

Self-criticism and Fear of Negative Evaluation among University Students With and Without Obesity

Shamyle R. Khan and Irum Naqvi

Quaid-i-Azam University

The present research aimed to examine the differences in self-criticism and fear of negative evaluation among university students with and without obesity. A purposive sample of university students with obesity ($n = 109$) and without obesity ($n = 141$) with age range 18 to 25 years ($M = 22$, $SD = 1.63$) participated in the research with their full consent. The self-report instruments of Levels of Self-criticism Scale (Thompson & Zuroff, 2004) and Brief Fear of Negative Evaluation – Straightforward (Carleton, McCreary, Norton, & Asmundson, 2006) were used to measure self-criticism and fear of negative evaluation, respectively. The results confirmed a positive relationship between the levels of self-criticism and fear of negative evaluation in both university students with and without obesity. Students with obesity had higher level of internalized self-criticism as compared to the students without obesity. Girls were reported to have higher internalized self-criticism as compared to boys in both groups related to obesity. The findings of the present study are speculated to have sound implications in the fields of medical health profession and education psychology for intervention planned to reduce weight based stigmatization and as a contribution to explanation of self-criticism and fear of negative evaluation in the Pakistani cultural context.

Keywords. Self-criticism, fear of negative evaluation, obesity, body mass index (BMI)

The present study was aimed at self-criticism and fear of negative evaluation as present in the university students with and without obesity. University life is a very challenging time in a student's academic as well as personal life. The range of exposure it offers in the social domain as well as to the world of academia is overwhelming

Shamyle R. Khan, and Irum Naqvi, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.

Correspondence concerning this article should be addressed to Shamyle R. Khan, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan. E-mail: shamylerezwan91@gmail.com

at first. The students enter university at a very critical age. Early adulthood is the time when students are at a stage of forming a concrete self-image of themselves by relating to others, and at times, by defining their abilities as evaluated by others (Penuel & Wertsch, 2010). The physical appearance of any individual has always come into the first consideration regardless of the grounds he needs to be evaluated on. It has become a global trend for people to look and stay healthy, and this is often times interpreted into the physical appearance of slimness of an individual. Those who are overweight in appearance, more often face unfavorable evaluations from their peers and families as well (Wright, O'Flynn & Macdonald, 2006). A self-critical person strive to his/her utmost to gain approval of others by engaging in an endless series of self-correcting behaviors. On the contrary, such striving may be not towards gaining approval, rather towards avoiding social rejection. Fear of rejection from a social group can act as a protective factor to work towards set goals (Miller, 1948). However, preoccupation with a fear of negative evaluation from others negatively affects an individual's performance (Wong, 2016).

Obesity is declared as a global epidemic by the World Health Organization (WHO) and has presented itself as a public health challenge across the globe. It is intricately linked with various psychological and physical health risks, and renders the person vulnerable to develop a range of associated disorders further affecting the well-being of a person with obesity (WHO, 1998). International Diabetes Federation (as cited in Jawwad, 2005) reported that an estimate of 1.1 billion people is overweight and 320 billion is obese based on a worldwide calculation. Obesity is identified as cause of more than 2.5 million deaths per year. This estimate is expected to double in size by the year 2030. Worldwide obesity is one of the fastest growing problems in developing countries (American Public Health Association, 2013; Aylott, Brown, Copeland & Johnson, 2008; Braunstein, 2010; El-Hazmi & Warsy, 1997; Mokdad et al., 2003).

Irksome conditions of obesity prevalence are not much different in Pakistan. Bharmal (2000), focusing in Pakistan, reports that obesity in childhood and adolescence is increasing in developing countries Pappas, Akhtar, Gergen, Hadden, and Khan (2001) reported on the health status of the Pakistani population that the overweight prevalence rates for adults aged 25-64 years are 13.2% for men and 22.6% for women. Nanan (2002) also gives the similar comments about Pakistani population with respect to obesity. Khan, Afridi, and Khan (2004) also reported similar details.

Prevalence of obesity as a physical health concern brings along concerns to the psychological health domain as well. This is impacted on by not only personal conceptualization of body image, but by the social and culturally dictated standards of beauty and health as well (Wright, O'Flynn, & Macdonald, 2006). A range of adverse outcomes related to obesity is associated with weight bias for overweight and obese individuals, affecting emotional well-being, social relationships, and physical health. Weight bias has powerful implications for emotional well-being. Weight-based teasing and victimization is related to poorer body image, lower self-esteem, and higher risk of depression (Davison & Birch, 2002; Eisenberg, Neumark-Sztainer, & Story, 2003; Friedman et al., 2012; Hayden-Wade et al., 2012; Myers & Rosen, 1999). Youth with obesity who experience weight-based victimization from peers are two to three times more likely to engage in suicidal thoughts and behavior (Eisenberg, et al., 2003).

This lack of emotional well-being puts the individual with obesity at risk of being overly critical of himself and assumes others as holding negative views towards him as well. Obesity thus hampers the individual from developing healthy interpersonal bonds with peers and family and this factor contributes towards the development of Self-criticism and fear of negative evaluation in the obese individuals (Hill & Williams, 1998; Latif, Khan & Farooq, 2011; Schwartz & Brownell, 2004; Strauss & Pollack, 2003; Vander Wal & Thomas, 2004).

The trait of Self-criticism has been identified as a particularly malignant personality variable that is commonly implicated in the development and maintenance of depression (Blatt & Zuroff, 1992). Thompson and Zuroff (2004), built on the same concept of self-criticism and introduced the two levels of Self-criticism. The first is the comparative Self-criticism which is a negative valuation of oneself when put to comparison with others. The focus of this level is on the comparison of self with others being held as highly unfavorable, as they are taken to be superior, hostile or critical, and hence posing discomfort of being evaluated with or being exposed to (Thompson & Zuroff, 2004).

The second level of Self-criticism as defined by Thompson and Zuroff (2004) is the internalized self-criticism. It is the negative image of self formed when seen in comparison with one's inner, personal standards. These individual standards are especially high and ever increasing. This results in an incessant failure to meet these self-set standards. In contrast to the comparative self-criticism, the focus here is on an individual's image of self as lacking. A self-critical individual will not reward his/herself on achieving the standards that he/she has

set, rather will redefine that success as failure in comparison to the new higher standards of self he/she resets (Thompson & Zuroff, 2004).

Fear of negative evaluation is studied as the central element of social anxiety or social phobia (Clark & Wells, 1995; Rapee & 1997). A wealth of empirical studies second this view that fear of negative evaluation is the foundation in building the concept of social anxiety (Coles, Turk, Heimberg, & Fresco, 2001; Horley, Williams, Gonsalvez, & Gordon, 2004; Mansell & Clark, 1999; Mokdad et al., 2003).

Indirect positive relationship of obesity is present with Self-criticism and fear of negative evaluation. As depression, negative self-view, and low self-esteem are the defining features of Self-criticism, the relationship of obesity with Self-criticism is also inferred from these findings (Hill & Williams, 1998; Latif, Khan & Farooq, 2011; Schwartz & Brownell, 2004; Vander Wal & Thomas, 2004). Obesity has been linked to the formation of a negative self-image influenced by body weight (Schwartz & Brownell, 2004). The bodyweight of people with obesity leads them to develop greater levels of body dissatisfaction (Latif, Khan, & Farooq, 2011), which causes a negative self-attitude in them, damaging their psychological well-being (Annis, Cash, & Hrabosky, 2004).

The negative self-view, hence, formed and the perception that others will also evaluate them in a negative manner paves way to fear negative evaluation of peers. As a coping strategy for this fear, one avoids situations where one may be evaluated by peers, thus, limiting social interactions of people with obesity (Levinson & Rodebaugh, 2012; Puhl & Luedicke, 2012). Literature reveals a void present on the study related to trait self-criticism and experience of fear of negative evaluation in the present cultural context. Although psychological distress and dissatisfaction has been assessed in the sample with overweight and obesity (Cloostermans, Picave, Bemelmans, Verschuren, & Proper, 2015; O'Brien, et al., 2016; Sutton, 2016), however this vast amount of western literature pointing towards the presence of self-criticism and fear of negative evaluation in the people with obesity (Alegría, & Larsen, 2015; Starrs, Dunkley, & Moroz, 2015) has not been observed in the Pakistani literature. There is a need to fill this gap and study the relationship of these variables with each other in Pakistani context.

In Pakistani culture, like any other developing country, the norms of society are largely influenced by the powerful media and the demands for conformity being a collectivistic culture have reached a

considerable height. The promotion of low body weight and slim figures is being increasingly highlighted as approval gaining quality in a person (Wright, O'Flynn, & Macdonald, 2006). The increased media exposure of the ideal body type has been confirmed for its negative effects on how individuals view their body and consequently their satisfaction with it in Pakistan; giving way to the associated Self-criticism and fear of negative evaluation (Khan, Khalid, Khan, & Jabeen, 2011). Najam and Ashfaq (2012) reported that in the present cultural context, female as compared to male counterparts are more concerned with the difference in their current and ideal body shape and exhibit greater dissatisfaction with their weight and body. Obesity is a highly stigmatized characteristic, and is often seen as a subject of ridicule (Puhl & Brownell, 2001). In a collectivist culture like Pakistan, acting according to social norms and mores are central in gaining social acceptance (Triandis & Suh, 2002). It helps an individual adjust to his/her society, and deviating from it may pose certain social as well as psychological challenges for that person. Dolan (1991) states that culture largely dictates the preferences for body type in its people and comparative to western countries, people in nonwestern countries like Pakistan prefer relatively larger body type. However, this difference in preference is reduced and females in Pakistan evaluate their body weight by the same western standards when exposed to similar culture through mediums such as English medium education, media, etc. (Mahmud & Crittenden, 2007). Self-objectification among females then is a well evidenced factor leading to psychological disorders of eating, as then they internalize the prescribed ideals of certain physical appearance and strive towards achieving the same as a means to achieve social and personal approval (Roberts, 2015; Rollera, & Piccoli, 2015). Given the strong link of such socio-cultural factors, as present in our society, with psychological distress in obese people, the present study addresses the need for research to explore whether the same holds true for the people with obesity in Pakistan.

Even though the association of self-criticism and fear of negative evaluation have been indirectly studied in the sample with obesity (Annis, Cash, & Hrabosky, 2004) through focusing on the prominent features of each construct separately; the presence of these constructs has seldom been directly measured in such sample. The present research aims to study the relative existence of self-criticism and fear of negative evaluation among university students with and without obesity. It is also aimed to confirm the relationship of self-criticism and fear of negative evaluation in the Pakistani sample. The study is speculated to provide an interesting approach to view the affect of

challenges posed by gender role and social evaluations, which the university life sets for its students, in addition to academics. The prime objectives of the present study are; to observe the direction and degree of relationship between the comparative and internalized self-criticism, fear of negative evaluation and obesity among university students, and to observe the comparative and internalized levels of self-criticism and fear of negative evaluation as present among girls with and without obesity and boys with and without obesity. The present study tested two hypotheses. The first is that comparative and internalized self-criticism is positively related with fear of negative evaluation among university students with and without obesity. The second hypothesis is that internalized self-criticism is higher in female university students with and without obesity as compared to male university students with and without obesity.

Method

Participants

A sample of 250 university students, including boys ($n = 124$, 49.6%) and girls ($n = 126$, 50.4%), was collected from six universities of Islamabad and Rawalpindi that is, from public ($n = 117$, 46.8%), private ($n = 84$, 33.6%) and semi-private ($n = 49$, 19.6%) education sector. The sample was collected through purposive sampling technique. Inclusion criteria of the study required students enrolled in undergraduate university program or above for at least one semester, and could be categorized into the groups with and without obesity on the basis of their Body Mass Index (BMI). Students were excluded from the sample if they were a student at their respective university for less than a semester's duration.

Measures

Levels of Self-criticism Scale (LOSC). This Scale has been developed by Thompson and Zuroff (2004). This questionnaire consists of 22 items. It is a two factor self-report inventory measuring two dysfunctional types of self-criticisms as subscales: Comparative and Internalized Self-criticism. Most of the items on the scale are positively phrased, with only item numbers 6, 8, 11, 12, 16, 20, and 21 negatively phrased. It is a 7-point Likert type rating scale measuring the degree of agreeability with each item. The response options for each item range from 1 (*strongly disagree*), through 4 (*unsure*), to 7 (*strongly agree*). This scale included items statements such as; "I often get very angry with myself when I fail"; and "I frequently compare myself with my goals and ideals".

The Comparative subscale has 12 items and Internalized has 10 items. The minimum score of the scale is 22 and the maximum score is 154. High score on LOSC indicates high self-criticism and vice versa. The original scales were used in the present study and no translations were carried out. The scores on each subscale were computed as continuous.

Brief Fear of Negative Evaluation - Straightforward Scale (BFNE-S). It is a 12 item self-report measure of fear and distress related to negative evaluation from others. Rodebaugh et al. (2004) and Weeks, Norton, and Heimberg (2009) have reported that the 8 straightforwardly worded items of the BFNE are more reliable and valid indicators of fear of negative evaluation than the reverse-scored items. Based on 8 items, it is a revised version of the BFNE (Carleton, Collimore, McCabe, & Antony, 2011). Each item on this self-report measure is rated on a 5-point Likert scale, ranging from 1 (*not at all characteristic of me*) to 5 (*extremely characteristic of me*). This scale includes item statements such as; “I am afraid that others will not approve of me”; and “I often worry that I will say or do wrong things”. A total score on the scale corresponds to the degree of fear an individual holds for being negatively evaluated. The minimum score of the scale is 8 and the maximum score is 40. High score indicates high fear of negative evaluation. The original scale was used in the present study and it was not translated. The score of each participant on this scale was computed as continuous.

Body Mass Index (BMI). It is an index of weight-for-height used to classify individuals as with obesity or without obesity. It is defined as a person's weight in kilograms divided by the square of his height in meters (kg/m^2) (WHO, 2012). Specifically, for the Asia Pacific Region, a BMI ratio of < 18.5 is categorized as underweight, from 18.5 to 22.9 is normal range, ≥ 23 is overweight, and ≥ 25 is obese (WHO, 2000). As Pakistan is also among the countries included in the Asia Pacific Region (United Nations, 2014), the sample of the present study followed the BMI categories as mentioned above. For the purpose of the present study, sample with BMI ratios that are ≥ 25 are categorized as With Obesity whereas the sample with the BMI ratios ≤ 24.9 are categorized as Without Obese (Aslam et al., 2010; Leung et al., 2008; Jaleel, 2009; Nanan, 2002).

Procedure

The study was conducted in the universities within the twin cities of Islamabad and Rawalpindi. After taking permission from the official authorities of each institute, the students were individually approached through purposive sampling technique. Informed consent

was obtained from each participant and they were briefly explained the purpose of the research. All participants were assured that the information obtained will be kept confidential and will be solely used for the purpose of research. Each participant was provided a copy of the demographic sheet, LOSCS, and BFNE-S. Instruction in both written and verbal form were given to the participants in order to direct them in correctly responding to the questionnaires. The participants were also told that they had the right to withdraw from participating if they felt unwilling or uncomfortable even if in the middle of responding to the questionnaire, although full participation was highly encouraged. Assistance was provided to the participants to answer any queries they had about the procedure. The participants and the authorities of each institute were genially thanked for their support and cooperation.

Results

To achieve the objectives of the study, the data collected from the sample was statistically analyzed. To find the relationship between the two levels of self-criticism that is, internalized self-criticism and comparative self-criticism, fear of negative evaluation and obesity among university students, Pearson Moment Correlation analysis was run on the collected data. The second objective of the study was to identify the difference in the presence of comparative and internalized self-criticism, and fear of negative evaluation among girls and boys with and without obesity. To explore this, independent sample *t*-test was applied on the split data of groups with and without obesity to find the mean differences across gender in each group.

After obtaining the questionnaires, the BMI (kg/m^2) of each participant was calculated using their respective height and weight as reported by them. On the basis each participant's BMI, they were categorized as group with and without obesity.

Data were collected from students of science ($n = 104$) and humanities group ($n = 121$) including 108 boys and 117 girls. Age range of the students was 16 to 19 years ($M = 17.41$, $SD = 0.95$). Students were selected from public sector colleges of Islamabad and Rawalpindi. Participants were day scholars, and were reared by their both parents from birth to the minimum age of 16 years. Eight students were excluded on the basis of selection criteria. Demographic information was obtained through demographic data sheet.

Table 1

Inter-correlations, Means, Standard Deviations, and Chronbach's Alpha for BMI, LOSC, BFNE-S along University Student Groups with and Without Obesity (N = 250)

Scales	No. of items	1	2	3	4	α	<i>M</i>	<i>SD</i>
University Students with Obesity ^a								
1. BMI		-						
LOSC								
2. CSC	12	.15	-			.51	43	8.16
3. ISC	10	.23*	.21*	-		.72	45	9.62
4. <i>BFNE-S</i>	8	.21*	.42**	.32**	-	.85	20.42	7.48
University Students without Obesity ^b								
1. BMI		-						
LOSC								
2. CSC	12	.06	-			.42	42.72	7.38
3. ISC	10	-.1	.13	-		.80	41.73	11.02
4. <i>BFNE-S</i>	8	-.00	.30**	.34**	-	.82	19.09	6.67
Total University Students								
1. BMI		-						
LOSC								
2. CSC	12	.08	-			.50	43.14	10.5
3. ISC	10	.16**	.16*	-		.81	42.84	7.71
4. <i>BFNE-S</i>	8	.14**	.36**	.34**	-	.83	19.67	7.05

Note. ^a*n* = 109; ^b*n* = 141; BMI = Body Mass Index; LOSC = Levels of Self-criticism Scale; CSC = Comparative Self-criticism; ISC = Internalized Self-criticism; *BFNE-S* = Brief Fear of Negative Evaluation-S.

* $p < .05$. ** $p < .01$.

Table 1 illustrates Chronbach's alpha reliability of the instruments in the present study sample and the relationship between these four measures for the constructs studied in with and without obesity group of university students. The Chronbach's alpha coefficient reliability for the Comparative Self-criticism in the present study was ranged from .42 to .51 and .72 to .81 for the Internalized Self-criticism in with obesity, without obese and the overall sample of university students. The subscale of Internalized Self-criticism was found to be highly reliable to be used for further analyses (Nunnally & Bernstein, 1994). By the same standards, the alpha reliability of Comparative Self-criticism is acceptable. The Chronbach's alpha coefficient reliability for the *BFNE-S* ranges from .82 to .85 in with obesity, without obesity and the overall sample of university students in the present research. These all values are known to be highly reliable to carry out further analyses (Nunnally, & Bernstein, 1994). The prevalence rate of student sample with obesity based on their

BMI was calculated to be consisting of 52 boys (47.7%) and 57 girls (52.3%) and without obesity having a count of 72 boys (51.1%) and 69 girls (48.9%).

BMI, as a measure of obesity, holds significant positive relationship with internalized self-criticism and a nonsignificant positive correlation with comparative self-criticism. BMI is significantly positively correlated with fear of negative evaluation. Both comparative and internalized levels of self-criticism are significantly correlated with the fear of negative evaluation. This evidence supports that, comparative and internalized self-criticism is positively related with fear of negative evaluation among all university students, and not just for the students with obesity as hypothesized. A moderate significant positive relationship between the subscales of Comparative and Internalized Self-criticism ($p < .05$) is supported by Thompson and Zuroff (2004).

Table 2 shows the results of independent sample t -test for comparing the gender based mean differences on the BFNE-S and Comparative and Internalized Self-criticism subscales of LOSC.

Table 2

Means, Standard Deviation and t -values on BFNE-S, CSC, and ISC between Boys and Girls with and without Obesity

Scales	Boys		Girls		t	df	p	95% CI		Cohen's d
	M	SD	M	SD				LL	UL	
University Students with Obesity ^a										
BFNE-S	19.19	7.21	21.58	7.61	1.66	105	.09	-5.23	.455	-0.32
LOSCS										
CSC	42.00	8.56	43.91	7.73	1.22	107	.22	-5.00	1.18	-0.23
ISC	41.51	10.31	48.08	7.79	3.77	107	.00	-10.0	-3.1	-0.72
University Students without Obesity ^b										
BFNE-S	19.16	6.32	19.01	7.07	.14	137	.89	-2.1	2.40	0.02
LOSCS										
CSC	42.61	5.95	42.84	8.66	.18	139	.85	-2.7	2.23	-0.03
ISC	38.94	10.96	44.65	10.38	3.17	139	.00	-9.3	-2.1	-0.53
Total University Students ^c										
BFNE-S	19.18	6.69	20.16	7.40	-1.2	244	.27	-2.75	.79	-0.14
LOSCS										
CSC	42.35	7.14	43.32	8.25	-.99	248	.32	-2.89	.95	-0.12
ISC	40.02	10.73	46.21	9.42	-4.8	248	.00	-8.69	-3.6	-0.61

Note. ^a $n = 109$, boys = 52, girls = 57; ^b $n = 141$, boys = 72, girls = 69; $N = 250$, boys = 124, girls = 126; CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit; BFNE-S = Brief Fear of Negative Evaluation-S; LOSC = Levels of Self-criticism Scale; CSC = Comparative Self-criticism; ISC = Internalized Self-criticism.

*** $p < .001$.

Results in Table 2 reveals that there are significant gender differences on internalized self-criticism, with the girls showing greater self-criticism than boys in all groups. This confirms the second hypothesis that internalized self-criticism is higher in girls as compared to boys in both groups.

Based on the strong suggested interaction between gender of university students and BMI on internalized self-criticism they experience, a two way ANOVA was carried out to further explore the meaning of these findings (see Table 3).

Table 3

2 x 2 Analyses of Variance for Gender (Boys and Girls) x BMI Groups (with Obesity and Without Obesity) on Internalized Self-criticism (N= 250)

Source	Sum of Squares	df	Mean Squares	F	P	η^2_p
Gender	2312.986	1	2312.986	23.033	.000	.086
BMI Groups	554.422	1	554.422	5.521	.020	.022
Gender x BMI Groups	11.371	1	11.371	.113	.737	.000
Error	24702.972	246	100.419			
Total	492925.000	250				

The *F*-value for main effects are found to be significant, while the interaction effect is found to be nonsignificant in this case.

Discussion

The relationship of self-criticism and fear of negative evaluation was separately studied in the university students with and without obesity as well as of the total sample of university students (see Table 1). The strength of the relationship between the comparative Self-criticism and fear of negative evaluation was greater in students with obesity as compared to students without obesity. Whereas, the relationship strength between internalized self-criticism and fear of negative evaluation, was greater in the group without obesity as compared to the group with obesity. The positive relationship between these phenomena is in consistency with the findings of the previous studies. In a study investigating the diagnostic specificity of self-criticism for depression, it was revealed that self-criticism was present in significantly high levels in patients of fear of negative evaluation (Cox et al., 2000). In another study, Cox et al. (2002) provided a retrospective view of the relationship of self-criticism with fear of

negative evaluation that is, a decrease in Self-criticism was related to the decrease in fear of negative evaluation. Moscovitch (2009) in his model explaining the fears leading to the outcome of social phobia also shed light on the positive relationship between critical self-view and the fear that the individual will receive negative evaluation from others as well. A high rate of comorbidity between Self-criticism and social phobia is found to exist in the US (Cox, Fleet, & Stein, 2004; Sachs-Ericsson, Verona, Joner, & Preacher, 2006).

The presence of the common prominent feature of psychological distress, negative cognitive style and self-generated negative schemas between self-criticism and fear of negative evaluation have already been explored in the Pakistani sample (Sajjad, Sameer, & Khalid, 2006; Najam, & Ashfaq, 2012). The present results highlight the direct relationships between these two phenomena. The strength of their relationship across the two groups of students with obesity and university students without obesity show the generalizability of their relationship across varied samples. The results show that university students, irrespective of their BMI, experience a great deal self-criticism as well as have certain degree of apprehensions for the kind of appraisal they receive from their peers or teachers or from the general evaluative environment which the university offers.

The calculated height-to-weight ratio (BMI) in the groups of with obesity, without obesity and total university students was tested in correlation with these two constructs as well (see Table 1). The results showed that there was a significant positive relationship of BMI, of university students with obesity ($p < .05$) and the overall sample of university students ($p < .01$), with internalized self-criticism and fear of negative evaluation. The relationship between the BMI of sample without obesity was negative with the internalized self-criticism and fear of negative evaluation, however, it was not notable one ($p > .05$). This finding further confirmed the decreased psychological well-being of people with obesity. This shows that as the obesity in a sample increases, the level of internalized self-criticism and subsequently the degree of fear of negative evaluation also increase in them. From this finding, it can be inferred that weight is associated with the kind of self-impression a person has, and the extent to which the consciousness towards one's weight is related to the degree of experiencing the apprehension of being negatively assessed.

Independent sample *t*-test analysis was run to compare the mean scores on the subscales of comparative and internalized Self-criticism across gender (see Table 2). The analysis was carried out separately for the groups with and without obesity, as well as for the collective sample of university students. The results computed were in line with

the previous findings for internalized self-criticism that is, girls from both groups with and without obesity were high on internalized Self-criticism as compared to the boys from both with and without obesity ($p < .001$). Girls were also shown to have higher levels of internalized Self-criticism as compared to boys in the collective comparison of university students ($p < .001$).

This result is supported by Thompson and Zuroff (2004) who also reported that girls scored high on the Internalized subscale as compared to boys. Self-criticism is also seen to be high in girls than in boys in another study (Vanea, & Ghizdareanu, 2012). Vander Wal and Thelen (2000) reported that girls with obesity show greater concern over their weight and dissatisfaction with the influence it has on their self-image. It has also been observed that obesity resulted in a negative effect on the self-attitudes of people. This affect was greater in women as compared to men (Stake, & Lauer, 1987). Self-criticism has been extensively studied in the women population (Amitay, Mongrain, & Fazaa, 2008). This indirectly reflects the higher presence of self-criticism in them which is validated by the results of the present study. Additionally, these findings directed towards further exploring obesity and gender with the outcome variable of internalized self-criticism through a multivariate analysis supporting the above-mentioned literature that girls experience greater internalized self-criticism as compared to boys, and girls and boys with obesity experience greater internalized Self-criticism as compared to their respective counterparts without obesity (see Table 3).

Gender differences were also explored on Comparative Self-criticism subscale (see Table 2). The results showed that there was nonsignificant difference in the scores of girls and boys on the Comparative subscale of LOSC, for both groups. This means that both gender experience equal level of comparative self-criticism. In support of this result is the finding by Thompson and Zuroff (2004) reporting that gender scores do not differ on the subscale of Comparative Self-criticism.

The study explored gender differences on fear of negative evaluation in groups of university students with and without obesity and overall sample (see Table 2). Means of the scores on BFNE-S of both genders were compared for all three groups. The results found no noteworthy differences across gender for any group on the experience of fear of negative evaluation. This result is supported by other empirical researches as well (Carleton et al., 2011; Koydemir & Demir, 2007).

Findings from this study should contribute in clinical settings where the knowledge that self-criticism and fear of negative evaluations are experienced commonly among youth, and the identified vulnerable population of girls and individuals with obesity, could help facilitate clinical investigation and treatment plans sensitive to these issues. Viewing the present evidence in the context of gender roles in a collectivist culture of Pakistan, it can be inferred that girls in universities are more prone to experience higher self-criticism and fear of negative evaluation as compared to boys (Mahmud & Crittenden, 2007). This happens to a greater degree as their BMI starts to escalate as a result of self-objectification. They evaluate their self on the outward standards of society, leading to psychological distress even when not facing medical concerns related to obesity (Wright, O'Flynn & Macdonald, 2006). Sociocultural influence is thus a prominent indirect factor observed to be present in the context of present evidence (Roberts, 2015; Rollera, & Piccoli, 2015). The operations of self-objectification under influence of prescribed gender roles at an age where identity formation is in process has higher chances of impacting the person in question, as can be seen in the present evidence picture of the university sample (Penuel & Wertsch, 2010).

Conclusion

The present study was set to explore the presence of Self-criticism and fear of negative evaluation as existing in the collectivist and conformity demanding culture of Pakistan. The existence was measured in the university environment among students with and without obesity. The academically and socially evaluative atmosphere offered by a university was deemed best to study the non clinical population as experiencing the maladaptive phenomena of Self-criticism and fear of negative evaluation. The noteworthy results of the present study reveal that having an abnormal body weight places the ones with obesity to experience higher levels of internalized Self-criticism than their counterparts without obesity when the environmental conditions are set as same. The same was found to exist in the individual groups of boys and girls, whereas girls were overall seen to be more prone towards experiencing internalized Self-criticism than boys, and this effect only becomes pronounced when observed in girls with obesity. The much less studied relationship between Self-criticism and fear of negative evaluation was also confirmed on the Pakistani sample. Also the strong positive impact of Self-criticism on the experience of fearing of socially evaluative situations is in strong

empirical coherence with the relationship between these two constructs as studied in other cultures of the world. This implies that all cultures to some extent demand conformity, importance over which is placed through the social appraisal made for each individual. Body appearance has a considerable association with the impression one has of himself, and consequentially affects an individual's performance in various life domains.

Limitations and Suggestions

The present study has some of the following limitations and suggestion:

1. The instruments of LOSC and the BFNE-S used for the measurement self-criticism and fear of negative evaluation, respectively, are both self-report measures. This increases the chance of biasness in responses. The Self-criticism subscale of the Depressive Experiences Questionnaire could also be used to provide more reliable results for self-criticism. Qualitative research on the issues of self-criticism and fear of negative evaluation would provide a wider range of insight into these phenomena.
2. The age range of the sample in the present study is limited to only young adults. This research does not provide evidence of the existence and extent of self-criticism and fear of negative evaluation as present in other age groups. A larger sample including a wider age range used in the study would increase the generalization potential of the results.
3. The study was limited to the sample from the twin cities of Islamabad and Rawalpindi, limiting the generalization of results on a larger scale.
4. It is suggested that future studies investigate the role of self-criticism in predicting the degree of fear of negative evaluation in the context of obesity.

Implications

The results of the present study have some sound implications.

1. The higher risk identified in students with higher BMI for developing maladaptive internalized self-criticism serves as evidence to condemn weight based stigmatization, and to

reduce negative social connotations with body weight in education institutions.

2. The relationship established between the levels of self-criticism and fear of negative evaluation in the Pakistani cultural context serves as an important guiding block to further research in this area.
3. The finding of this study highlighting the trait of self-criticism as being more prevalent in girls than in boys among university students, should serve as a cue for the academic administrations to introduce small scale workshops for their students in order to facilitate the acceptance of all body types and to build tolerance of differences among them in general.
4. These findings should prove significant in the work of an education or school counselor in Pakistan that psychological distress as an outcome of high BMI exists in our culture as well, and the present research provides empirical evidence for the notion.
5. This research provides important evidence that normal population also experiences psychologically maladaptive phenomenon of self-criticism and fear of negative evaluation. Intervention planning to curb these issues should be able to get great help from this study, because if these issues go unchecked, it may lead to the development of full-fledge psychological and eating disorders.

References

- Alegría, C. A., & Larsen, B. (2015). "That's who I am: A fat person in a thin body": Weight loss, negative self-evaluation, and mitigating strategies following weight loss surgery. *Journal of the American Association of Nurse Practitioners*, 27(3), 137-144.
- American Public Health Association (2013). *Obesity and overweight children: The hidden epidemic*. Retrieved from <http://www.apha.org/programs/resources/obesity/defaulttest.htm>
- Amitay, O. A., Mongrain, M., & Faza, N. (2008). Love and control: Self-criticism in parents and daughters and perceptions of relationship partners. *Personality and Individual Differences*, 44(1), 75-85. doi: 10.1016/j.paid.2007.07.020
- Annis, N. M., Cash, T. F., & Hrabosky, J. I. (2004). Body image and psychosocial differences among stable average weight, currently overweight, and formerly overweight women: the role of stigmatizing experiences. *Body Image*, 1(2), 155-167. doi:10.1016/j.bodyim.2003.12.001

- Aslam, M., Saeed, A., Pasha, G., & Altaf, S. (2010). Gender differences of body mass index in adults of Pakistan: A case study of Multan city. *Pakistan Journal of Nutrition, 9*(2), 162-166.
- Aylott, J., Brown, I., Copeland, R., & Johnson, D. (2008). *Tackling obesities: The Foresight Report and implications for local government*. Sheffield Hallam University. Retrieved from <http://repad.org/giresss/docs/cahier23/12.%20Tackling%20Obesities%20The%20Foresight%20Report%20and%20Implications%20for%20Local%20Government%20-%20Full%20report.pdf>
- Bharmal, F. Y. (2000). Trends in nutrition transition: Pakistan in focus. *Journal-Pakistan Medical Association, 50*(5), 159-167. Retrieved from http://jpma.org.pk/full_article_text.php?article_id=3078
- Blatt, S. J. (1995). The destructiveness of perfectionism: Implications for the treatment of depression. *American Psychologist, 50*(12), 1003-1020. doi: 10.1037/0003-066X.50.12.1003
- Blatt, S. J., & Zuroff, D. C. (1992). Interpersonal relatedness and self-definition: Two prototypes for depression. *Clinical Psychology Review, 12*(5), 527-562. doi:10.1016/0272-7358(92)90070-O
- Braunstein, G. D. (2010, June 21). *Childhood obesity: An epidemic that's growing up fast*. The Huffington Post. Retrieved from http://www.huffingtonpost.com/glenn-d-braunstein-md/childhood-obesity-an-epid_b_619311.html
- Carleton, R. N., Collimore, K. C., McCabe, R. E., & Antony, M. M. (2011). Addressing revisions to the Brief Fear of Negative Evaluation Scale: Measuring fear of negative evaluation across anxiety and mood disorders. *Journal of Anxiety Disorders, 25*(6), 822-828. doi: 10.1016/j.janxdis.2011.04.002
- Carleton, R. N., McCreary, D. R., Norton, P. J., & Asmundson, G. J. G. (2006). Brief Fear Of Negative Evaluation Scale—Revised. *Depression and Anxiety, 23*(5), 297-303. doi:10.1002/da.20142
- Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In Heimberg, R. G., Liebowitz, M. R., & Hope, D. A. Eds. *Social phobia: Diagnosis, Assessment, and Treatment* (pp. 69-93). New York: The Guilford Press.
- Cloostermans, L., Picavet, H. S. J., Bemelmans, W. J., Verschuren, W. M., & Proper, K. I. (2015). Psychological distress as a determinant of changes in body mass index over a period of 10 years. *Preventive Medicine, 77*, 17-22.
- Coles, M. E., Turk, C. L., Heimberg, R. G., & Fresco, D. M. (2001). Effects of varying levels of anxiety within social situations: Relationship to memory perspective and attributions in social phobia. *Behaviour Research and Therapy, 39*(6), 651-665. Retrieved from <http://www.temple.edu/phobia/int/Publications/2001/173%20Coles%20et%20al%20001%20Varying%20levels%20of%20anxiety.pdf>

- Cox, B. J., Fleet, C., & Stein, M. B. (2004). Self-criticism and social phobia in the US National Comorbidity Survey. *Journal of Affective Disorders, 82*(2), 227-234. doi:35400012065794.0070
- Cox, B. J., Rector, N. A., Bagby, R. M., Swinson, R. P., Levitt, A. J., & Joffe, R. T. (2000). Is Self-criticism unique for depression? A comparison with social phobia. *Journal of Affective Disorders, 57*(1-3), 223. doi: 10.1016/S0165-0327(99)00043-9
- Cox, B. J., Walker, J. R., Enns, M. W., & Karpinski, D. C. (2002). Self-criticism in generalized social phobia and response to cognitive-behavioral treatment. *Behavior Therapy, 33*(4), 479-491. doi:10.1016/S0005-7894(02)80012-0
- Davison, K. K., & Birch, L. L. (2002). Obesigenic families: Parents' physical activity and dietary intake patterns predict girls' risk of overweight. *International Journal of Obesity and Related Metabolic Disorders: Journal of the International Association for the Study of Obesity, 26*(9), 1186. doi:10.1038/sj.ijo.0802071
- Dolan, B. (1991). Cross cultural aspects of anorexia nervosa and bulimia: A review. *International Journal of Eating Disorders, 20*, 67-78.
- Eisenberg, M. E., Neumark-Sztainer, D., & Story, M. (2003). Associations of weight-based teasing & emotional well-being among adolescents. *Archives of Pediatrics and Adolescent Medicine, 157*(8), 733. doi:10.1001/archpedi.157.8.733
- El-Hazmi, M., & Warsy, A. (1997). Prevalence of obesity in the Saudi population. *Annals of Saudi Medicine, 17*(3), 302-306. Retrieved from <http://www.kfshrc.edu.sa/annals/Old/173/96-177.pdf>
- Friedman, K. E., Reichmann, S. K., Costanzo, P. R., Zelli, A., Ashmore, J. A., & Musante, G. J. (2012). Weight stigmatization and ideological beliefs: Relation to psychological functioning in obese adults. *Obesity Research, 13*(5), 907-916. doi:10.1038/oby.2005.105
- Hayden-Wade, H. A., Stein, R. I., Ghaderi, A., Saelens, B. E., Zabinski, M. F., & Wilfley, D. E. (2012). Prevalence, characteristics, and correlates of teasing experiences among overweight children vs. non overweight peers. *Obesity Research, 13*(8), 1381-1392. doi: 10.1038/oby.2005.16
- Hill, A., & Williams, J. (1998). Psychological health in a non-clinical sample of obese women. *International Journal of Obesity, 22*(6), 578-583. doi:35400007657522.0140
- Horley, K., Williams, L. M., Gonsalvez, C., & Gordon, E. (2004). Face to face: Visual scanpath evidence for abnormal processing of facial expressions in social phobia. *Psychiatry Research, 127*(1-2), 43-53. doi:10.1016/j.psych.res.2004.02.016
- Jaleel, R. (2009). Impact of maternal obesity on pregnancy outcome. *Journal of Surgery Pakistan (International), 14*, 1.

- Jawad, F. (2005). The obesity epidemic: A challenge of this century. *Journal of Pakistan Medical Association*, 55(3), 94. Retrieved from <http://jpma.pakcyber.biz/PdfDownload/616.pdf>
- Khan, A. N., Khalid, S., Khan, H. I., & Jabeen, M. (2011). Impact of today's media on university student's body image in Pskiatan: A conservative, developing country's perspective. *BioMed Central Public Health*, 11(379). doi:10.1186/1471-2458-11-379
- Khan, Afridi, A., & Khan, A. (2004). Prevalence and etiology of obesity: An overview. *Pakistan Journal of Nutrition*, 3(1), 14-25. Retrieved from <http://docsdrive.com/pdfs/ansinet/pjn/2004/14-25.pdf>
- Koydemir, S., & Demir, A. (2007). Psychometric properties of the brief version of the fear of negative evaluation scale in Turkish sample 1. *Psychological Reports*, 100(3), 883-893. doi: 10.2466/pr0.100.3.883-893
- Latif, A., Khan, S., & Farooq, W. (2011). Impact of media on development of eating disorders in young females of Pakistan. *International Journal of Psychological Studies*, 3(1), 122. doi:10.5539/ijps.v3n1p122
- Leung, T., Leung, T., Sahota, D., Chan, O., Chan, L., Fung, T., & Lau, T. (2008). Trends in maternal obesity and associated risks of adverse pregnancy outcomes in a population of Chinese women. *BJOG: An International Journal of Obstetrics and Gynaecology*, 115(12), 1529-1537. doi:10.1111/j.1471-0528.2008.01931.x
- Levinson, C. A., & Rodebaugh, T. L. (2012). Social anxiety and eating disorder comorbidity: The role of negative social evaluation fears. *Eating Behaviors*, 13(1), 27-35. doi: 10.1016/j.eatbeh.2011.11.006
- Mahmud, N., & Crittenden, N. (2007). A comparative study of body image of Australian and Pakistani young females. *British Journal of Psychology*, 98, 187-197. doi:10.1348/000712606X112446
- Mansell, W., & Clark, D. M. (1999). How do I appear to others? Social anxiety and processing of the observable self. *Behaviour Research and Therapy*, 37(5), 419-434. doi:10.1016/S0005-7967(98)00148-X
- Miller, N. E. (1948). Studies of fear as an equitable drive: Fear as motivation and fear-reduction as a reinforcement in the learning of new responses. *Journal of Experimental Psychology*, 38(1), 89-101.
- Mokdad, A. H., Ford, E. S., Bowman, B. A., Dietz, W. H., Vinicor, F., Bales, V. S., & Marks, J. S. (2003). Prevalence of obesity, diabetes, and obesity-related health risk factors, 2001. *Journal of the American Medical Association*, 289(1), 76-79. doi:10.1001/jama.289.1.76
- Moscovitch, D. A. (2009). What is the core fear in social phobia? A new model to facilitate individualized case conceptualization and treatment. *Cognitive and Behavioral Practice*, 16(2), 123-134. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1077722908001399>
- Myers, A., & Rosen, J. C. (1999). Obesity stigmatization and coping: Relation to mental health symptoms, body image, and self-esteem. *International Journal of Obesity and Related Metabolic Disorders*:

- Journal of the International Association for the Study of Obesity*, 23(3), 221. doi:10.1038/sj.ijo.0800765
- Najam, N., & Ashfaq, H. (2012). Gender differences in physical fitness, body shape satisfaction, and body figure preferences. *Pakistan Journal of Psychological Research*, 27(2), 187-200.
- Nanan, D. (2002). The obesity pandemic-implications for Pakistan. *Journal of Pakistan Medical Association*, 52(342). Retrieved from <http://jpma.pakcyber.biz/PdfDownload/2356.pdf>
- Nunnally, J. C., & Bernstein, I. H. 1994. *Psychometric Theory*. McGraw, New York. doi: 10.1016/S0261-5177(02)00006-7
- O'Brien, K. S. et al. (2016). The relationship between weight stigma and eating behavior is explained by weight bias internalization and psychological distress. *Appetite*, 102(1), 70-76. Retrieved <http://dx.doi.org/10.1016/j.appet.2016.02.032>
- Pappas, G., Akhtar, T., Gergen, P. J., Hadden, W. C., & Khan, A. Q. (2001). Health status of the Pakistani population: A health profile and comparison with the United States. *American Journal of Public Health*, 91(1), 93. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1446517/>
- Penuel, W. R., & Wertsch, J. V. (2010). Vygotsky and identity formation: A sociocultural approach. *Journal of Educational Psychology*, 30(2), 83-92. Retrieved http://dx.doi.org/10.1207/s15326985ep3002_5
- Puhl, R. M., & Luedicke, J. (2012). Weight-based victimization among adolescents in the school setting: Emotional reactions and coping behaviors. *Journal of Youth and Adolescence*, 41(1), 27-40. Retrieved from <http://link.springer.com/article/10.1007/s10964-011-9713-z>
- Puhl, R., & Brownell, K. D. (2001). Obesity, bias, and discrimination. *Obesity Research*, 9(12), 788-805. doi:10.1038/oby.2001.108
- Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behaviour Research and Therapy*, 35(8), 741-756. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0005796797000223>
- Roberts, T. (2015). Objectification theory model of eating disorders. *Encyclopedia of Feeding and Eating Disorders*, 1-3. doi:10.1007/978-981-287-087-2_34-1
- Rodebaugh, T. L., Woods, C. M., Thissen, D. M., Heimberg, R. G., Chambless D. L., & Rapee, R. M. (2004). More information from fewer questions: The factor structure and item properties of the original and brief fear of negative evaluation scale. *Psychological assessment*, 16(2), 169. doi:10.1037/1040-3590.16.2.169
- Rollero, C., & Piccoli, N. D. (2015). Gender as moderator between self-objectification and perceived health: An exploratory study. *Psihologia Sociala*, 35, 101-108.
- Sachs-Ericsson, N., Verona, E., Joiner, T., & Preacher, K. J. (2006). Parental verbal abuse and the mediating role of Self-criticism in adult internalizing

- disorders. *Journal of Affective Disorders*, 93, 71-78. Retrieved from <http://hdl.handle.net/1808/1485>
- Sajjad, Sameer, & Khalid. (2006). Effects of locus of control and media internalization on body image perception among adolescents girls. *Abstracts, Behavioral Sciences*. Fatima Jinnah Women University.
- Schwartz, M. B., & Brownell, K. D. (2007). Actions necessary to prevent childhood obesity: Creating the climate for change. *The Journal of Law, Medicine & Ethics*, 35(1), 78-89. doi:10.1111/j.1748-720X.2007.00114.x
- Stake, J., & Lauer, M. L. (1987). The consequences of being overweight: A controlled study of gender differences. *Sex Roles*, 17(1), 31-47. doi:10.1007/BF00287898
- Starrs, C. J., Dunkley, D. M. & Moroz, M. (2015). Self-criticism and low self-esteem. *Encyclopedia of Feeding and Eating Disorders*, 1-6, doi:10.1007/978-981-287-087-2_18-1
- Strauss, R. S., & Pollack, H. A. (2003). Social marginalization of overweight children. *Archives of Pediatrics and Adolescent Medicine*, 157(8), 746. doi:10.1001/archpedi.157.8.746.
- Sutton, D. H. (2016, July). The Impact of Psychological Distress, Quality of Life and Clinical Outcomes in Obese Adults. In Sigma Theta Tau International's 27th International Nursing Research Congress. STTI.
- Thompson, R., & Zuroff, D. C. (2004). The Levels of Self-criticism Scale: Comparative self-criticism and internalized self-criticism. *Personality and Individual Differences*, 36(2), 419-430. doi:10.1016/S0191-8869(03)00106-5
- Triandis, H. C., & Suh, E. M. (2002). Cultural influences on personality. *Annual Review of Psychology*, 53(1), 133-160. doi: 10.1146/annurev.psych.53.100901.135200
- United Nations. (2014). *Asia-Pacific Trade and Investment Report 2014. Recent Trends and Developments*. ISSN 2221-500X
- Vander Wal, J. S., & Thelen, M. H. (2000). Eating and body image concerns among obese and average-weight children. *Addictive Behaviors*, 25(5), 775-778. doi:10.1016/S0306-4603(00)00061-7
- Vander Wal, J. S., & Thomas, N. (2004). Predictors of body image dissatisfaction and disturbed eating attitudes and behaviors in African American and Hispanic girls. *Eating Behaviors*, 5(4), 291-301. Retrieved from <http://www.sciencedirect.com/science/article/pii/S147101530400039X>
- Vanea, M., & Ghizdareanu, E. (2012). High standards and self-criticism in university environment—gender, age and learning context differences. *Procedia-Social and Behavioral Sciences*, 33, 895-899. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1877042812002595>
- Weeks, J. W., Norton, P. J., & Heimberg, R. G. (2009). Exploring the latent structure of two cognitive components of social anxiety: Taxometric

- analyses of fears of negative and positive evaluation. *Depression and anxiety*, 26(2), E40-E48.
- World Health Organization. (WHO, 2000). The world health report: Health systems: Improving performance.
- Wong, Q. J. (2016). Anticipatory processing and post-event processing in social anxiety disorder: An update on the literature. *Australian Psychologist*, 51(2), 105-113. doi:10.1111/ap.12189
- World Health Organization. (WHO, 1998). The World Health Report 1998: Life in the 21st century, a vision for all. World Health Organization. Retrieved from <http://www.who.int/whr/1998/en/>
- World Health Organization. (WHO, 2012). World health statistics 2012. World Health Organization. Retrieved from http://apps.who.int/iris/bitstream/10665/44844/1/9789241564441_eng.pdf
- Wright, J., O'Flynn, G., & Macdonald, D. (2006). Being fit and looking healthy: Young women's and men's constructions of health and fitness. *Sex Roles*, 54(9), 707-716. doi:10.1007/s11199-006-9036-9

Received May 16, 2014

Revision received July 20, 2016