationship between Disordered Eating Behavior i.e. bulimia, drive for thinness, body dissatisfaction and Gender roles i.e., muscularity and femininity among adolescents.

2. To find out the differences on disordered eating behavior (i.e. bulimia, drive for thinness, body dissatisfaction) on gender roles groups i.e. androgyny and undifferentiated.

3. To find out the demographics (i.e., age, gender, educational level, type of institution, birth order, family system, body mass index groups, and no of meal per day) related differences on the gender role (i.e., muscularity, femininity, androgyny, and undifferentiated) and disordered eating behavior (i.e. bulimia, drive for thinness, body dissatisfaction) among adolescents.

4. To find out the moderation of gender in the relationship between gender roles (i.e., muscularity, femininity, androgyny, and undifferentiated) and disordered eating (i.e. bulimia, drive for thinness and body dissatisfaction) among adolescents.

Hypotheses

The hypotheses of this study are as follows:

1. There is positive relationship between gender roles (masculinity, femininity) and disordered eating behaviors (bulimia, drive for thinness and body dissatisfaction).
2. Feminine girls scores higher on bulimia, body dissatisfaction and drive for thinness as compared to feminine boys.
3. Masculine girls score higher on bulimia, drive for thinness and body dissatisfaction as compared to masculine boys.
4. Undifferentiated girls scores higher on bulimia, body dissatisfaction and drive for thinness as compared to undifferentiated boys.
5. Girls scores higher on bulimia, body dissatisfaction and drive for thinness as compared to boys.
6. Overweight individuals score higher on bulimia, drive for thinness and body dissatisfaction as compared to underweight and normal weight individuals
7. Mid-adolescents score higher on bulimia, drive for thinness and body dissatisfaction as compared to late adolescents.

Operational Definitions of Variables

Gender Roles

Gender roles were assessed by Bem Sex Role Inventory (Bem, 1974) with the assist of gender schema theory and explained gender roles as a set of qualities or traits in individuals that makes him sex-typed (masculine-feminine) or cross-sex typed (androgynous or undifferentiated), these traits show their gender roles high on either dimension (masculine or feminine) or higher on both and lower on both (androgynous and undifferentiated).

Masculinity. Masculinity is based on extent to which a person possess masculine traits or characteristics as explained by Bem (1974), the more a individual possess masculine traits , the more he has masculinity. Masculinity gender role has been assessed by Bem Sex Role Inventory (Bem, 1974). It has 20 items consisting of masculine traits. An individual who scores high on these masculine traits

(masculinity) and low on femininity is classified as having a masculine gender role (Bem, 1974).

Femininity. Femininity is based on extent to which a person possess feminine traits or characteristics as explained by Bem (1974), the more a individual possess feminine traits , the more he has femininity. Femininity gender role has been assessed by Bem Sex Role Inventory (Bem, 1974). It has 20 items consisting of feminine traits. An individual who scores high on these feminine traits (femininity) and low on masculinity is classified as having a feminine gender role.

Androgyny. Androgyny is based on extent to which a person possess both masculine and feminine traits or characteristics as explained by Bem (1974), the more a individual possess both masculine and feminine traits , the more he has androgyny. Androgyny gender role has been assessed by Bem Sex Role Inventory (Bem, 1974). It includes both items of masculinity and femininity. According to BSRI, an individual who scores high on both the dimensions (i.e., masculinity and femininity) will be an androgynous individual having androgynous gender role.

Undifferentiated. Undifferentiated gender role is based on extent to which a person neither possess masculine traits nor feminine characteristics as explained by Bem (1974), the less a individual possess masculine and feminine traits , the more he is undifferentiated. Undifferentiated gender role has been assessed by Bem Sex Role Inventory (Bem, 1974). It includes both items of masculinity and femininity. According to BSRI, an individual who scores high on both the dimensions (i.e., masculinity and femininity) will be an undifferentiated individual having undifferentiated gender role.

Disordered Eating Behaviors

On the other hand disordered eating behaviors was assesed by Eating Disorders Inventory made by Garner (2004), he explained that disordered eating can be assessed by this inventory and its subscales bulimia , drive for thinness and body dissatisfaction will serve as a refferal form to cater disordered eating in normal population. It assesses discontentment with the overall shape and size or regions of the body that are extraordinary concern to those who have eating disorders such as the stomach, hips, thighs and buttocks (Garner, 2004).

Body Dissatisfaction. The body dissatisfaction scale consists of 10 items that assess discontentment with the overall shape and size of regions of the body that are of extraordinary concern to those who have eating disorders (i.e., stomach, hips, thighs, buttocks). Total raw scores from *0-7* indicate lower body dissatisfaction, *8-30* indicate moderate and *31-40* indicate higher body dissatisfaction (Garner, 2004).

Drive for Thinness. The drive for thinness construct has been described as one of the cardinal features of eating disorders and has been considered as assestial criterion for a diagnosis according to many classification schemes. The seven item in the drive for thinness scale of EDI (Garner, 1983 assess an extreme drive to be thinner, concern with dieting, preoccupation with weight gain. The referral criteria is met for drive for thinness if the individual's calculated drive for thinness total raw score from the scoring sheet are equal to or greater than the respective drive for thinness critical values circles in the table given in the subscale. The table has two age appropriate sides or columns, one column contains the individual's BMI refferal threshold or calculated BMI and the other column has the total raw score of drive for thinness (Garner, 2004)

Bulimia. The bulimia scale assess the tendency to think about, and to engage in bouts of uncontrollable overeating (i.e., binge eating). The eight items on this scale assess concerns about binge eating and eating in response to being upset. Similar to drive for the thinness, the referral criteria is met for bulimia if the individual's calculated bulimia total raw score from the scoring sheet are equal to or greater than the respective bulimia critical values circled in the table given in the subscale. The table has two age appropriate sides or columns, one column contains the individual's BMI referral threshold or calculated BMI and the other column has the total raw scores of bulimia (Garner, 2004)

Instrument

Modified Bem Sex-role Inventory (BSRI). In this study modified version of BSRI that was developed by Saleem (2010) was used , the modified scale rephrased the 7 items of the Bem Sex Role Inventory, 2 from the feminine and 5 from the neutral subscale the reliability coefficient for masculinity and femininity subscales were .83 and .73 respectively (Saleem, 2010). It consists of 60 personality characteristics on which respondents are asked to rate themselves on the 7-point rating

scale ranging from 1 (*never or almost never true*) to 7 (*always or almost always true*). Twenty of the items are stereotypically feminine, 20 are stereotypically masculine, and 20 are considered filler items by virtue of their gender neutrality. The 20 neutral items were used to constitute a measure of social desirability in response. Item number 3 conscientious was rephrased as careful, item number 14 compassionate was rephrased as kind, item number 24 concieted was rephrased as arrogant, item number 30 conventional was rephrased as traditional, item number 42 thearetical was rephrased as artificial, item number 51 solemn was rephrased as serious and item number 50 Gullible was rephrased as innocent. For masculinity, score ranges from 20-140. For femininity, score ranges from 20-140. There is no cutoff score for masculinity and femininity subscales.

For scoring, hybrid method was used; hybrid method classifies subjects as four groups based on their gender roles. Subjects were initially classified as feminine, masculine, or potentially androgynous on the basis femininity-minus-masculinity (F-M) difference score, a score of +10 and -10 was suggested as the cutoff point for demarcating the three groups. The F-M difference score was difference between two standardized t-scores (M = 50; $S.D$ = 10); a score of +10 and -10 was thus represents a difference between femininity and masculinity approximately equal to one standard deviation. The potentially androgynous group was then further categorized as androgynous or undifferentiated on the basis of a median split. Subjects in that group whose femininity and masculinity scores are both above the mean were defined as androgynous; all other subjects in the group were defined as undifferentiated. The undifferentiated group thus includes a number of subjects with small difference scores whose femininity and masculinity scores happen to fall on opposite sides of their respective means. Lowest score range was 1 and highest score range was 7 for each individual. There was no negative item in this scale with no reverse scoring. Higher score on each dimension shows higher degree of their respective gender role (i.e., masculinity, femininity, androgyny, undifferentiated) of the individual (BSRI, 1974).

Eating Disorder Inventory (EDI-3). The original Eating Disorder Inventory was developed by Garner, Olmstead and Polivy (1983). But was revised by Garner (1991) as the EDI-2 and revised again as the EDI-3 in 2004 (Garner, 2004). Conceptual refinements and psychometric properties were improved in the EDI-3,

The three primary scales (Drive for Thinness, Body Dissatisfaction, and Bulimia) are called the Eating Disorder Risk scales were used in the present study as they assess symptomatic patterns of disordered eating behaviors (Davies, 1995). Based on research , Garner (2004) indicates that high scores on these three scales placed and individual at increased risk for developing an eating disorder. An eating disorder risk composite score can be calculated by combining the Drive for Thinness, Body Dissatisfaction and Bulimia scores. These composite scores provide a global measure of the three constructs that measure disturbed eating directly.

Body dissatisfaction subscale consists of 10 items related to body shape and focuses on the construct of body dissatisfaction. Items in this scale are 2, 6, 8, 10, 13, 16, 17, 21, 22, 14 that ranges from 0 (*always*) to 4 (*never*), score ranges from 0 to 40. High scores on this subscale shows higher body dissatisfaction. Reverse scored items of this scale are 2, 6, 16, 17, 22 Bulimia scale consists of eight items which assess concerns regarding the presence of thoughts and behaviors regarding binge eating such as eating large amounts of food in secret in response to binge emotionally upset (Garner, 2004). Items of the scales are 3, 4, 12, 15, 18, 20, 23, 25 that ranges from 0 (*always*) to 4 (*never*). Reverse items of the bulimia scale are 3, 4, 12, 15, 18, 20, 23, 25. Score ranges from 0 to 32. High score on bulimia shows higher bulimia as a disordered eating behavior. Drive for thinness scale consists of seven items which assesses an extreme desire to be thinner, concern with dieting, preoccupation with weight and dieting, and an intense fear of gaining weight. Items of drive for thinness scale are 1, 5, 7, 9, 11, 14, 19 Score ranges from 0 (*always*) to 4 (*never*). Reverse items are 5, 7, 9, 11, 14, 19. Score ranges from 0 to 28. High score on drive for thinness shows higher body dissatisfaction as a disordered eating behavior. High scores on each dimensions (i.e., bulimia, drive for thinness and body dissatisfaction) shows higher risk of eating disorders.

Body Mass Index (BMI). As body mass index may be seen as an objective measure of weight, this was calculated for each participant. The BMI is a measure of nutritional status derived from the following formula: weight (kg) / height^2 (meters) (Szabo, 2002). According to BMI, a value below 18.5 is regarded as underweight, 18.5 to 24.9 is regarded as optimal or normal weight, a value of 25.0 to 29.9 is regarded as overweight and a value above 30.0 as obese (Nieman, 2003).

Sample

The sample for this research was comprised of 340 adolescents with age range from 12 to 19 years (M = 38.82 SD = 8.91) girls (n = 170) and boys (n =170). The students were from schools and colleges of Islamabad and Rawalpindi. Both the government and private institutions was considered for obtaining the sample. As the sampling technique was convenient sampling, the data from eight colleges and schools was taken namely Islamabad Model College for girls F-7/2 Islamabad (n = 50) , Islamabad Model College for Girls F-7/4 Islamabad (n = 40), Islamabad Model College for Girls I-8/3 Islamabad (n= 35), Islamabad Model College for Boys I-8/3 Islamabad (n = 50) , Overseas Pakistan Foundation for Boys I-8/3 Islamabad (n=50), Islamabad Model College for Boys f-10/3 Islamabad (n = 35), Punjab College of Commerce, 6th road Rawalpindi (n= 40) , Punjab College of Information Technology (PCIT), F-8 Islamabad (n= 40).

Demographic Profile of the Sample

Table 1

Demographic Profile of the Sample (N=340)

Demographic variables	*f*	%age
Gender		
Boys	170	50%
Girls	170	50%
Age		
Middle adolescents	120	35.29%
Late adolescents	220	64.70%
Educational level		
F.A/F.SC	150	48.11%
B.A/B.SC/B.S	190	51.88
Type of Institution		
Government	270	79.41%
Private	70	20.58%
Family System		
Nuclear	232	68.23%
Joint	192	56.47%

No of Meal Per Day		
1-3 times	230	67.64%
4-6 times	97	28.52%
7-9 times	13	3.82%
Body Mass Index Groups		
Under weight	130	38.23%
Normal weight	180	52.94%
Overweight	30	8.82%
Birth Order		
First born	110	32.35%
Middle born	95	27.94%
Last born	135	39.70%

Table 1 shows the demographics of the total sample. It represents the demographic profile of the sample with regard to their gender, age, educational level, type of institution, family system, father's education, mother's education, and amount of meal per day, body mass index and birth order. As the table indicates, almost equal representation is there for both boys and girls. For age level, 120 girls are from middle adolescence age and 220 are from late adolescent age. The sample was distributed on education level as 150 from F.A/F.SC and 190 from B.A/B.SC/BS. Moreover, 270 were from government institution and 70 were from private institution. The sample represented the family system as 232 from nuclear system and 192 from joint system. The distribution of number of meal per day in the sample indicates that 230 are having 2-3 times meal a day, 97 are having 4-6 times meal per day and 13 were having 7-9 times meal a day. Body mass index on the other hand shows that in the sample 130 are underweight, 180 are normal weight and 30 are overweight individuals. Distribution of sample in birth order shows that 110 are first born, 95 are middle born and 135 are last born.

Procedure

Data collection was conducted through group administration of the scales upon the school and college going students from Islamabad and Rawalpindi; after approval from the heads of their institution. The participants were approached using

the convenient sampling technique. Informed consent was taken from each student. They were given the instructions properly both verbally and in written text above the scales. In case of any ambiguity further guidance was provided. The participants were insured that their responses would be kept confidential and there was no right or wrong options written in the scale. The participants were then provided a copy of the demographic sheet, the modified version of Bem Sex Role Inventory (BSRI), and Eating Disorder Inventory (EDI-3). The participants were instructed to fill the scales keeping in view about their selves. Participants were thanked for their participation. Appropriate statistical tests were applied for the analysis of the data collected from the sample. The participants were determined to know the results through possible means.

Chapter III

RESULTS

The present research was aimed to explore the relationship between gender roles and disordered eating among adolescents. Appropriate statistical procedures were used to analyze the data. All analyses was done through SPSS-21 software. The internal consistencies of the scales were determined by the help of Cronbach alpha reliability coefficient. Analysis like *t-test* was applied to provide the mean differences on femininity, masculinity and undifferentiated groups across gender. ANOVA test was applied to provide differences between body mass index on bulimia, drive for thinness, and body dissatisfaction. Chi-squared test was used to find out differences along age, gender, education, type of institution, birth order, education of father and mother, family system, birth order and meal per day. Hierarchical regression analysis was done as per theoretical framework to compare the strongest predictor in gender roles (i. e., masculinity, femininity) in developing disordered eating behavior. Moderation was computed to explore the moderating role of gender in relationship between gender roles and risk of eating disorders if the results of mean differences would be significant. The results are tabulated as follows:

Reliabilities and Descriptive Statistics on Measures

Alpha reliability coefficients and descriptive statistics (N = 340) on BSRI and its subscales that is masculinity and femininity, and EDI-3 and its subscales that is Bulimia, drive for thinness and body dissatisfaction were computed on the total sample (see Table 2).

Table 2

Alpha Reliabilities of Bem Sex Role Inventory, Masculinity, Femininity and Eating Disorder Inventory-3 RF, Bulimia, Drive for Thinness, Body Dissatisfaction (N = 340)

Scales	No of items	α	*M(SD)*	Ranges		*Skew*	Kur
				Potential	Actual		
Masculinity	20	.72	22.02(2.19)	0-96	0-44	.42	-2.35
Femininity	20	.68	18.01(9.28)	0-28	0-18	-.14	-1.94
EDI-3	25	.82	10.03(3.49)	26-133	41-123	-.32	-.18
Bulimia	8	.72	4.90(3.50)	11-28	12-32	-.14	-.39
Drive for Thinness	7	.71	6.1(2.49)	6-20	12-28	-.13	-.62
Body Dissatisfaction	10	.75	7.11(6.77)	5-20	6-40	-.21	-.75

Note. BSRI = Bem Sex Role Inventory, EDI-3 = Eating Disorders Inventory-3.

Table 2 shows that all the mentioned reliabilities were found to be adequate. In case of reliability the acceptable range lies between .65 to .90. "A reliability of .65 is a minimum for a good test" (Kline, 2000, p.13). So, the alpha reliability coefficients are acceptable and satisfactory. Overall scales are good and acceptable. Mean and standard deviation was computed on the transformed scores as the sum obtained was divided by the total number of items. The mean values of all the subscales of masculinity and femininity shows that the maximum value is obtained on the masculinity subscale that is 22.02 and the minimum is for femininity subscale that is 18.01 that represent more reporting of masculinity as a gender role in present sample. For EDI-3 subscale has highest *SD* value that is 6.77 that reporting much variability in responses and bulimia has lowest *SD* value that is 1.50 that represents homogeneity in responses of sample.

For EDI-3 maximum values are obtained on the body dissatisfaction and drive for thinness that shows most prevalent form of eating disorder risk in our society is body dissatisfaction and drive for thinness and *SD* is high for body dissatisfaction and bulimia that shows more individual differences among sample in reporting. As far as the skewness and kurtosis of data are concerned values for BSRI and EDI-3 are negative which shows that high scores are present in the data but skewness and kurtosis for BSRI and EDI-3 and all its subscales ranges between +1 to -1 that shows normal distribution of data. According to Kim (2013).If sample is greater than 300 then absolute value for skewness less than 2 or an absolute value for kurtosis less than 7 can be used as normal distribution of data and parametric testing can be done on it.

Group Distribution Based on Gender Roles of Bem Sex Role Inventory

Descriptive statistics on Bem sex role inventory's categorical subscales were calculated by computing their frequency and percentages for the main sample of adolescents (*N* = 340). The results revealed are presented in the following table after the calculation.

Table 3

Descriptive Analysis of Group Distribution Based on Gender Roles (N=340)

Variables	*F*	%	*M*	*SD*	Range	
					Min	Max
Androgyny	25	7.35	29.37	2.63	0	49
Undifferentiated	37	10.88	36.42	5.41	0	55

Note: *f* = Frequencies and % = Percentages.

Table 3 shows the descriptive analysis of the all categorical variables of BSRI i.e., androgyny and undifferentiated, in the form of frequencies and percentages. The division of androgynous individuals in the overall sample is 25 and undifferentiated individuals present

in the sample are 37. The ranges explain the highest and lowest value on the scale obtained. The lowest score is zero for all scales. The highest score for scale is on undifferentiated. The scale of undifferentiated has highest mean value (*M=36.42)*. The scale of androgyny has highest *SD* value (*SD=20.63)*. The data is normally distributed.

Correlation between Gender Roles and Disordered Eating

Pearson correlation was computed to evaluate the relationship between gender roles and disordered eating behavior along with the domains for each. Results revealed through this analysis are as following.

Table 4

Pearson Correlation between Gender Roles (Masculinity, Femininity) and Disodered Eating Behaviors (Bulimia, Drive for Thinness and Body Dissatisfaction) among Total Sample (N=340)

Sr. No. Scales	1	2	3	4	5	6
1. Masculinity		.94**	.845**	.624**	.514**	.861**
2. Femininity			.83***	.715**	.699**	.821**
3. Bulimia				.649**	.847**	.796**
4. Drive for thinness					.749**	.827**
5. Body dissatisfaction						.753**
6. EDI-3						

****p* <.001, ***p* < .01

Table 4 shows significant positive correlation between gender roles and disordered eating behaviors. Table also shows significant positive correlation between all the subscales of gender roles and disordered eating behavior. Masculinity and femininity subscale on the revealed significant positive correlation with bulimia, drive for thinness and body dissatisfaction and EDI-3 total score. The results varifying the hypothesis that there is a positive relationship between gender roles and disordered eating behaviors.

Gender Roles and Disordered Eating Behaviors

Mean differences were explored across various groups of sample based on the data generated through the gender roles of adolescents. The differences in these

groups were assessed among boy and girls of masculinity group, femininity group and undifferentiated gender role group of adolescents.

Table 5

Means, Standard Deviation and t-value on Masculinity, Femininity, Undifferentiated Group and Overall Adolescent Sample with Bulimia, Drive for Thinness and Body Dissatisfaction across Gender (N=340).

	Masculinity group (*n* = 158)								
	Boys (*n* = 74)		Girls (*n* = 84)				CI 95%		
Scales	*M*	*SD*	*M*	*SD*	*t*	*df*	*LL*	*UL*	Cohen's *d*
Bulimia	21.21	4.12	25.14	10.2	9.15***	156	.11	.56	.62
Drive for Thinness	10.22	3.32	15.22	4.44	6.24*	156	1.2	2.6	.59
Body Dissatisfaction	11.51	2.57	13.55	3.86	8.23**	156	2.2	3.8	.51
EDI-3	43.22	10.31	55.07	17.2	22.15**	156	5.5	11.22	.61
	Femininity group (*n* = 120)								
	Boys (*n* = 64)		Girls (*n* = 56)						
Bulimia	12.23	4.56	18.5	4.23	7.82***	118	4.12	8.22	.64
Drive for Thinness	11.08	6.61	16.1	8.82	9.23*	118	1.34	2.41	.50
Body Dissatisfaction	10.22	5.72	10.4	3.14	3.33***	118	3.12	3.89	.61
EDI-3	35.18	15.91	45.3	16.09	10.02**	118	9.22	14.08	.60
	Undifferentiated group (*n* = 37)								
	Boys (*n* = 20)		Girls (*n* = 17)						
Bulimia	3.23	6.88	6.91	6.69	6.70***	35	2.56	5.21	.60
Drive for Thinness	5.01	4.91	6.11	4.74	8.18*	35	.12	1.58	.35
Body Dissatisfaction	4.42	2.02	7.14	9.18	5.43**	35	.42	3.23	.57
EDI-3	13.31	12.10	20.45	20.34	20.79*	35	3.85	9.92	.61
	Total adolescent sample group (*n* =340)								
	Boys (*n* =150)		Girls (*n* =150)						
Masculinity	14.14	2.21	15.15	5.90	14.38***	338	1.11	3.41	.57
Femininity	15.21	5.89	18.91	4.83	15.56**	338	2.47	5.35	.59
Bulimia	4.02	3.95	4.32	2.68	10.08***	338	2.97	4.42	.62
Drive for Thinness	7.61	3.14	9.70	2.89	11.91*	338	3.26	4.55	.58
Body Dissatisfaction	16.77	4.29	14.68	2.89	5.26***	338	1.30	2.86	.64
EDI-3	26.23	7.71	29.28	8.28	21.19*	338	4.43	7.22	.60

Note: ***p <.001, **p < .01, *p < .05, LL = lower limit, UL = upper limit.

Table 5 shows means, standard deviation and t-value on masculinity group with bulimia, drive for thinness and body dissatisfaction across gender. As the table

indicates that girls show significant differences on masculinity scale as compared to girls, high mean value of girls on bulimia (*M*=23.14) indicates more masculinity in girls in this group. Result shows that masculine girls show more bulimia and drive for thinness as compared to masculine boys. The results are verifying the hypothesis that masculine girls score higher on bulimia, drive for thinness and body dissatisfaction as compared to masculine boys.

Table also shows that compared to boys, girls shows more significant differences on femininity group, high mean value of girls on bulimia, drive for thinness and body dissatisfaction indicates more femininity in girls in relation to disordered eating behavior. This means that feminine girls show more body dissatisfaction, drive for thinness and bulimia as compared to feminine boys. The results are verifying the hypothesis that feminine girls scores higher on bulimia, drive for thinness and body dissatisfaction as compared to feminine boys

Table also shows that as compared to boys, girls shows more significant differences on undifferentiated group, high mean value of girls on bulimia scale (*M*=6.91) indicates more undifferentiated girls positively related to disordered eating behavior that is bulimia in this group. Girls also shows more significant differences on drive for thinness that shows more undifferentiated girls are positively related to disordered eating behavior and more drive for thinness as compared to undifferentiated boys and girl again on the other hand has high mean value on body dissatisfaction (*M*=7.14) that shows that undifferentiated girls are more scores on body dissatisfaction as compared to undifferentiated boys. The results are verifying the hypothesis that undifferentiated girls scores higher on bulimia, drive for thinness and body dissatisfaction as compared to undifferentiated boys.

On overall adolescent sample, gender differences are significant showing that on overall adolescent sample group girls shows more bulimia and drive for thinness as compared to boys and boys shows more body dissatisfaction as compared to girls. The results are partially verifying the hypothesis that girls scores higher on bulimia, drive for thinness and body dissatisfaction as compared to boys. As the results shows significant differences across gender, these results give this study a sign to further explore the moderation impact of gender in relation between gender roles and disordered eating behaviors. So with the help of these significant results the study will explore the moderating impact of gender.

Role of Demographics on Gender Roles and Disordered Eating Behaviors

Mean differences were explored across various groups of sample based on the data generated through the demographics of adolescents. The groups thus formed were on the basis of differences in gender, age, institutions, education, and family system. The differences in these groups were assessed through independent sample t-test.

Comparison of mid-adolescents and late adolescents. The mean differences for middle adolescents were compared with the late adolescents on bulimia , drive for thinness and body dissatisfaction. Through independent samples t-test the results revealed are as following.

Table 6

Comparison between Middle Adolescents and Late Adolescents on Bulimia, Drive for Thinness and Body Dissatisfaction (N = 340)

	Age								
	Mid Adolescents (*n*=120)		Late adolescents (*n*=220)				CI 95%		
Scales	*M*	*SD*	*M*	*SD*	*t*	*p*	*LL*	*UL*	Cohen's *d*
Masculinity	13.23	5.10	12.91	3.33	11.42	.51	.28	1.19	3.1
Femininity	14.49	4.93	13.22	3.61	11.93	.23	.10	2.11	3.8
Bulimia	4.22	3.93	4.09	3.81	3.10	.92	.99	1.72	2.3
Drive for Thinness	4.70	3.55	4.22	3.62	3.49	.64	.94	6.61	2.1
Body Dissatisfaction	15.88	3.58	15.65	3.91	5.40	.54	.61	1.08	3.3
EDI-3	24.21	9.71	24.11	8.83	12.11	.14	.21	3.33	3.9

Note: ***p <.001, **p < .01, *p < .05, LL = lower limit, UL = upper limit. *df* = 338.

The results of Table 6 shows comparison of middle adolescents and late adolescents on bulimia, drive for thinness and body dissatisfaction and results reveal the mean differences in the group of adolescents divided on the basis of their age. These differences were based on the scores for bulimia, drive for thinness and body dissatisfaction. For total adolescent sample table shows non significant differences of middle adolescents on the bulimia, drive for thinness and body dissatisfaction that are

subscales of EDI-3 as compared to late adolescents. The results are verifying the hypothesis that middle adolescents have more bulimia, drive for thinness and body dissatisfaction as compared to late adolescents.

Comparison of level of education. The mean differences for intermediate were compared with the undergraduates on bulimia, drive for thinness and body dissatisfaction. Through independent samples t-test the results revealed are as following.

Table 7

Comparison between Level of Education on Bulimia, Drive for Thinness and Body Dissatisfaction (N = 340)

	Education								
	F.A/F.SC (*n*=150)		B.A/B.SC/B.S (*n*=190)				CI 95%		
Scales	*M*	*SD*	*M*	*SD*	*t*	*p*	*LL*	*UL*	Cohen's d
Masculinity	15.22	5.10	13.02	4.91	11.92	.21	.021	3.21	.23
Femininity	11.02	1.92	9.91	3.02	10.41	.36	.291	3.33	3.1
Bulimia	5.55	2.92	2.14	3.16	4.61	.52	-2.84	2.13	.38
Drive for Thinness	4.25	5.50	2.20	1.41	5.57	.70	-3.05	1.22	.23
Body Dissatisfaction	12.82	5.21	10.61	2.04	8.14	.11	-5.09	3.21	.32
EDI-3	21.22	8.91	15.91	3.39	19.20	.10	-.10	2.22	.42

Note: ***p <.001, **p < .01, *p < .05, LL = lower limit, UL = upper limit. *df* = 338.

The results of Table 7 reveal the mean differences in the groups of adolescents divided on the basis of level of education. These differences were based on the scores for bulimia, drive for thinness and body dissatisfaction. For total adolescent sample table shows non significant differences for the individuals of F.A/F.SC and B..a/B.sc/ B.s on the bulimia and body dissatisfaction that are subscales of EDI-3. All of these variables are shown to be higher among the adolescents of F.A/F.SC as compared to B.A/B.SC/BS. Cohen's *d* indicating effect size of all three subscales of EDI-3 that is for drive for thinness the effect size is small among total adolescents as shown in the table.

Comparison of public and private institutions. The mean differences for adolescents from public institutions were compared with the adolescents from private institutions on bulimia, drive for thinness and body dissatisfaction. Through independent samples t-test the results revealed are as following.

Table 8

Comparison between Public and Private Institution on Bulimia, Drive for Thinness and Body Dissatisfaction (N = 340)

	Type of institution								
	Public (*n*=270)		Private (*n*=70)				CI 95%		
Scales	*M*	*SD*	*M*	*SD*	*t*	*p*	*LL*	*UL*	Cohen's *d*
Masculinity	7.19	2.86	8.19	4.15	10.6	.04	2.84	4.15	.57
Femininity	5.26	4.10	4.38	1.35	8.59	.02	3.05	4.22	.54
Bulimia	3.79	3.92	5.84	3.16	3.67	.05	-2.84	2.13	.58
Drive for Thinness	4.21	3.50	6.35	3.45	4.59	.70	-3.05	1.22	.23
Body Dissatisfaction	14.8	3.22	18.98	4.08	9.12	.00	-5.09	3.21	.62
EDI-3	23.7	9.12	25.84	12.1	23.6	.05	-2.84	2.13	.58

Note: ***p <.001, **p < .01, *p < .05, LL = lower limit, UL = upper limit. df = 338.

The results of Table 8 reveal the mean differences in the groups of adolescents divided on the basis of public and private sector institutions. These differences were based on the scores for bulimia, drive for thinness and body dissatisfaction. For total adolescent sample table shows significant differences for the individuals of public and private institutions on the bulimia and body dissatisfaction that are subscales of EDI-3. All of these variables are shown to be higher among the adolescents of private institutions as compared to public institution. Cohen's *d* indicating effect size of all three subscales of EDI-3 that is for drive for thinness the effect size is small while bulimia and body dissatisfaction have medium and satisfactory effect size among total adolescents as shown in the table.

Comparison of nuclear and joint family system. The mean differences for adolescents from public institutions were compared with the adolescents from private institutions on bulimia, drive for thinness and body dissatisfaction. Through independent samples t-test the results revealed are as following

Table 9

Comparison between Nuclear and Joint Family System on Bulimia, Drive for Thinness and Body Dissatisfaction (N = 340)

	Family system								
	Nuclear (*n*=232)		Joint (*n*=192)				CI 95%		
Scales	*M*	*SD*	*M*	*SD*	*t*	*p*	*LL*	*UL*	Cohen's *d*
Masculinity	4.18	1.05	5.40	2.00	11.0	.04	1.37	3.70	.52
Femininity	4.26	2.10	6.13	3.15	4.91	.49	-2.66	1.96	.35
Bulimia	3.88	4.25	4.43	3.60	1.31	.04	-2.37	3.11	.54
Drive for Thinness	3.67	3.60	5.53	3.35	4.91	.49	-2.66	1.96	.45
Body Dissatisfaction	15.10	2.83	16.28	4.42	2.89	.00	-1.98	3.79	.63
EDI-3	19.24	5.10	20.91	6.12	22.12	.00	1.78	6.79	.63

Note: ***p <.001, **p < .01, *p < .05, LL = lower limit, UL = upper limit. *df* = 338.

The results of Table 9 shows comparison between nuclear and joint institution adolescents on bulimia, drive for thinness and body dissatisfaction. Results of table reveal the mean differences in the groups of adolescents divided on the basis of nuclear and joint family systems. These differences were based on the scores for bulimia, drive for thinness and body dissatisfaction. For total adolescent sample table shows significant differences for the individuals of nuclear and joint family systems on bulimia, drive for thinness and body dissatisfaction that are subscales of EDI-3. All of these variables are shown to be higher among the adolescents of joint family system as compared to nuclear family system. Cohen's *d* indicating effect size of all three subscales of EDI-3 that is for drive for thinness the effect size is small while bulimia and body dissatisfaction have high effect size among total adolescents as shown in the table.

Distribution of Demographics on Gender Role Groups

Distribution of demographics was explored across various groups gender roles that is androgyny and undifferentiated based on the data generated. The groups thus formed were on the basis of differences in gender, age, institutions, education, and family system, meal per day, body mass index and birth order. The differences in these groups were assessed through chi-square analysis.

Table 10

Chi Square Analysis Indicating Differences between Androgyny and Undifferentiated Gender Role Groups on Gender, Age, Education, Type of Institution, Family System.BMI, Birth Order, and Meal Per Day (N=340)

Variables	Androgyny (*n*=25)	Undifferentiated (*n*=37)	χ^2	*p*
Gender				
Girls	15 (60%)	18(48.64%)	2.61	.04
Boys	10(40%)	19(51.35%)		
Age				
Mid-adolescents	13(52%)	15(40.54%)	3.01	.03
Late-adolescents	12(48%)	22 (59.45%)		
Education				
F.A/F.SC	9 (36%)	23 (62.16%)	9.54	.02
B.A/B.SC/BS	16 (64)	14 (37.83%)		
Type of institution				
Public	15(60%)	25 (67.56%)	5.03	.16
Private	10 (40%)	12 (32.43%)		
Family system				
Nuclear	10(40%)	20 (54.05%)	.32	.95
Joint	15(60%)	17 (45.94%)		
Meal per day				
1-3 times	15(60%)	21(56.75%)		
4-6 times	7 (28%)	10(27.02%)	9.32	.15
7-9 times	3(12%)	6 (16.21%)		
Birth order				
First born	8 (32%)	13 (35.13%)		
Middle born	8 (32%)	8 (21.62%)	2.32	.15
Last born	9 (36%)	16 (43.24%)		
Body mass index				
Under weight	5 (20%)	25 (67.56%)		
Normal	10 (40%)	8 (21.62%)	2.72	.03
Over weight	5 (20%)	4 (10.81%)		

Table 10 shows chi square analysis of differences between androgyny and undifferentiated groups on demographic profile. As table indicates, gender shows significant differences on androgyny and undifferentiated groups i.e. girls show more androgynous gender role and boys show more undifferentiated gender roles. Age on the other hand also shows significant differences on androgyny and undifferentiated groups i.e. mid-adolescents show more androgyny and late- adolescents show more undifferentiated gender role. Education also shows significant differences on androgyny and undifferentiated groups i.e. intermediates show more undifferentiated gender role and graduates show more androgynous gender role. On the contrary, variables like type of institution, family system, meal per day and birth order; do not show any significant differences on gender roles. Body mass index shows significant differences on androgyny and undifferentiated groups i.e. individuals with normal weight show more androgynous gender role and individuals with underweight show more undifferentiated gender roles show more androgynous gender role and boys show more undifferentiated gender roles.

Group differences between number of meal per day on bulimia, drive for thinness and body dissatisfaction.

Group differences between three groups of number of meal per day was computed by anova. Theses group differences are cater on the basis of scores obtained on bulimia, drive for thinness and body dissatisfaction. The reults reveals the following:

Table 11

*Group differences between Number of Meal Per Day on Bulimia, Drive for Thinness and Body Dissatisfaction***.**

Variables	1-3 times Group 1 (n = 230)		4-6 times Group 2 (n =97)		7-9 times Group 3 (n = 13)		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*
Bulimia	3.10	2.72	4.25	3.65	5.97	2.22	25.1
Drive for Thinness	2.45	1.45	3.57	3.46	5.91	3.47	14.1
Body Dissatisfaction	5.32	1.98	7.54	4.32	12.32	2.85	17.7
EDI-3	10.61	5.22	15.92	9.92	20.45	7.05	29.1

Table 11 shows nonsignificant difference on the measures of bulimia, drive for thinness and body dissatisfaction and EDI-3. The results are non significant in showing group differences among amount of meal per day.

Table 12

Difference between Body Mass Inbex on Bulima, Drive for Thinness and Body Dissatisfaction (N=340).

Variables	Underweight Group 1 (n = 130)		Normal weight Group 2 (n =180)		Overweight Group 3 (n = 30)		F	i> j	*MD* D = i-j	95% CI	
	M	*SD*	*M*	*SD*	*M*	*SD*				LL	UL
Bulimia	2.50	1.72	5.15	3.65	5.97	7.22	25.11***	3>2	-2.65*	-3.64	-1.65
								3>1	3.46*	-2.44	-1.80
Drive for Thinness	3.45	2.75	5.57	3.46	5.91	5.47	14.17***	2>3	-2.11*	-3.07	-1.15
								2>1	.65*	-.90	2.22
Body Dissatisfaction	14.32	2.58	16.54	4.32	17.32	3.85	17.77***	3>2	-2.21*	-3.22	-1.21
								3>1	-3.00*	-2.42	.856
EDI-3	19.11	5.15	23.13	4.22	25.22	8.81	48.81***	3>2	2.19**	1.16	6.33
								2>1			

Note: M=mean, SD = standard deviation, MD= mean difference, LL= lower limit, UL= upper limit.

*p > .05. **p > .00. ***p > .000.

Table 12 shows significant difference on the measures of bulimia, drive for thinness and body dissatisfaction (p<.01). as table indicates that group 3 (*M*=5.97) scored high as compared to group 2 (*M*=5.15). Group 3 is also scoring high as compared to group 1 (*M*=2.5). on the construct of drive for thinness, grouop 2 (*M*=5.57)scored high as compared to group 1 and 3 (*M*=3.45. *M*=4.91) respectively. On the measure of body dissatisfaction group 3 (*M*=17.32) scored higher as compared to group 1 and group 2 (*M*=14.32, *M*=16.54) respectively. The results are verifying the hypothesis that overweight individuals are higher on bulimia, drive for thinness and body dissatisfaction.

Hierarchical Multiple Reggression Analysis of Masculinity and Femininity in Predicting Bulimia, Drive for thinness and Body dissatisfaction.

Hierarchical multiple regression analysis was used to predict a variable from one or more independent variables (Lopez et al., 2013). Hierarchical multiple regression adds terms to the regression model in stages. At each stage, an additional term or terms are added to model and change in R^2 is calculated. It is a stepwise method in which dummy coding is used to code the variables in 0, 1 or ELSE. Any additional variable requires recoding into different variables and at each step constant vavie is calculated and after all steps, R^2 is calculated.

Table 13

Hierarchical Multiple Regression analysis of Masculinity and Femininity in Predicting Bulimia, Drive for Thinness and Body Dissatisfaction (N=340).

Predictors	Bulimia		DFT		BD	
	ΔR^2	β	ΔR^2	B	ΔR^2	β
Step 1						
Constant		1.28**		1.19**		1.80*
Masculinity	.19	.44***	.05	.30***	.14	.41***
Step 2						
Constant		2.02**		1.49**		2.93*
Femininity	.04	.40***	.14	.38***	.02	.39***
Step 3						
Constant		1.94**		3.36**		2.01**
Age	.03	.148***	.02	.28**	.22	.31**

Continued…

Predictors		Bulimia		Drive for thinnesss		Body dissatisfaction
	ΔR^2	B	ΔR^2	β	ΔR^2	β
Step 4						
Constant		3.10**		2.39**		
Gender	.02	.35***	.11	.13*	.06	.32***
Step 5						
Constant		2.48**		3.09*		1.46**
BMI	.14	.18***	.08	.11**	.03	.33***
Step 6						
Constant		2.59**		2.66**		3.01**
Meal per day	.01	.15**	.01	.22**	.18	.31**
Total R^2	.27***		.31***		.23***	

Note: ΔR^2 = R Square Change, β = Standardized Beta. DFT = Drive for Thinness, BD = Body Dissatisfaction., BMI= Body mass index.

Table 13 shows hierarchical multiple regression analysis of predicting variables i.e., masculinity and femininity along with different demographics like age, gender, education, body mass index, birth order and meal per day in predicting bulimia, drive for thinness and body dissatisfaction, it is a step wise method in which the step 1 on the basis of theoretical evidences femininity was added and in the step 2 masculinity was included, and then demographic variables are added step wise in the analysis. After the step wise regression analysis the results indicates that for bulimia, masculinity is the first and significant positive predictor (p = .000) with β= .445 that shows that masculinity as a gender role predicts bulimia significantly and positively i.e., high on masculinity show high on bulimia. Results also indicates that femininity is the second most and significant positive predictor of bulimia, (p = .000) with β= .405 that shows that femininity as a gender role predicts bulimia significantly and positively i.e., high on femininity show high on bulimia. On the other hand in demographics variable, gender is the strong predictor of bulimia (p = .000) with β= .355 that shows that gender positively and significantly predicts bulimia.

Table also shows that for drive for thinness, femininity is the first most and significant positive predictor (p = .000) with β= .38 that shows that femininity as a gender role predicts drive for thinness significantly and positively i.e., high on femininity show high on drive for thinness. Results also indicates that masculinity is the second most and significant positive predictor of drive for thinness, (p = .000) with β= .30 that shows that masculinity as a gender role predicts bulimia significantly and positively i.e., high on masculinity show high on drive for thinness. On the other

hand in demographics variable, age is the strong predictor of drive for thinness (p = .000) with β= .28 that shows that age positively and significantly predicts drive for thinness.

Table also shows that for body dissatisfaction, masculinity is the first most and significant positive predictor (p = .000) with β= .41 that shows that masculinity as a gender role predicts body dissatisfaction significantly and positively i.e., high on masculinity show high on body dissatisfaction. Results also indicates that femininity is the second most and significant positive predictor of body dissatisfaction, (p = .000) with β= .39 that shows that femininity as a gender role predicts body dissatisfaction significantly and positively i.e., high on femininity show high on body dissatisfaction. On the other hand in demographics variable, BMI is the strong predictor of body dissatisfaction (p = .000) with β= .33 that shows that BMI positively and significantly predicts body dissatisfaction.

Moderation Effect of Gender

Analysis was performed in order to explore the impact of gender as a moderator. The moderation revealed that the impact of a third variable on the relationship between independent and dependent variables at different levels of the moderator. Moderation effect of gender has been viewed on gender roles (i.e., masculinity, femininity, androgyny and undifferentiated) in relation with disordered eating behaviors (i.e., bulimia, drive for thinness and body dissatisfaction). Tables and mod-graphs represented the various features of moderation.

Moderating impact of Gender between gender role and disordered eating behaviors. Independent sample t-test has signified significant (p < .001) gender differences on gender roles grouping especially. Enormous amount of literature has identified the influential role of gender on gender role and disordered eating behavior (Lopez et al., 2013; presnell et al., 2009; Stice et al., 2009; Warren et al., 2010; Witt, 2008;). Therefore in present study with indigenous perspective, impact of gender as a moderator has been identified in the relationship between gender roles and disordered eating behavior among Pakistani adolescents using the regression analysis. The results revealed are as following.

Table 14

Moderation Impact of the Gender between Masculinity with Drive for Thinness, Bulimia and Body Dissatisfaction among Adolescents (N = 340)

	Drive for Thinness		Bulimia		Body dissatisfaction	
	β	*SE*	B	*SE*	β	*SE*
Constant		.39		.03		.22
Masculinity	.09	.80	.21**	.17	5.99***	.45
Gender	4.1	.02	6.6***	.73	2.16**	1.12
Masculinity * Gender	.09	.05	.15**	.04	3.33***	.03
R^2	.29***		.31***		.21***	
F	21.10***		23.03***		13.80***	
R^2 Change	.01		.03**		.02*	
Slope (*t*-value)	1.01		2.10*		4.00***	

Note: ***p <.001, **p < .01, *p < .05

Table 14 indicates that gender is not predicting the relationship between masculinity and drive for thinness (p = .0727) showing no interaction between masculinity and drive for thinness. Masculinity do predicts bulimia explaining the variance of 2%, (F = 4.44*, df = 3, 116) and (p = .02), so there is positively significant prediction of masculinity and bulimia. On the other hand masculinity also predicts body dissatisfaction explaining variance of 5% (p = .000)

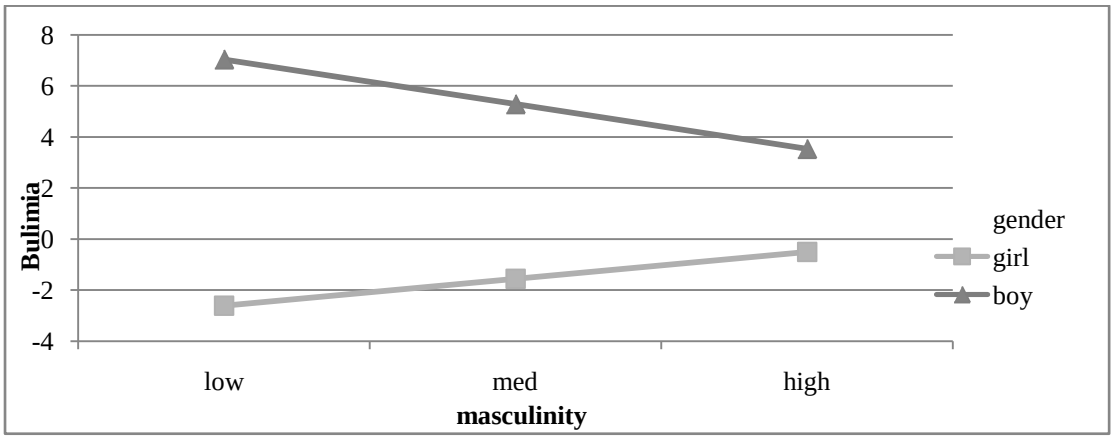

Figure 1. Mod- graph showing moderation of gender in relation to bulimia and masculinity

Figure 1 shows the moderation of gender between the relationship of masculinity and bulimia. It indicates the significant differences of boys and girls in

predicting bulimia. Figure indicates that girls who are higher on masculinity are also higher in bulimia as compared to boys who are higher on masculinity is lower on bulimia.

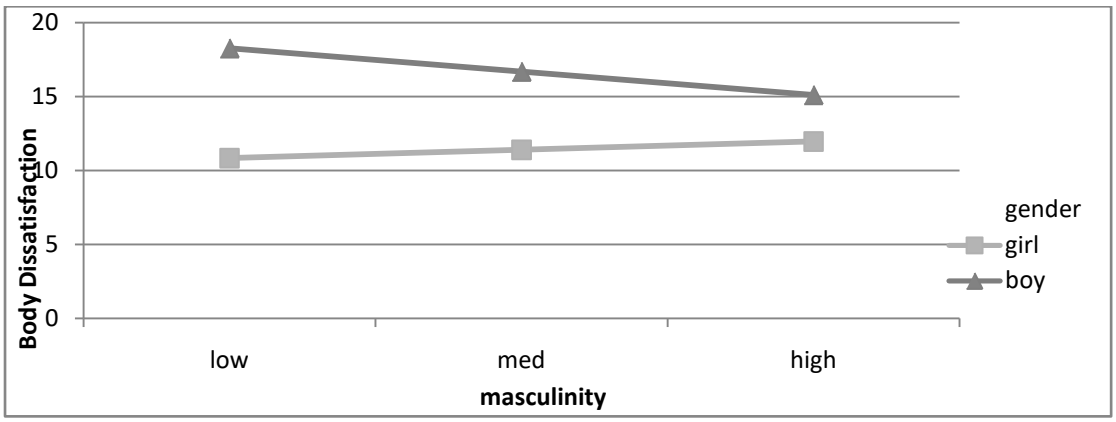

Figure 2. Mod-graph showing moderation of gender in relation to body dissatisfaction and masculinity.

Figure 2 shows the moderation of gender between the relationship of masculinity and body dissatisfaction. It indicates the significant differences of boys and girls in predicting body dissatisfaction. Figure indicates that girls who are higher on masculinity are also shows higher boy dissatisfaction as compared to boys who are higher on masculinity shows lower level of body dissatisfaction.

Table 15

Moderation impact of the Gender between femininity with Drive for Thinness, Bulimia and Body Dissatisfaction among Adolescents (N = 340)

	Drive for Thinness		Bulimia		Body dissatisfaction	
	β	*SE*	β	*SE*	β	*SE*
Constant						
Femininity	2.28***	.28	.70***	.01	3.3***	.77
Gender	5.23***	.57	4.92***	.57	1.13***	.03
Femininity * Gender	.33***	.01	.25***	.03	.24***	.03
R^2	.42***		.35***		.23***	
F	28.28***		21.36***		12.51***	
R^2 Change	.02*		.09**		.17***	
Slope (*t*-value	2.20**		1.18**		1.45***	

Note: ***p <.001, **p < .01, *p < .05

Table 15 indicates that gender predicts the relationship between femininity and body drive for thinness, explaining 2% variance in drive for thinness (F = 5.22*, df = 3, 154) and interaction is positive and significant (p = .01). On the other hand gender also predicts the relationship between femininity and bulimia explaining the variance of 7% and (F = 19.76***, df = 3, 335) and p = .000. femininity has positive and significant relation with body dissatisfaction with the moderating role of gender, explaining variance of 3% (F = 33.21***, df = 3, 39) and p = .000. this shows that gender moderates the relationship of gender roles and disordered eating behavior as femininity has significant interaction with drive for thinness, bulimia and body dissatisfaction with moderating role of gender between them.

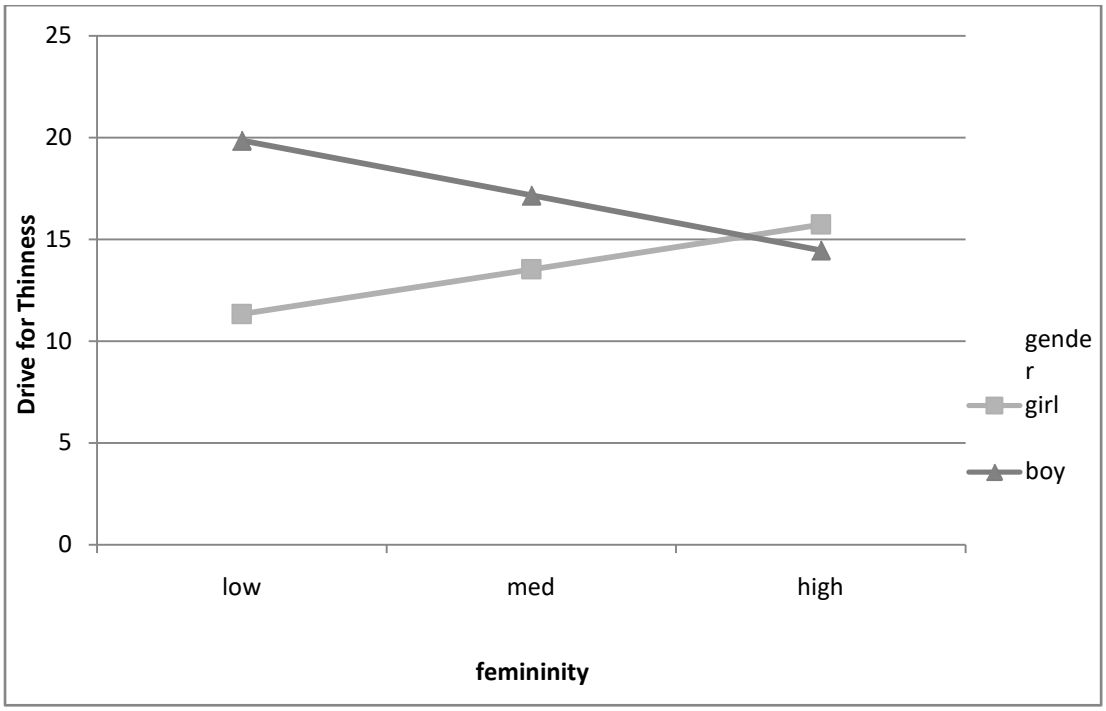

Figure 3. Mod-graph showing moderation of gender in relation to drive for thinness and femininity.

Figure 3 shows the moderation of gender between the relationship of femininity and drive for thinness. It indicates the significant differences of boys and girls in predicting drive for thinness. Figure indicates that girls who are higher on femininity are also higher on drive for thinness as compared to boys who are higher on femininity shows low level of drive for thinness.

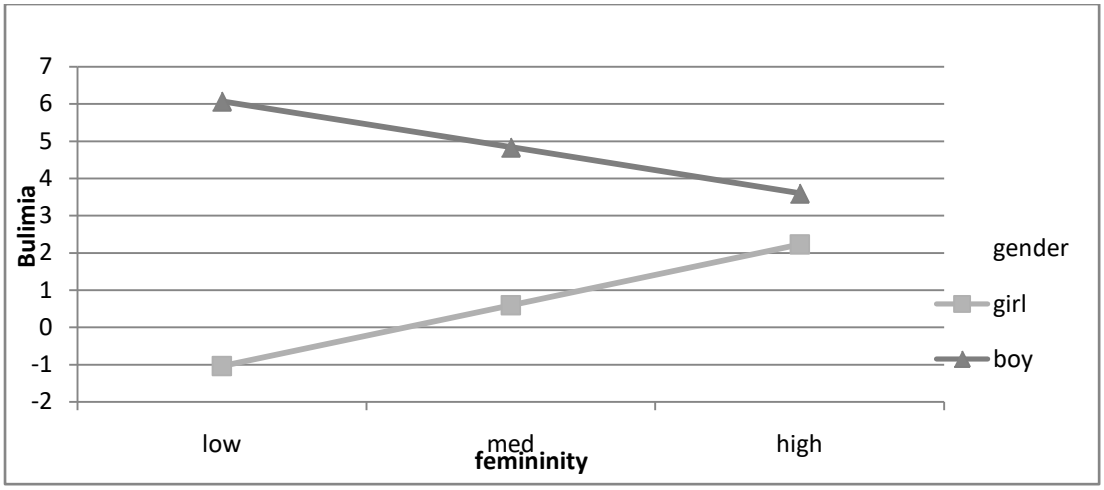

Figure 4. Mod-graph showing moderation of gender in relation to bulimia and femininity.

Figure 4 shows the moderation of gender between the relationship of femininity and bulimia, figure indicates that girls with higher level of femininity as their gender role are also higher in developing bulimia as a disordered eating behavior, as compared to boys who are higher in femininity as their gender role are lower in developing bulimia.

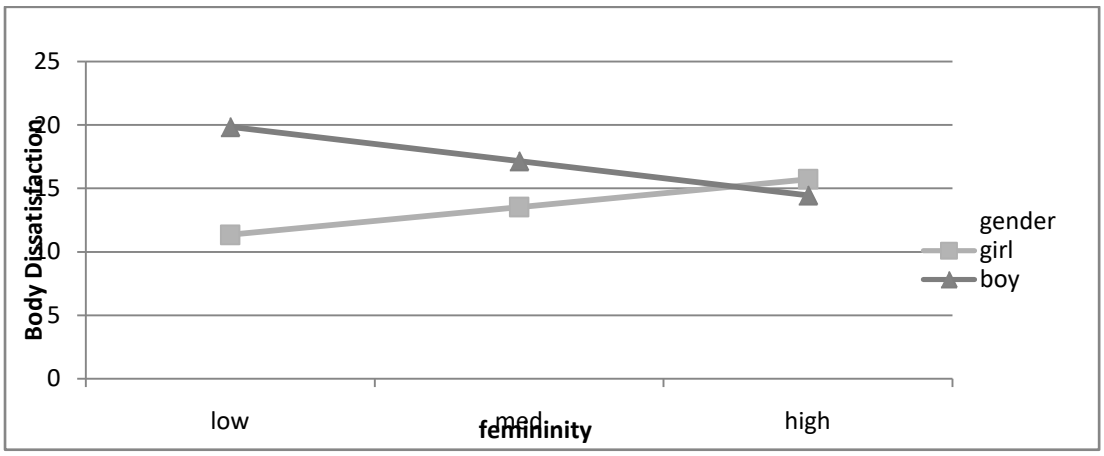

Figure 5. Mod-graph showing moderation of gender in relation to body dissatisfaction and femininity.

Figure 5 shows the moderation of gender between the relationship of femininity and body dissatisfaction. It indicates the significant differences of boys and girls in predicting body dissatisfaction. Figure indicates that girls who are higher on femininity are also higher in body dissatisfaction as compared to boys who are higher on femininity shows lower body dissatisfaction.

Table 16

Moderation impact of the Gender between undifferentiated with Drive for Thinness, Bulimia and Body Dissatisfaction among Adolescents (N = 340)

	Drive for Thinness		Bulimia		Body dissatisfaction	
	β	*SE*	β	*SE*	β	*SE*
Constant						
undifferentiated	1.62***	.94	2.94**	1.10	5.46***	.57
Gender	.36***	.02	.70***	.03	.14***	1.19
undifferentiated * Gender	.28	.05	.19**	.06	.40**	.03
R^2	.32**		.32**		.48**	
F	6.12***		6.22***		12.01***	
R^2 Change	.15**		.01**		.44***	
Slope (*t*-value)	1.19		2.02**		2.10***	

Note: ***p <.001, **p < .01, *p < .05

Table 16 indicates that gender do not predicts the relationship between undifferentiated and drive for thinness as the interaction is not significant (p = .23). On the other hand gender positively predicts the relationship between undifferentiated and bulimia explaining the variance of 3% and (F = 19.76***, df = 3, 335) and p = .01. Undifferentiated has positive and significant relation with body dissatisfaction with the moderating role of gender, explaining variance of 6% (F = 33.21***, df = 3, 39) and p = .000.

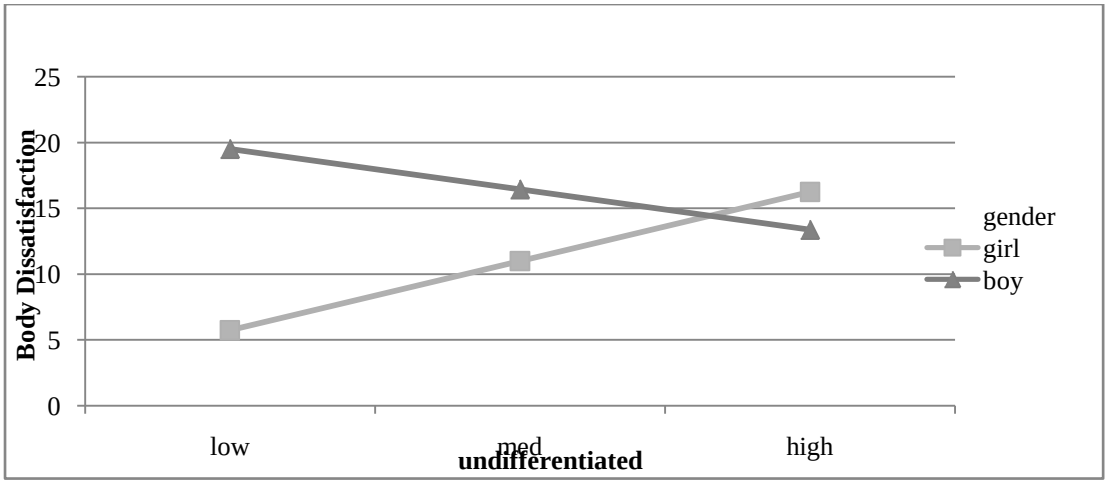

Figure 6. Mod-graph showing moderation of gender in relation to body dissatisfaction and undifferentiated.

Figure 6 shows the moderation of gender between the relationship of undifferentiated and body dissatisfaction. It indicates the significant differences of boys and girls in predicting body dissatisfaction. Figure indicates that girls who are higher on undifferentiated gender role are also higher body dissatisfaction as compared to boys who are higher on undifferentiated as their gender role shows lower body dissatisfaction.

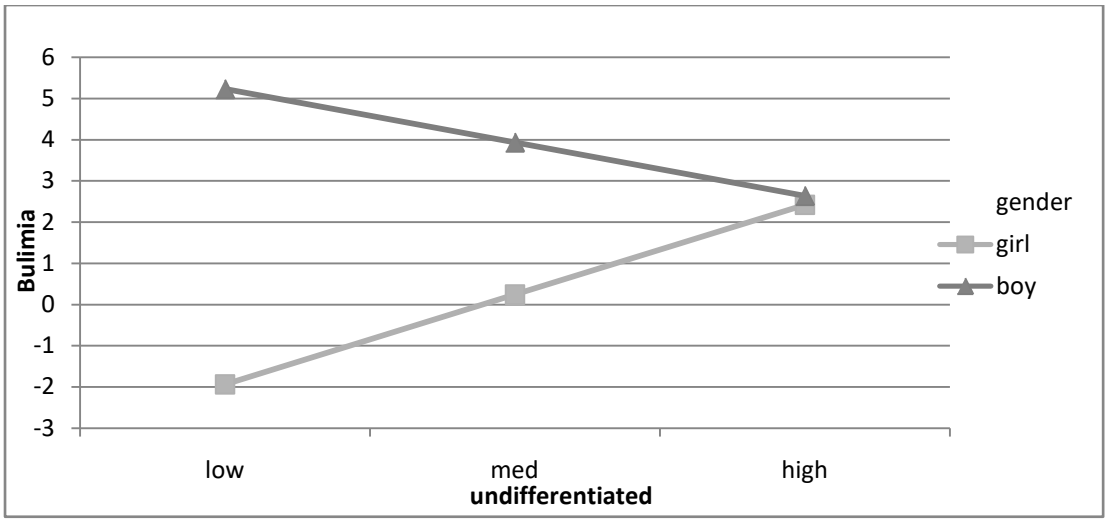

Figure 7. Mod-graph showing moderation of gender in relation to bulimia and undifferentiated.

Figure 7 shows the moderation of gender between the relationship of undifferentiated and bulimia. It indicates the significant differences of boys and girls in predicting bulimia. Figure indicates that girls who are higher on undifferentiated gender

role are also higher in bulimia as compared to boys who are higher on undifferentiated gender role are lower on bulimia.

Chapter IV

DISCUSSION

Age of adolescence is a noteworthy developmental age concerning identity development, social, sexual growth, physical, cognitive and enlarged self-awareness. Even though the adolescents in majority make this changeover without considerable difficulties, a number of adolescents come across psychological and behavioral problems with additional long-lasting possessions (Bongers, Koot, van der Ende, Verhulst, 2003 & Ybrandt, 2007). Among them disordered eating behaviors are one such problem area, mainly found in females, appearing frequently in adolescence and repeatedly with a persistent course (Reijonen, Pratt, Patel, & Greydanus, 2003; Striegel-Moore & Bulik, 2007. The present research aimed to assess moderation effect of gender on relationship between gender roles and disordered eating behaviors. Along with this the differences for the demographic variables such as age, gender, education, form of institution, birth order and family system and amount of having meal per day was also the intention. In order to fulfill the requirements data was collected from the schools and colleges of Islamabad. The age range for the adolescent sample was 16 to 20 years and after data collection hybrid method of scoring gender roles was used by computing standard score difference and *t*-scores.

Correlation between Gender Roles and Disordered Eating Behaviors

Results shows significant positive correlation between gender roles and disordered eating behaviors. Table also shows significant positive correlation between all the subscales of gender roles and disordered eating behavior. Masculinity and femininity subscale revealed significant positive correlation with bulimia, drive for thinness and body dissatisfaction and EDI-3 total score that shows that there was a positive and significant relationship present between gender roles and disordered eating behaviors **(**See Table 4). The first hypothesis stated that there was a positive relationship of gender roles (masculinity, femininity) and disordered eating behaviors (bulimia, drive for thinness and body dissatisfaction) present. Results are in accordance with the literature (Smolak & Ninder, 2004; Liben & Bigler, 2004)

Mean group differences were assessed on gender roles (masculinity, femininity, and undifferentiated) and disordered eating behaviors (bulimia, drive for thinness, body dissatisfaction). Initially gender roles divided individuals in four groups i.e., masculinity group, femininity group, androgyny group and undifferentiated group. Then mean differences, standard deviations and t- values were computed across gender to test the hypothesis. The second hypothesis stated that feminine girls score higher on bulimia, drive for thinness and body dissatisfaction as compared to feminine boys. Mean differences revealed that in femininity group, the mean value of girls was higher on bulimia, drive for thinness and body dissatisfaction as compared to boys. Significant mean differences between boys and girls on bulimia drive for thinness and body dissatisfaction revealed that the results were in the direction of the hypothesis. The result implies that adolescent girls within the higher level of femininity in them were revealed a greater tendency towards bulimia, drive for thinness and body dissatisfaction as compared to boys. The results are in accordance with the literature (Mernen & Smolak, 1997; Blashill, 2011; Spindler & Milos, 2005).

The results of third hypothesis revealed that masculine girls score higher on bulimia, drive for thinness and body dissatisfaction as compared to masculine boys and the scores of t-analysis revealed that masculine girls do score higher on bulimia, drive for thinness and body dissatisfaction as compared to masculine boys. It might because of the growing literature that supports this fact that girls who carry more masculine traits shows more differences in eating patterns as for a girl it is not normative to have masculine traits as compared to boys (Bantley, 2014) due to societal impacts and reinforcement by media images in developing those traits found that media exposure predicted gender role endorsement (as assessed by participants' endorsement of stereotypes of male and female social roles), which in turn, was related to ideal-body type stereotype internalization (as assessed by participants endorsement of the thin ideal-body type. These exposures to girls make them more inclined towards the thin-ideal body type (feminine). This result is in accordance with literature (Mallick, Ray & Mukhopadhyay, 2014).

The results of forth hypothesis explains that undifferentiated girls score higher on bulimia, drive for thinness and body dissatisfaction as compared to undifferentiated boys. The results accepts this hypothesis as the mean scores of girls are higher on bulimia, drive for thinness and body dissatisfaction. These results are

supported by the literature (Cheng, 2014; Smolak, 2005). The results of fifth hypothesis explains that girls score higher on bulimia, body dissatisfaction and drive for thinness as compared to boys, the results revealed the same finding as we can see that girls are higher on bulimia and drive for thinness but body dissatisfaction is more common in boys. So the third hypothesis is partially accepted. This result is in accordance with literature (Mernen & Smolak, 1997; Gropper et al., 2014; Rieter, 2007). Results of many studies indicates the high prevalence of body dissatisfaction among boys, this is due to the growing fact that boys are more dissatisfied with their body by comparing theirs with others, those who exercise daily and maintain their body shape are more satisfied. This result is in accordence with the literature (Lopez, Corona, & Halfond, 2013).

The results of hypothesis explains that overweight individuals have more scores on bulimia, drive for thinness and body dissatisfaction. Body mass index is very influential in developing disordered eating behaviors (Romero, 2008). Due to educational awareness and role of social media, health consciousness increased in public circles which have certain specific precautionary effects such as body dissatisfaction and bulimia. In accordance with the hypothesis, middle adolescence scores more on bulimia, dry for thinness and body dissatisfaction as compared to late adolescence. Scores of mean differences shows that middle adolescence scores more on bulimia, dry for thinness and body dissatisfaction. The results are verifying the hypothesis. The factor for that might be their growing maturity level which is obviously higher than the lower aged group.

Disordered Eating and Gender Role Groups

Results shows chi square analysis of differences between androgyny and undifferentiated gender roles groups on demographic profile. As table 10 indicates, gender shows significant differences on androgyny and undifferentiated groups i.e. girls show more androgynous gender role and boys show more undifferentiated gender roles. Age on the other hand also shows significant differences on androgyny and undifferentiated groups i.e. mid-adolescents show more androgyny and late-adolescents show more undifferentiated gender role. Education also shows significant differences on androgyny and undifferentiated groups i.e. intermediates show more undifferentiated gender role and graduates show more androgynous gender role. On

the contrary, variables like type of institution, family system, meal per day and birth order; do not show any significant differences on gender roles. Body mass index shows significant differences on androgyny and undifferentiated groups i.e. individuals with normal weight show more androgynous gender role and individuals with underweight show more undifferentiated gender roles show more androgynous gender role and boys show more undifferentiated gender roles. The results are in accordance with the existing literature (knauss et al., 2007; Ebert & Dolan, 2000; Muhlheim, 2012).

Body Mass Index and Disordered Eating Behaviors

Results shows significant difference on the measures of bulimia, drive for thinness and body dissatisfaction. As table indicates that overweight individuals scored higher on bulimia, drive for thinness and body dissatisfaction as compared to normal weight individuals. Over weight individuals also scored higher on bulimia drive for thinness and body dissatisfaction as compared to group normal weight individuals. The results are verifying the hypothesis that overweight individuals are higher on bulimia, drive for thinness and body dissatisfaction. Results are also in accordance with the existing literature (Lopez et al., 2013).

Regression Effect of Gender Role and Demographic Variables on Disordered Eating Behaviors

Hierarchical multiple regression analysis was used to predict a variable from one or more independent variables (Lopez et al., 2013). (See Table 13) that shows hierarchical multiple regression analysis of predicting variables i.e., masculinity and femininity along with different demographics like age, gender, education, body mass index, birth order and meal per day in predicting bulimia, drive for thinness and body dissatisfaction. The results indicated that for bulimia, masculinity is the first and significant positive predictor that shows that masculinity as a gender role predicts bulimia significantly and positively i.e., high on masculinity show high on bulimia. Results also indicates that femininity is the second most and significant positive predictor of bulimia, that showed that femininity as a gender role predicts bulimia significantly and positively i.e., high on femininity show high on bulimia. On the other hand in demographics variable, gender was the strong predictor of bulimia that shows that gender positively and significantly predicts bulimia.

For drive for thinness, femininity is the first most and significant positive predictor that shows that femininity as a gender role predicts drive for thinness significantly and positively i.e., high on femininity show high on drive for thinness. Results also indicates that masculinity is the second most and significant positive predictor of drive for thinness that shows that masculinity as a gender role predicts bulimia significantly and positively i.e., high on masculinity show high on drive for thinness. On the other hand in demographics variable, age is the strong predictor of drive for thinness that shows that age positively and significantly predicts drive for thinness.

Table also shows that for body dissatisfaction, masculinity is the first most and significant positive predictor that shows that masculinity as a gender role predicts body dissatisfaction significantly and positively i.e., high on masculinity show high on body dissatisfaction. Results also indicates that femininity is the second most and significant positive predictor of body dissatisfaction that shows that femininity as a gender role predicts body dissatisfaction significantly and positively i.e., high on femininity show high on body dissatisfaction. On the other hand in demographics variable, BMI is the strong predictor of body dissatisfaction that shows that BMI positively and significantly predicts body dissatisfaction.

Moderation Effect of Gender between Gender Roles and Disordered Eating

The results revealed that gender do have moderating role between gender roles and disordered eating. For masculinity and bulimia, results revealed that girls with higher level of masculinity will also have higher level of bulimia ($b = .1618$, $p < .05$), as compared to boys who have higher masculinity are low bulimia. For femininity, results revealed that girls who were higher on femininity as their gender role also shows high level of bulimia, on the other hand boys with higher femininity as their gender role had low intensity of bulimia ($b = .0619$, $p = .001$).

Androgyny on the other hand as a gender role goes to safe side with no significant gender moderation between gender role and disordered eating. A possible explanation for the finding that androgyny was associated with lower levels of disordered eating might be that individuals who integrate masculinity and femininity have a broader range of behavioral options, whereas strongly gender-typed individuals are limited in their responses, because they suppress any behavior that

might be undesirable or inconsistent with an internalized gender role standard (Bem, 1977).

Conversely, undifferentiated individuals, lacking clear gender role identification, appear most at risk of disordered eating related psychopathological symptoms, possibly due to a narrow range of coping strategies. Results findings revealed that girls higher on undifferentiated as their gender roles were also higher in bulimia, and body dissatisfaction. On the other hand boys with higher on undifferentiated as their gender roles are at low risk of bulimia as well as body dissatisfaction. The observed patterns are consistent with findings by Behar et al. (2001) Taking into account the results both on associations between scales and on group differences between gender role categories, the study allows the following conclusions. When considered independently of each other, androgynous traits appear to have a stronger protective effect in the context of disordered eating than feminine traits, masculine and undifferentiated traits.

When both gender dimensions are considered together, the combination of higher levels of both masculinity and femininity had the strongest protective effect. A lack of gender role definition (i. e., low levels in both masculinity and femininity), conversely, appears to be associated with eating problems. The results suggest that although they are independent dimensions, investigating combinations and interplay of masculinity and femininity may yield insights that go beyond the results of examining masculinity and femininity isolated from each other. When assessing the results of the current study, one ought to take into consideration that the reported associations between gender role and disordered eating may be partly moderated by gender itself.

Gender roles and eating problems have solid socio-cultural segments. Measures of gender role are inseparably bound to social and demonstrable ideas of fitting roles and behavior for boys and girls (Bem, 1988). Dietary problems result, partially, from current societal drive for thinness that influences girls more than men to be a thin. There are various routes in which boys and girls vary in the vitality they put on appearance. Boys and girls of all ages judge ugliness more hardhearted in girls than in boys. Contrasted with boys, girls are more worried about their appearance, body dissatisfaction as well as drive for thinness and rating their physical appearance

as more critical, pondering their bodies more, and investing more time on grooming (as cited in Lancelot & Kaslow, 1994).

In addition, what is viewed as appealing for girls has changed in the course of the most recent two decades. The perfect female structure portrayed in style magazines has gotten to be continuously thinner and less curvaceous (Earn, 1980). As needs be, inclination for thin shapes and exertions to get in shape among girls have gotten to be across the board. Be that as it may, few girls can achieve the current ladylike perfect of thinness, and it is felt that such disappointment to match the perfect has prompted the expand in negative emotions at the body and great weight reduction measures as well as disordered eating (Rodin et al., 1988).

Current findings indicate that girls with higher masculinity, femininity and undifferentiated gender roles are more inclined to bulimia, drive for thinness and body dissatisfaction. Research studies also proposed that girls are more prone to create disordered eating than boys, and female gender orientation is by and large considered an imperative danger element for eating issue. (as cited in Spindler & Milos, 2005). A study lead by Reiter in 2009 and their discovering recommends that women were more probable than men to report larger amounts of body dissatisfaction, higher drives for thinness, and more noteworthy inconsistencies in the middle of real and craved weights. An alternate study recommends that young boys reported altogether lower drive for thinness and social physique anxiety, and higher drive for bulkiness and self-esteem toward oneself contrasted with young girls (Brunet et al., 2010), this finding supports the current study that shows that boys are lower on drive for thinness as compared to girls.

A study lead by Reiter in 2009 and their findings recommends that women were more probable than men to report larger amounts of body dissatisfaction, higher drives for thinness, and more noteworthy inconsistencies in the middle of real and craved weights, yet this relationship was not found for the dependent variable for bulimic mentality/practices. Literature recommends that there is an experimental proof of a positive association in the middle of femininity and eating issues, and the negative relationship in the middle of masculinity and eating issues. eating disorders give off an impression of being disorder of femininity; masculinity appears to be a defensive element, autonomously by the natural gender (Cella et al., 2013). An alternate study recommends that young boys reported altogether lower drive for

thinnness and social physique anxiety, and higher drive for bulkiness and self-esteem toward oneself contrasted with young girls (Brunet et al., 2010). A study led by Johnson et al., (2004), their discoveries propose that girls exhibited essentially more elevated amounts of drive for thinness than boys separately. Additionally, girls exhibited fundamentally larger amounts of body dissatisfaction than boys individually.

An alternate study directed by Ferreiro et al., 2014 on teenagers and their discoveries recommend that disordered eating expanded straightly for young girls but diminished directly for young boys. Their intervention dissects demonstrate that sexual orientation was a critical indicator of body dissatisfaction. Particularly, the negative appraisal demonstrates that body dissatisfaction was higher in young girls than in young boys and body dissatisfaction was fundamentally and decidedly connected with the young girls. yet was not a noteworthy indicator of disordered eating in young men. A study led by Romero in 2008, on females, and results showed that femininity anticipated bulimia indications, and body disappointment, $p < .001$. Results likewise showed that female sex part push anticipated bulimia side effects, and body disappointment.

A study lead by Forbes et al., in 2001, found that girls named feminine-typed or undifferentiated were more disappointed with their bodies than were girls delegated masculine typed. Comparative results were found for males. Both studies likewise found that girls, paying little respect to gender sort, had thin standards and incredibly overestimated male inclination for thin female bodies (Forbes, 2001). An alternate study directed by Smolak & Mernen in 2008 demonstrates that females having female sexual orientation part was identified with Drive for Thinness. These finding supports the results on current literature.

Conclusion

The research assessed the relationship of gender role and disordered eating behaviors among adolescents and also assessed the moderating impact of gender on the relationship between gender roles and disordered eating among adolescents. This research reveals that masculinity, femininity and undifferentiated gender roles can lead to disordered eating behaviors among adolescents. Both the gender roles and disordered eating behaviors were found to be positively related to each except the

androgyny gender role negatively related to disordered eating behavior. The gender differences revealed that boys have high femininity and low masculinity, and girls revealed more masculinity and low femininity. Furthermore, demographic variables such as age group, level of education, family system, type of institution, has been explored on study variables and results revealed that of middle age adolescents group reported high bulimia, drive for thinness and body dissatisfaction as compared to late adolescents. Body mass index was catered and results revealed that bulimia, drive for thinness and body dissatisfaction was more prevalent in overweight individuals. Individuals with joint family system show more bulimia and body dissatisfaction. Individuals of private institutions shows more bulimia and body dissatisfaction. Group differences on categorical gender roles (androgyny and undifferentiated) was investigated and results revealed that gender, age, education and body mass index shows significant differences between androgyny and undifferentiated gender roles. Moderation is significant within gender for the effect of gender role on disordered eating behaviour. The moderation of effect of gender roles and disordered eating behaviours was revealed to be significant within the total adolescents.

Implications

The relationship between gender roles and disordered eating behaviour is positive within the local context, implies that the proposed model based on literature (Achenbach, 1991; Archer, 2006; Hane et al., 2008; Hersen & Gross, 2008; Janson & Mathiesen, 2008; Ollendick et al., 2008) holds valid for the local population as well. The gender role of the adolescent appears to have a strong influence on the psychological health and eating preferences of adolescents and thus it is important to understand that one's own gender is of immense significance for the healthy and problem free development of an adolescent as is shown by moderation effects.

The research also compared the groups of sex typed and cross sex typed (i. e., masculine, feminine, androgynous, undifferentiated adolescents revealing differences in the groups. The repercussion can be of extreme nature as is observed in case of girls who have a higher tendency to develop disordered eating behaviors (Forney & Ward, 2013). The management is to be learned that involve the grooming

of the parents and establishing a ground level of understanding among them on how there are genetic differences between individuals and the significance of environment that can lead to disordered eating behaviors (Hepp, 2005). It is very important to understand how there might be different developmental needs in case of both males and females and how those needs are to be fulfilled. This can lead to greater degree of fulfillment and nourishment at the psychological level. These gender differences imply how further research is needed in order to understand not only the underlying mechanisms involved in the generation of such differences but also the implications that can arise due to these dissimilarities.

There is a need to promote awareness among health professionals and general population about serious health consequences of disordered eating behaviors in Asian cultures. So the present research will help the health professionals to screen the individuals having disordered eating behaviors , that can led to prolong and full blown eating disorders, present research will help out the professionals to cater this fact and make them aware to develop an intervention programs for the adolescents

Limitations

There are limitations of the research, especially due to shortage of time and limitation of resources. The sample was adequate in number as 340 adolescents were participants but data was collected on convenience basis. Limited number of schools agreed to allow participation of their students in the research and thus large amount of data was generated from few specific regions. Data generated from only one private sector institution does not correctly represent the private colleges. The students asked questions again and again during the data collection. The data was collected from the adolescents of Islamabad and Rawalpindi between age range 16 to 20 and just as reliability is a measure for a particular sample and testing conditions the results of this research cannot be generalized to other samples and conditions. Furthermore, there is a need to establish indigenous scale of gender roles and disordered eating behaviors for the better and genuine results.

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Appendix A

Informed Consent

This questionnaire is part of M.sc research being carried out to fulfill the degree requirement in National Institute of Psychology, Quaid-i-Azam University, Islamabad. This research is being conducted in order to find the relationship between gender roles and risk of disordered eating among adolescents. For this purpose, two questionnaire are being used which you are required to fill out as honestly as you can. There is no right or wrong answers. Please take care that no question is left unmarked.

Rest assured that all the information provided by you will be kept in strictest confidentiality and will be used for research purpose only. Your contribution to this research is highly appreciated.

Thank you.

I hereby agree to take part in this research.

_____

Signature of respondent

Appendix B

Demographic sheet

Age _____

Gender _____

Education _____

Type of institution (Government or Private) _____

Family system (Nuclear or joint) _____

Birth order _____

How many times you take full meal a day

1-3 times

4-6 times

7-9 times

Weight in (kg) _____

Height in (foot & inches) _____

Appendix C

Instructions:

Read each statement carefully and then answer the best answer.

1	**Never or almost never true**
2	**Usually not true**
3	**Sometimes but infrequently true**
4	**Occasionally true**
5	**Often true**
6	**Usually true**
7	**Always or almost always true**

S. #.	Items	1	2	3	4	5	6	7
1	Self reliant							
2	Yielding							
3	Helpful							
4	Defends own beliefs							
5	Cheerful							
6	Moody							
7	Independent							
8	Shy							
9	Careful							
10	Athletic							
11	Affectionate							
12	Artificial							
13	Assertive							
14	Flatter able							
15	Happy							
16	Strong personality							
17	Loyal							
18	Unpredictable							
19	Forceful							
20	Feminine							
21	Reliable							
22	Analytical							
23	Sympathetic							
24	Jealous							
25	Leadership ability							
26	Sensitive to other’s need							
27	Truthful							
28	Willing to take risk							
29	Understanding							
30	Secretive							
31	Makes decisions easily							
32	Kind							
33	Sincere							
34	Self-sufficient							
35	Eager to soothe hurt feeling							
36	Arrogant							
37	Dominant							
38	Soft spoken							

39	Likable							
40	Masculine							
41	Warm							
42	Serious							
43	Willing to take a stand							
44	Tender							
45	Friendly							
46	Aggressive							
47	Innocent							
48	Inefficient							
49	Acts as a leader							
50	Childlike							
51	Adaptable							
52	Individualistic							
53	Does not use harsh language							
54	Unsystematic							
55	Competitive							
56	Loves children							
57	Tactful							
58	Ambitious							
59	Gentle							
60	Traditional							

Appendix D

Instructions

Please circle one of the following on the line next to statement;

A if the answer is always **S** if the answer is sometimes

U if the answer is usually **R** if the answer is rarely

O if the answer is often **N** if the answer is never

1- I eat sweets and carbohydrates without feeling nervous	**A**	**U**	**O**	**S**	**R**	**N**
2- I think that my stomach is too big	**A**	**U**	**O**	**S**	**R**	**N**
3- I eat when I am upset	**A**	**U**	**O**	**S**	**R**	**N**
4- I stuff myself with food	**A**	**U**	**O**	**S**	**R**	**N**
5- I think about dieting	**A**	**U**	**O**	**S**	**R**	**N**
6- I think that my thighs are too large	**A**	**U**	**O**	**S**	**R**	**N**
7- I feel extremely guilty after overeating	**A**	**U**	**O**	**S**	**R**	**N**
8- I think that my stomach is just the right size	**A**	**U**	**O**	**S**	**R**	**N**
9- I am terrified of gaining weight	**A**	**U**	**O**	**S**	**R**	**N**
10- I feel satisfied with the shape of my body	**A**	**U**	**O**	**S**	**R**	**N**
11- I exaggerate or magnify the importance of weight	**A**	**U**	**O**	**S**	**R**	**N**
12- I have gone on eating binges where I felt that could not stop	**A**	**U**	**O**	**S**	**R**	**N**
13- I like the shape of my buttocks	**A**	**U**	**O**	**S**	**R**	**N**
14- I am preoccupied with the desire to be thinner	**A**	**U**	**O**	**S**	**R**	**N**
15- I think about bingeing	**A**	**U**	**O**	**S**	**R**	**N**
16- I think that my hips are too big	**A**	**U**	**O**	**S**	**R**	**N**
17- I feel bloated after eating a normal meal	**A**	**U**	**O**	**S**	**R**	**N**
18- I eat moderately in front of others and stuff myself when they are gone	**A**	**U**	**O**	**S**	**R**	**N**
19- If I gain a pound, I worry that I will keep gaining	**A**	**U**	**O**	**S**	**R**	**N**
20- I have the thought of trying to vomit in order to lose weight	**A**	**U**	**O**	**S**	**R**	**N**
21- I think that my thighs are just the right size	**A**	**U**	**O**	**S**	**R**	**N**
22- I think that my buttocks are too large	**A**	**U**	**O**	**S**	**R**	**N**
23- I eat or drink in secrecy	**A**	**U**	**O**	**S**	**R**	**N**
24- I think that my hips are just the right size	**A**	**U**	**O**	**S**	**R**	**N**
25- When I am upset, I worry that I will start eating.	**A**	**U**	**O**	**S**	**R**	**N**