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# Body Image, Eating Behaviors and Mental Wellbeing among University Students

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***Abstract***

*The present study aims to find the relationship among body image, eating behaviours and mental wellbeing in university students. The sample consisted of 300 university students of both genders (males= 150, females= 150) and their age ranged from 18-25 years. Participants were taken from four different public and private sector universities of Lahore, Pakistan through purposive sampling strategy. Data was collected through Body Image Scale, Eating Attitude Test-26 and Warwick-Edinburgh Mental Wellbeing Scale. The results of the study show significant negative relationship between poor body image and mental wellbeing (r= -.25, p< .01) and between unhealthy eating behaviour and mental wellbeing(r= -.20, p< .01). Female students have more unhealthy eating behaviors as compared to male students. It is also revealed that body image and eating behaviour are significant negative predictors of mental wellbeing. The results of the study suggest future implications to promote awareness related to body image, eating behaviour and mental wellbeing. The study will help campus counsellors for the early management of body image problems that can lead to poor mental wellbeing.*

***Key Words:*** *Body Image, Eating Behaviour, Mental Wellbeing, Campus Counsellors.*

## Introduction

Body image is the relationship between a person's own body and cognitive processes related to body like values, attitudes and beliefs (Cash et al., 2005). Positive body image also known as healthy body image is the concept in which a person accepts the shape and size of his/her own body in a realistic way (Reynaga-Abiko, 2011). A person who has positive body image is more likely to have healthy body, positive psychological wellbeing, healthy eating behaviour and positive thinking (Cash & Smolak, 2011). Characteristics of positive body image include appreciation of the uniqueness of one's body, change negative compliments into positive compliments in a manner to be protective about one's body, appreciating the functions and assets of body that makes individual beautiful and perfect (Nicole et al., 2010). Body dissatisfaction or negative body image linked with unhealthy mental health outcomes which include mood disorders, eating disorders, symptoms of anxiety, depression, stress, poor psychological adjustment, low self-esteem and overall mental distress (Donaghue, 2009).

Healthy eating behaviors and ensuring healthy nutrients in take is associated with improved cognitive functioning, mood and memory (Burrows et al., 2016). People with body dissatisfaction or negative body image have disturbances related to eating behaviors. Body image dissatisfaction can lead to eating disorders (Marco et al., 2013). Students with healthy dietary behaviors reported life satisfaction, happiness and higher level of mental wellbeing than students who adopt unhealthy dietary behaviors reported less life satisfaction, unhappiness and higher depressive symptoms (Pengpid et al., 2015). Abnormal eating behaviors of students cause depression (Lazarevich et al., 2013). Body dissatisfaction was highly associated with binge eating, anorexia and bulimia nervosa (Jacobi et al., 2004). Unhealthy eating behavior sometimes causes stress which can lead to gain weight, obesity, poor quality diet, increased fat intake, sugar and higher intake of energy (Andrea et al., 2015). The risk of health problems increases in young adults and adolescents due to consumption of high calories food, food with less nutrients and poor sedentary (Forshee et al., 2006). University students mostly prefer to eat fast food from cafeterias of universities and select unhealthy food items or they eat food that is not very costly which ultimately lead towards unhealthy eating behaviors (Gan et al., 2011). There is a significant relationship between environment and food consumption behavior of students. Student's eating behavior was associated with place where they live and environment where they mostly eat meals. Some students eat unhealthy food due to the environmental factors (Linda & Karen, 2017). The extreme desire of having ideal or acceptable body image may lead a person towards adverse consequences like a person may experience depression, anxiety, low self-confidence and self-esteem. This means that more a person indulge in having ideal body shape more he/she engages in dissatisfaction with body image and other mental related problems (Kamaria et al., 2018). A person with negative body image is at risk to develop depression, stress, anxiety and low self-esteem (Brytek-Matera, 2011). Dissatisfaction of body image or negative body image and disturbed eating behaviour can be influenced by intense concerns of weight and shape of body. University students who experience disturbed eating behaviors may engage in heavy exercises (Bryla, 2003). People who are dissatisfied with their body image can suffer from isolation, depression, low self-confidence weight loss obsession, negative emotions and are likely to engage in eating disturbances or having eating disorders (Alizade et al., 2016)

Mental wellbeing is based on the feelings of being good and functioning well. It also includes happiness, optimistic point of view, having good relationship with others and resiliency of a person (Chida & Steptoe, 2008). According to Campbell (1976) psychological wellbeing is related to the current state of person's life and its assessment. A person with positive mental well-being has the ability to cope with daily life problems like depression, stress, anxiety, social problems and a person with negative mental wellbeing fail to deal with crucial situations (Mahmood & Shaukat, 2014). Life satisfaction and mental wellbeing are strongly associated with each other. People who are mentally disturbed are not able to spend satisfactory lives (Guney et al., 2010). If a person has the ability to develop positive mental wellbeing capacities then he/she will be able to overcome stress and develop strengths to prevent himself/herself from physical and mental illness (Parkinson, 2006). Persons with higher satisfaction of body image also have higher mental wellbeing (Yazdani et al., 2018). People with obesity or being overweight are very likely to have psychological problems like depression, stress, anxiety, eating disorders and poor self-confidence (Richard et al., 2016).

## Objectives

- To explore the relationship among body image, eating behavior and mental wellbeing of university students
- To investigate the role of poor body image and unhealthy eating behaviors on mental wellbeing of university students

- To find out gender differences on body image, eating behaviors and mental wellbeing of university students.

## Literature Review

Body image is negatively influenced by media among university students. It was found that dissatisfaction of body image is less in male students and high in female students. Overall, significant gender differences were found in male and female students regarding concern about body image and dissatisfaction of body image (Khan et al., 2011). There is a significant effect of media on eating behaviors and self-esteem in young adults. Males and females are highly influenced by media with reference to their body image. They usually spent much time in surfing on social websites and also reported to have tendency to compare themselves with others on social media (Santarossa, 2015). Peers and parents relationship also contributes to the development of body image perception in individuals. It was also found that people who have good and satisfactory relationship with peers and parents have positive perception related to body image and people who have unsatisfactory relationship with parents and peers may engage in negative body image perception (Holsen et al., 2012). Individuals who are engaged in heavy exercises and eating disorders in order to control weight or having ideal body shape also have altered mental state (Gapin et al., 2009). It was found that mental wellbeing is significantly predicted by body image among university students (Abbasi & Zubair, 2015). Most of the university students experience changes related to eating habits, body weight, shape and body image (Basow et al., 2007). Negative perception related to body image and early symptoms of eating disturbances, weight concern attitudes and distortions in body image can cause depressive symptoms; onset of eating disorders like bulimia and anorexia can cause obesity in adults (Loth et al., 2014). Body image has significant negative relationship with unhealthy eating behaviors and mental health. Students who have disturbed eating behaviors have poor body image or dissatisfied with their body image (Amissah et al., 2015). There is a positive relation between mental wellbeing and positive body image in university students (Khurshid & Haroon, 2018).

Eating behaviour is an important factor of person's healthy life. If a person has unhealthy eating behaviour like skipping meals, intake of high fat and cholesterol food and consumption of nutrient deficient food then a person may engage in nutritional deficiencies and health problems (Papadaki et al., 2007). Eating behaviour of a person comprises of complex factors which includes genetics, physiological, social, environmental and psychological. All these factors contribute to the food selection and preferences, meal timings and food intake quantity (Eleanor & Nanette, 2011). Healthy eating behaviour has a positive relation with overall physical, psychological health, better life and also lowers the risk of having obesity (Mamplekou et al., 2010). People who are emotionally weak and have poor coping strategies tend to gain weight and may engage in disturbed eating behaviors (Gariepy et al., 2010).The association between determinants of physical environment and impact of environment on eating behavior of university students was explored. The results showed significant relationship between environment and food consumption behavior of students. It was also revealed that students eating behaviors were associated with place where they live and environment where they mostly eat meals. Some students do not avoid eating unhealthy snacks and do not eat healthy food due to the environmental factor. It was recommended by researches to increase the healthy food services in universities and organize awareness programs that help students in getting information about healthy and unhealthy food practices and also their consequences. If universities offered healthy food in cafeterias than students can have healthy eating behaviors (Linda & Karen, 2017).

Role of body image, psychological wellbeing and self-compassion was explored among university students. Results revealed positive significant relationship of body image with self-compassion and mental

wellbeing. Mental wellbeing was significantly predicted by body image and self-compassion in students. In terms of gender, significant gender differences were found on body image. However, there were non-significant differences on mental wellbeing and self-compassion (Abbasi & Zubair, 2015).

## Rationale of study

The study highlights the issues and concerns related to body image, eating behaviors and their impact on psychological wellbeing among university students. Healthy eating behaviors and positive body image have a significant impact on the psychological well being of students. Students are the building blocks of any nation. If they are suffering from mental health issues then the progress of nation will discontinue. So the early assessment and management of psychological problems may help students to pursue a healthy life and a better career.

## Hypotheses

- There would be a negative relationship among poor body image, healthy eating behaviors and mental wellbeing of university students
- Concerns about body image would likely to predict poor mental wellbeing of university students
- Unhealthy eating habits would likely to predict poor mental wellbeing in university students
- Female students would have poor body image, eating behaviors and mental wellbeing as compared to male students

## Method

Cross-sectional research design was used in the research. Purposive sampling strategy was used to select the participants.

### Sample

The sample of the research consisted of 300 BS and MS university students of both genders (males= 150, females= 150) and their age ranged from 18-25 years. Participants were taken from four different public and private sector universities of Lahore, Pakistan which includes Lahore College for Women University LCWU (25%), Government College University GCU (25%), Forman Christian College FCU (25%) and National University of Business administration and Economics NCBA&E (25%).

### Instruments

#### Body Image Scale

Body Image Scale (BIS) was used in the present study (Moeen et al., 2013). It consists of 35 items with 5-point likert scale ranging from 0-4. Cronbach's alpha of scale is .95 and discriminant validity of scale is r= -.19. Scale has three subscales e.g., physical, psychological component and strategies related to body image. High scores on BIS indicate more concern of individual about body image.

#### Warwick-Edinburgh Mental Wellbeing Scale

Warwick-Edinburgh Mental Wellbeing Scale (WEMWS) was used in the present study (Stewart-Brown & Janmohammad, 2008). It consists of 14 items with 5 point likert scale ranging from 1-5. Urdu translated

version of scale was used (Khan & Kazmi, 2017). The scale has good content validity and good test-retest reliability (0.83). The minimum score on WEMWBS is 14 and maximum score is 70. High score on WEMWBS indicate higher level of mental wellbeing of individual.

**Eating Attitude Test-26**

Eating Attitude Test-26 (EAT-26) was used in the present study (Garner & Garfinkle, 1979). It consists of 26 items with 6-point likert scale ranging from 0-5 (never-always). Cronbach's alpha of scale is high (.93) and scale has good criterion validity. Scale has three subscales named as dieting, bulimia/food preoccupation and oral. The cut off score of EAT-26 is 20. Higher than 20 score indicate concerns about eating, body shape and weight but doesn't indicate any eating disorder. Lower than 20 score indicate that a person may be in the phase of denial or may have eating disorders. Scale was translated into Urdu language for use in present study.

**Procedure**

Ethical Committee and Board of Studies gave approval to conduct research. After approval, scales were selected and permissions for using scales in the research was sought from the authors of scales. Body image scale and mental wellbeing scale were available in Urdu language but EAT-26 was translated into Urdu language by a researcher according to Lexicon equivalence method (Neuman, 2006). Also, permission was taken from the authorities of universities for data collection. Written consent was taken from willing participants and they were briefed about the purpose of research. All three scales along with demographic form were provided to participants. The total time taken by participants to fill all the scales was 15 to 20 minutes. Statistical Package of Social Sciences version 22 was used for the analyses of data and results.

## Results

Descriptive statistics were used to find out mean and standard deviation of variables. Frequencies and percentages of demographic variables were also found. Correlation was used to explore the relationship among variables; t-test was used to determine gender differences on all variables. Regression analysis was also used to determine the eating behaviors and body image as predictors of mental wellbeing.

Table 1: Correlation among Eating Behaviors, Body Image and Mental Wellbeing along with their Subscales

| Measures | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| Eating behaviors | - | .90** | .77** | .81** | .40** | .38** | .40** | .33** | -.20** |
| Dieting | - | - | .60** | .62** | .41** | .37** | .41** | .38** | -.14** |
| Bulimia | - | - | - | .57** | .34** | .33** | .33** | .25** | -.19** |
| Oral | - | - | - | - | .10 | .10 | .11 | .04 | -.11 |
| Body Image | - | - | - | - | - | .95** | .96** | .90** | -.25** |
| Physical | - | - | - | - | - | - | .85** | .76** | -.27** |
| Psychological | - | - | - | - | - | - | - | .84** | -.24** |
| Strategies | - | - | - | - | - | - | - | - | -.16** |
| Mental Wellbeing | - | - | - | - | - | - | - | - | - |

**p< .01

Table shows that there is a significant negative relationship between eating behavior and mental wellbeing (r= -.20**, p< .01) and between body image and mental wellbeing (r= -.25**, p< .01). This reveals that higher the individual is concerned with body image and have unhealthy eating behaviors; the poor will be the mental wellbeing.

There is significant positive relation between eating behaviors and body image (r= .38**, p< .01) which shows that higher the individual is concerned about body image; the more unhealthy behaviors will be adopted.

Table 2: Multiple Linear Regression on Body Image and Eating Behaviors as Predictor of Mental Wellbeing

| Variable | Mental Wellbeing | | | | |
|---|---|---|---|---|---|
| | B | SEB | β | t | p |
| Body Image | -.06 | .01 | -.20 | -3.37 | .001 |
| Eating Behavior | -.09 | .04 | -.12 | -2.01 | .045 |

Results of multiple linear regression reveal significant regression equation of body image, eating behaviors and mental wellbeing ($R^2$ =.07, F= 12.45). Body image was found to be a significant negative predictor of poor mental wellbeing among university students which indicates that higher the students concerned with their body image, the poor will be their mental being. Eating behavior was also found to be a significant negative predictor of poor mental wellbeing among university students. This shows that higher the students involve in unhealthy eating behaviors, the poor will be their mental wellbeing.

Table 3: Comparisons of Means of Male and Female University Students on Eating Behaviors, Body Image and Mental Well Being

| Measures | Male students (n=150) | | Female students (n=150) | | | | 95% CI | | |
|---|---|---|---|---|---|---|---|---|---|
| | M | SD | M | SD | t(29) | p | LL | UL | Cohen's d |
| Eating Behaviors | 14.54 | 12.01 | 17.80 | 12.64 | -2.29 | .02 | -6.06 | -.458 | 0.26 |
| Body Image | 54.79 | 34.17 | 52.27 | 33.30 | -644 | .52 | -5.17 | 10.21 | 0.07 |
| Mental wellbeing | 49.96 | 9.86 | 48.42 | 9.76 | 1.35 | .17 | -.69 | 3.77 | 0.15 |

Note CI= Confidence Interval, LL=Lower Limit and UL= Upper Limit

There are significant gender differences on EAT-26, t (298) = .023, CI (-6.06, -.458). Female students have more issues related to eating behaviors as compared to male students. There were non-significant gender differences on body image and mental wellbeing among students.

## Discussion

Plethora of research has suggested that there is a negative relationship among eating behaviors, body image and mental well being. And there is a positive relationship between poor body image and unhealthy eating behaviors (Amissah et al., 2015; Ansari et al., 2014; Griffiths et al., 2016; Khurshid & Haroon, 2018). The findings of the present study are consistent with literature. This reveals that if an individual has unhealthy eating behaviors then he/she may have poor mental wellbeing. Likewise, if an individual is more concerned about body image then he/she will have poor mental wellbeing. In case of students, unhealthy eating behaviors will lower the mental wellbeing of students which affect their academics, achievements and ultimately physical health of students. The students who have poor body image will also have poor mental wellbeing.

It is found that body image is a significant negative predictor of mental wellbeing in university students this means that more an individual is concerned about his/her body image, the poor will be the mental wellbeing. Negative body image perception, fat body shape, heavy body weight create disturbance related to mental health in university students. These findings are also consistent with literature (Abbasi & Zubair, 2015; Marmara et al., 2018). Furthermore, it is also accepted that unhealthy eating behaviors would significantly predict poor mental wellbeing in university students. The results reveal that higher the higher the students indulge in unhealthy eating behaviors, the poor will be the mental wellbeing. This means that individuals who engage in unhealthy eating habits may suffer from depression, anxiety, stress and poor mental wellbeing. These findings are consistent with literature (Wattick et al., 2018).

It is found that female students have poor eating behaviors as compared to male students. Female students showed high issues related to eating behaviors than male students. These findings are supported in literature (Altun & Keser, 2017; Liao et al., 2012). Non-significant gender differences were found in body image and mental wellbeing. This means that male and female students did not differ on body image issues and mental wellbeing. Male and female students were equally concerned about their body image and mental wellbeing. On mental well being, literature supports the findings (Abbasi & Zubair, 2015; Bookwala & Boyar, 2008). Another research revealed that there are no gender differences in body image, eating behaviour and mental wellbeing (Amissah et al., 2015). However, inconsistent findings were found in literature that male students show high concerns related to body image and weight than female students (Yumurtaci, 2012).

## Conclusion

The findings of the study revealed that there is a negative relationship among body image, eating behavior and mental wellbeing. Significant gender differences are found in eating behavior of students which shows poor eating behaviors of female students as compared to male students. Non-significant gender differences are found in body image and mental wellbeing of students. Body image and eating behaviors are significant negative predictors of mental wellbeing this means that poor body image and unhealthy eating behaviors of university students predict poor mental wellbeing of university students.

## Implications

In Pakistan, many people do not have awareness about body image, eating behaviors and mental wellbeing. Through this research people will know about healthy/unhealthy eating behaviors, positive/negative body image and mental wellbeing. Also, very few researches are conducted on body image, eating behavior and mental wellbeing and limited literature was found related to Pakistani context. More researches should be conducted in Pakistan on body image, eating behaviour and mental wellbeing. The findings of this research will be helpful for further researches on related aspects. It will be also beneficial for health professionals and clinical psychologists to assess above mentioned issues at the early stage and promote mental health, healthy eating behaviors awareness among students. The awareness may be in the form of workshops, seminars and presentations for the promotion of healthy eating habits, positive body image and positive mental health.

## Limitations and Suggestions

Literature related to present study was limited especially with reference to Pakistan. Furthermore, the research findings cannot be generalized because a sample was taken from Lahore city only. In future

researches, sample should be taken from multiple cities to generalize the findings. And it is further suggested, to design a mix method study.

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