

SELF – ESTEEM AND PERFECTIONISM AS PREDICTORS OF EATING DISORDERS AMONG UNIVERSITY STUDENTS

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Abstract: This study examined the predictive effect of self – esteem and perfectionism on eating disorders among university students. A total of 327 respondents (15.4% male and 84.6% female) participated in this research, recruited using simple random sampling method. Self – esteem was measured using Rosenberg Self-Esteem Scale, perfectionism was measured using Multidimensional Perfectionism Scale and eating disorder was measured using Eating Attitudes Test. There was a significant gender difference in eating disorders, $t(376) = -2.909, p < .01$, where female students are reported to have significantly higher eating disorder ($M = 15.32, SD = 9.78$) than male students ($M = 11.431, SD = 6.52$). Confirming previous Western studies, regression analysis showed that both self – esteem and perfectionism predict eating disorder, in that, lower self-esteem and higher perfectionism increased the risk of eating disorders among university students. Preventive actions should focus on self-esteem and perfectionism as protective factors for eating disorders among people in this particular group.

Keywords: Self – esteem, perfectionism, eating disorders, university students

Introduction

Recent statistics (Galmiche *et al.*, 2019) suggest the increasing trends of individuals suffering to eating disorders, by which the prevalence increased from 3.5% for the 2000–2006 period to 7.8% for the 2013–2018. The essential features of eating disorders include disturbance in body image, over- or under control of eating, and extreme behaviours to control weight or shape (Striegel-Moore & Bulik, 2007). Based on Diagnostic and Statistical Manual-5 classification, major types of eating disorders include bulimia nervosa, anorexia nervosa and binge eating disorders (American Psychological Association, 2013). Of the various mental disorders, eating disorders have the highest mortality rates (Smink *et al.*, 2012), in that one person died in 62 minutes due to eating disorders. For instance, those who suffered

from anorexia nervosa showed the highest mortality rate and it was estimated that 10% of them would die within 10 years (Sullivan, 2002). This may be due to the fact that eating disorders have been linked to various health problems such as kidney damage, liver and osteoporosis, heart diseases (Mitchell *et al.*, 1997) and could cause psychological dysfunctions such as the tendency to lose control, having low and negative self-esteem, and suicide (Sullivan, 2002).

It is evident that the study of eating disorders has been widely conducted among women, but in recent years, many studies have also focused on men. This is mainly due to the increase in the percentage of eating disorders among men (Gary, 2001; Vohs *et al.*, 1999; O’Dea & Abraham, 2000). With regard to age, eating disorders are common among adolescents and early

adolescents but may occur at a young age or late adulthood in some individuals (Spearing, 2001). In particular, evidence from a variety of sources indicates that symptoms of eating disorders are pervasive in college populations, highlighting the significance of addressing eating pathology within this particular population (Eisenberg *et al.*, 2011; Lipson, & Sonnevile, 2017).

Due to the increasing prevalence of eating disorder, understanding the etiology of eating disorders requires more research attention. While Striegel-Moore and Bulik (2007) showed that the major factors that cause eating disorders are sociological and biological factors, several researchers have also conducted studies on psychological risk factors of eating disorders to discover opportunities for intervention (Keel & Forney, 2013), particularly self-esteem. Self-esteem referred to as global self-worth, comprising of both positive and negative feelings about the self (Rosenberg, 1965) is one of psychological factors that has been suggested to account for susceptibility to eating disorder. Many studies particularly conducted among Western samples have identified low self-esteem as a general risk for eating disorders (Mora *et al.*, 2017; Stavrou, 2018).

In addition, the link between personality factor specifically perfectionism and eating disorders have been investigated in several studies (Jacobi *et al.*, 2004; Lilenfeld *et al.*, 2000; Riviere, & Douilliez, 2017; Paulson, & Rutledge, 2014). According to Frost *et al.* (1990) perfectionism is a concept in personality defined as 'the setting of excessively high standards for performance accompanied by overly critical self-evaluation'. In general, clinical and empirical Western studies suggest that perfectionism has a role in eating disorders (Bardone-Cone *et al.*, 2007). Studies (Lilenfeld *et al.* 2000; Bulik *et al.*, 2003) for example, showed that individuals with bulimia have a higher level of perfectionism than others.

However, depending on the measures of both perfectionism and eating disorder scales used, the results of these studies seem to be mixed. For instance, Halmi *et al.* (2005) showed a high score of maladaptive perfectionism - concerns over errors, doubts about actions, parental expectations and parental criticism, in individuals with anorexia. Other studies, on the other hand, found that that not all individuals with high perfectionism score tend to suffer from eating disorders. Research conducted by Paulson and Rutledge (2014) for example, found that adaptive form of perfectionism led to a decrease in eating disorder whereas maladaptive form of perfectionism led to an increase in reported eating problem. In that study, adaptive perfectionism has been suggested as a protective factor while maladaptive perfectionism was considered as a risk factor for eating disorder.

In sum, as noted above, the psychological causes of eating disorders focusing on self-esteem and perfectionism have been extensive. However, such findings may represent western bias because eating disorders tend to be culturally specific, in that, historically, the disorders are overwhelmingly associated with Western cultures. However, the disorders are now commonplace all over the world (Galmiche *et al.*, 2019; Nivedita *et al.*, 2018). Given that this particular issue has not been widely studied within non-Western sample, it is unclear on the universality of the western findings. This study examined the relationship between self-esteem, perfectionism and eating disorders among university students in Terengganu, representing a non-Western sample.

Materials and Methods

Participants

The participants consisted of students enrolled in the Faculty of Economics and Social Development at Universiti Malaysia

Terengganu (UMT) for the 2018/2019 Academic Year. The sampling frame was 2214, from First Year to Final Year students. The proposed sample size was 327 based on a sample size calculation (Krejcie & Morgan, 1970). Four hundred names were drawn using simple random sampling. 376 responses were collected and included for analysis, which were slightly higher than the recommended value. Participants consisted of female students (84.6%) and male students (15.4%). The participants ranged in age between 19 to 30 years.

Self esteem

Self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES) questionnaire developed by Rosenberg (1965). This questionnaire contains 10 items. The questionnaire used was translated into Malay by Mohd Jamil (2006). The translated version was found to have good psychometric properties, indicating that the RSES was a valid and reliable measure of self-esteem in the Malaysian context. In the current study, the Cronbach's α of the RSES was .85.

Perfectionism

The Multidimensional Perfectionism Scale (MPS) developed by Frost *et al.* (1990) was used to assess levels of multidimensional perfectionism. This scale contains 35 items. Acceptable reliability has been reported for this scale in past research using Malaysian samples (Basirion *et al.*, 2014). In this study, Cronbach's alpha of 0.81 was obtained.

Eating Disorders

The Eating Attitudes Test (EAT-26) developed by Garner *et al.*, (1982) was used in this study to assess eating disorders. It has been widely used in studies (Forney & Ward, 2013; Bell *et al.*, 2016; Anderson *et al.*, 2016) to measure eating disorders.

This scale has 26 items and contains three sub-scales that is diet, bulimia and eating habits, oral control as well as overall eating disorder scores. The EAT-26 scale has been validated in a previous Malaysian study (Kuan *et al.*, 2011) thus confirming the internal reliability of the questionnaires, and as a valid screening tool for symptoms of disordered eating. In the current study, the Cronbach alpha was .77.

Procedure

Participants were put in groups and questionnaires were distributed and later collected. They were given 15 minutes to 20 minutes to complete the questionnaire. Questionnaires were given to all 376 participants by distributing them in the classroom. Participants were informed that their participation was voluntary.

Data analysis

Data obtained through the questionnaire were analyzed using the 'Statistical Package for Social Science (SPSS)' version 25.0. Pearson correlations were used to examine the relationships between self-esteem, perfectionism and eating disorders among students. Regression analysis was used to examine the predictive effect of self-esteem and perfectionism on eating disorders, controlling for gender.

Results

Table 1 reports the intercorrelation of the variables measured in this study, relationship between self-esteem and perfectionism with eating disorders. The results showed a significant relationship between self-esteem and eating disorders $r = -.15, p < .001$. This indicates that lower self-esteem is related to increased risk of eating disorders. For the relationship between perfectionism and eating disorders, the results obtained were $r = .23, p < .001$.

Table 1: Inter-correlation between variables

	1	2	3
1. Self-esteem	-		
2. Perfectionism	-.20	-	
3. Eating disorders	-.15**	.23**	-

Note *p <.05, p<.01

Regression analysis was performed to determine the effect of self-esteem and perfectionism in the prediction of eating disorders (Table 2). Gender was entered in the first step as control variable. At this step, gender accounted for a significant variance in eating disorders, with $F(1,374) = 8.46, p <.01$, indicating a significant gender difference in the level of eating disorders $t(376) = -2.91, p <.05$. Female students reported significantly higher eating disorders ($M = 15.32, SD = 9.78$) than male students ($M = 11.43, SD = 6.52$). The addition of self-esteem and perfectionism accounted for an additional significant 6% of the variance $F(2,372) = 13.24, p <.001$. While both self-esteem and perfectionism emerged as significant predictors, the latter had stronger effect on eating disorders ($\beta = -.10, p <.01; \beta = .21, p <.001$, respectively).

Table 2: Regression analysis of eating disorders on gender, self-esteem and perfectionism

	Step 1 β	Step 2 β
Gender	.14**	.14**
Self-esteem		-.10*
Perfectionism		.21**
$R^2\Delta$.02	.06
F change	8.46*	13.24***

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

Discussion

In the literature, gender differences in eating disorders have been repeatedly outlined. At trend level, this is replicated in the present study, showing that female students had significantly higher eating disorders than

male students. A recent study (Galmiche *et al.*, 2019), provides an exhaustive view of the studies confirming that eating disorders are highly prevalent especially in women, with the weighted means (ranges) of lifetime disorders were 8.4% (3.3–18.6%) for women and 2.2% (0.8–6.5%) for men. This study is also supported by Paulson and Rutledge (2014) who stated that 15.3% of women significantly achieved the highest score in the EAT - 26 compared to 2.7% of men.

The results of this study found self-esteem as a significant predictor of eating disorders among university students, confirming the previous Western findings. Prior studies (Jessica & Jaya, 2017; Mora *et al.*, 2017) found a negative relationship between self-esteem and eating disorders. Further, Brechan and Kvaalem (2015), also stated in their study that self-esteem and eating disorders have a significant negative relationship especially among women. Similarly, Herbozo *et al.* (2015) found that individuals with binge eating problem tend to have low self-esteem. Such findings could be explained by the fact that self-esteem can be considered as a major determinant of one’s body image, in that, a decrease in self-esteem contributes to poorer body image and thus increases the likelihood of disordered eating (Stavrou, 2018). Secondly, it has been suggested that low esteem individuals become less social with the environment. This enhances an individual’s tendency to diet and purge (Fairburn & Wilson, 1993; Vohs *et al.*, 1999).

In this study, the results indicated perfectionism exhibited stronger effect in eating disorders as compared to self-esteem, indicating the fact that being perfectionist may increase the risk of having eating disorders symptoms. This could be explained by a study by Hopkinson and Lock (2004) who found that putting higher standards lead to increased risk for

eating disorders. The study conducted by Luo *et al.* (2013) also noted that measures of perfectionism such as concern for guilt, parental criticism, and doubt about actions were positively associated with binge eating. Other works suggested the mechanisms of how perfectionism contribute to the development of eating disorders. For instance, Keel and Forney (2013) who found that perfectionism may increase disordered eating via increasing susceptibility to internalise the thin ideal or by influencing selection of peer environment. Another study conducted by Steele *et al.* (2007) found that self-esteem is a mediator of the relationship between perfectionism and eating disorders.

These results must be considered in the context of a number of limitations. First, with regard to gender, there is unequal sample size. Hence, bias may have little influence on estimations of relative difference between groups. Secondly, the data was collected from students from one of the faculties in UMT. Hence, the results may not be generalisable to the larger population because it may not be adequately represented in the random sample.

Conclusion

In this study, female students are at higher risk for eating disorders. Second, the findings of the study replicated the Western findings showing that having low self-esteem and high perfectionism increase the vulnerability of eating disorders among university students. Hence preventive actions should focus on self-esteem and perfectionism as protective factors for eating disorders to this particular group.

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