

# The Role of Body Image Dissatisfaction, Depression and Body Mass Index in Eating Disorders Among Married and Unmarried Women in Malaysia

Sangheetha A/P Ravi Chandran & Hilwa Abdullah @ Mohd. Nor\*

Center for Research in Psychology and Human Well-being, Faculty of Social Sciences and Humanities,  
Universiti Kebangsaan Malaysia

\*Corresponding Author

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## ABSTRACT

Eating disorder is among the most dangerous disorders and can cause many complications and if left untreated can lead to death. The purpose of this study is to identify differences in body image dissatisfaction, depression, body mass index (BMI) and eating disorders based on female marital status in Malaysia and examine the relationship between body image dissatisfaction and eating disorders among women in Malaysia. The Multidimensional Body Self Relations Questionnaire- Appearance Scale (MBSRQ-AS) was used to measure body image dissatisfaction, the Beck Depression Inventory (BDI) was used to measure depression and The Eating Attitude Test (EAT) was used to measure risk of eating disorders. The respondents were from different demographic backgrounds in Malaysia (N=385). Overall, body image dissatisfaction has a significant and strong impact on dietary discomfort among women in Malaysia. Married women have high levels of dissatisfaction with body image and depression and are more at risk for eating disorders than unmarried women. The findings of this study can help women in Malaysia to identify their eating disorders and the risk factors.

**Keywords:** body image dissatisfaction, depression, body mass index, eating disorder

## INTRODUCTION

**Eating disorders** are behavioral conditions characterized by persistent disturbance in eating behaviors. This eating disorder involves insufficient food intake with the body's needs and is followed by negative behaviors such as vomiting, excessive exercise and intake of laxatives to reduce body fat. Eating disorders are divided into three main types, namely anorexia nervosa, bulimia nervosa and binge eating.

Anorexia nervosa (definition DSM-5) originates from a combination of the Greek (Anerektos) and Latin (Nervosa) words meaning no appetite for food and disorders due to severe psychological and physical effects. Meanwhile, bulimia nervosa is characterized by repeated episodes of binge eating (Azlinda Razak, 2013). Binge eating disorder is characterized by recurrent episodes of eating large quantities of food due to loss of control over appetite. A study involving subjects from Malaysia revealed that body size dissatisfaction contributes to higher body mass index (BMI)-for-age among young adolescents in Malaysia (Nur Nabilla A.R., 2019). Individuals who suffer from eating disorders may have perceptual disturbances of body image, depression and are at risk for a high body mass index level.

More women than men are reported to have body image dissatisfaction, or an inability to accept one's body image. Preliminary studies suggest that dissatisfaction with one's body can trigger eating disorders and this disorder is a major contributor to death compared to other mental disorders. A study from Malaysia by Mohd Taib et al. (2011) found that women had a higher risk of eating disorders than male students. Individuals who are dissatisfied with their body image are prone to depression because there is a significant relationship between body image dissatisfaction and depression. Friedman MA et al. (2000) also suggests that body image dissatisfaction and depression are associated with eating disorders.

Depression is a medical illness that negatively affects the way a person feels, thinks and acts. Depression causes

feelings of sadness and/or a loss of interest in activities that once a person has enjoyed. According to the World Health Organization (2012), depression is one of the comorbid diseases in eating disorders, resulting in 1 million deaths each year. The relationship between depression and eating disorders is interrelated. Past studies have identified personal, psychological and social factors as contributing factors to eating disorders. Predictions and related factors are gender i.e. women, depression, low self-esteem, body image dissatisfaction and extreme diet. Although, there are many factors that predict eating disorders, depression and body image are closely linked to eating disorders.

Dietary Restraint Theory, is defined as the intention to limit food for retention or weight loss and is commonly referred to as the basic mechanism in eating disorders. Individuals who have dissatisfaction with body image and desire to change weight / shape start a diet based on dietary restraint theory. Part of this limitation is to ignore one's internal stimuli, such as ignoring feelings of hunger. Thus, once individuals begin to eat following restrictions, they feel challenged to control internal stimuli that can lead to frustration and worsen self-esteem because the number of calories consumed at that time depends on the original desire to lose weight (Polivy & Herman, 1993).

Based on previous studies, the first objective of this study is to identify the differences between body image dissatisfaction, depression, body mass index (BMI) and eating disorders based on women's marital status in Malaysia and the second objective is to study the relationship between body image dissatisfaction and eating disorders among women in Malaysia. Two hypotheses were constructed to be associated with the objectives of the study. The first hypothesis predicts that there are significant differences between body image dissatisfaction, depression, body mass index (BMI) and eating style disorders in married and unmarried women in Malaysia. The second hypothesis states that there is a significant relationship between body image dissatisfaction and eating disorders among women in Malaysia.

## METHODOLOGY

This study uses a quantitative method, data collection through questionnaires that requires respondents to fill responses conventionally. The types of probability sampling used in this study were random sampling method. The study population for this research were Malaysian adult women aged 20 to 50 years. The study sample for this research was a representative of the designated population. Inclusion criteria's where respondents were between 20 to 50 years old, Malaysian residents and women. The study sample was set to only 385 women who are sufficiently representative of the adult female population in Malaysia.

To determine the sample size, researchers have obtained adult female population statistics from the Department of Statistics Malaysia. Statistics show that the Malaysian adult female population for 2019 is 16,521,600 women. Researchers have used Raosoft, Inc.'s sample counting program. to calculate the study sample for this research. The marginal error was set at five percent and the confidence level was set at 95%. The sample size shown is a total of 385 respondents. This value is sufficient to represent the study population to be studied.

This study has used a questionnaire form distributed to respondents conventionally. The questionnaire used in this study consists of six sections. Each section has its own items and measures specific variables. Part A was related to the demographics of the respondents. Section B and Section C measure the level of independent variables used in this study. Part B measures the level of body image dissatisfaction, Part C measures the level of depression and part D was the part that measures the dependent variable for this study which were to measure the level of eating style disorder.

Part A of the survey questionnaire form aims to obtain the demographics of the respondents. Among the information to be filled in by the respondent is the respondent's age, ethnicity (Malay, Chinese, Indian or Other), marital status (Single, Married or Widow) and lastly is the status of employment respondents from (Not working and Working).

Section B was the section that identifies the level of body image dissatisfaction found in the respondents. The questionnaire used was the Multidimensional Body Image Self Relations Questionnaire-Appearance Scales (MBSRQ-AS) developed by Thomas F.C (2000). The inventory includes 34 items and 5 dimensions that have been translated in Bahasa Melayu. The minimum score for this questionnaire is 34 and the maximum score is

170. The ranking method used for this questionnaire is Likert Scale 1 to 5; (1) Never, (2) Once in a while, (3) Sometimes, (4) Often and (5) Very often. The Cronbach's alpha value for this test instrument was ( $\alpha = .92$ ).

The questionnaire used to measure the level of depression was a questionnaire developed by Aaron T. Beck in 1961. This Beck's Depression Inventory (BDI) was translated into Bahasa Malaysia. The questionnaire included 20 items. The minimum score is 20 and the maximum score is 100. The scoring method for this questionnaire is to use a Likert scale 0 to 3. (0) Never, (1) Occasionally, (2) Almost always, (3) Always. The Cronbach's alpha value for this test instrument is ( $\alpha = .95$ )

Part D includes the Eating Attitude Test Questionnaire developed by David Garner in 1982. The questionnaire is translated into Bahasa Malaysia. The questionnaire included 26 items. There are 3 subscales in this questionnaire namely diet scale items, bulimia and food preoccupation and verbal control. The items are scored on a 6-point Likert scale, with higher scores indicating more severe disordered eating attitudes and behaviors. The Cronbach's alpha value for this test instrument is ( $\alpha = .91$ )

### Data Analysis

This study uses independent t-test analysis to find out the differences in body image dissatisfaction, depression, body mass index (BMI) and eating style disorders based on women's marital status in Malaysia. The hypothesis was that there was a significant difference between body image dissatisfaction, depression, body mass index (BMI) and eating style disorders in married and unmarried women in Malaysia. Tables 1 to 5 illustrate the differences between the five-dimensional mean scores found in body image dissatisfaction in married and unmarried women.

High scores on the appearance orientation dimension felt very positive and satisfied with their appearance; low scores feel very negative and dissatisfied with their appearance.

**Table 1 Differences between married women and not married in the appearance orientation dimension**

	Married Women		Unmarried Women		t(df)	p-value
	Mean	SD	Mean	SD		
Appearance Orientation	31.13	4.41	39.20	4.41	15.54(334)	.000

High scores for the appearance assessment dimension were satisfied with their limbs and low scores were dissatisfied.

**Table 2 Differences between married women and unmarried in the appearance assessment dimension**

	Married Women		Unmarried Women		t(df)	p-value
	Mean	SD	Mean	SD		
Appearance Assessment	16.25	3.40	23.08	4.75	15.89(313)	.000

High scores on the overweight classification dimension place importance on their appearance, engage in caring behaviors and individuals who get low scores care less about their appearance, consider their appearance less important, and do not strive to "look good".

**Table 3 Differences between married women and not married in the overweight classification dimension**

	Married Women		Unmarried Women		t(df)	p-value
	Mean	SD	Mean	SD		
Overweight Classifications	11.13	2.69	15.52	3.86	12.67(307)	.000

High scores on the body satisfaction dimension reflect feelings of anxiety about weight, giving more importance to weight and adopting a restricted diet.

**Table 4 Differences between married women and not married in the dimension of body satisfaction**

	Married Women		Unmarried Women		t(df)	p-value
	Mean	SD	Mean	SD		
Body Satisfaction	20.59	4.59	30.69	6.89	16.64(298)	.000

Individuals who scored high on their own weight classification dimension labeled their weight as overweight.

**Table 5 Differences between married women and not married in the dimensions of their own weight classification**

	Married Women		Unmarried Women		t(df)	p-value
	Mean	SD	Mean	SD		
Own Weight Classification	3.76	1.88	7.76	2.19	20.14(314)	.000

Based on the analysis of the mean score of depression found that there is a significant difference between marital status ( $t(df\ 294) = -8.94, p < 0.05$ ) where the mean score of depression among married women ( $m = 32.92, sd = 8.67$ ) is higher than single women ( $m = 22.46, sd = 13.29$ ).

**Table 6 Differences between married women and not married in the BDI score**

	Married Women		Unmarried Women		t(df)	p-value
	Mean	SD	Mean	SD		
BDI	32.92	8.67	22.46	13.29	-8.94(294)	.000

Based on the analysis of BMI levels found that there is a significant difference between marital status ( $t(df\ 351) = -11.18, p < 0.05$ ) where the mean level of BMI among married women ( $m = 3.43, sd = 0.71$ ) is higher than single women ( $m = 2.54, sd = 0.82$ ).

**Table 7 Differences between married women and not married in BMI**

	Married Women		Unmarried Women		t(df)	p-value
	Mean	SD	Mean	SD		
BMI	3.43	0.71	2.54	0.82	-11.18(351)	.000

Based on the analysis of the mean score of eating disorder found that there is a significant difference between marital status ( $t(df\ 380) = -21.16, p < 0.05$ ) where the mean score of eating style disorder among married women ( $m = 37.46, sd = 10.28$ ) is higher compared to single women ( $m = 15.10, sd = 10.31$ ).

**Table 8 Differences between married women and unmarried in the EAT-26 score**

	Married Women		Unmarried Women		t(df)	p-value
	Mean	SD	Mean	SD		
EAT-26	37.46	10.28	15.10	10.31	-21.16(380)	.000

To answer the second objective, researchers have used Pearson correlation to study the relationship between the variables studied in the study. Researchers have developed hypotheses to identify the existence of significant relationships between the variables studied. The following is a hypothesis built to answer the second objective, which is to identify the relationship between body image dissatisfaction and eating disorders among women in Malaysia. The hypothesis of this study is that there is a significant relationship between body image dissatisfaction with eating disorders among women in Malaysia.

The value of Pearson coefficient for the variable of body image dissatisfaction with eating style disorder in women in Malaysia shows a value ( $r = -.79^{**}$ ), a strong negative relationship and this value is very significant at the level ( $p < .05$ ). Individuals involved with eating style disorders have low levels of body image satisfaction.

**Table 9 Eating disorders and body image dissatisfaction correlation table**

Correlations			
		Total EAT	Mean MBRSQAS
TotalEAT	Pearson Correlation	1	-.790 <sup>**</sup>
	Sig. (2-tailed)		.000
	N	385	385
MeanMBRSQAS	Pearson Correlation	-.790 <sup>**</sup>	1
	Sig. (2-tailed)	.000	
	N	385	385
**. Correlation is significant at the 0.01 level (2-tailed).			

## RESULTS & DISCUSSIONS

Pearson coefficient results show that there is a relationship between body image dissatisfaction and eating disorder. Thus, there is a relationship between body image and abnormal nutrition as expressed by Gui Chen, Jinbo He, Bin Zhang & Xitao Fan (2020). The study found that there is a relationship between body image dissatisfaction and eating disorders among adult women in Malaysia. This study is in line with studies by Juliet K. Rosewall, David H. Gleaves & Janet D. Latner. (2019) where psychopathological factors influenced the relationship between body size, eating disorders and body image dissatisfaction among women at the University of New Zealand. The results of the study found that women with dissatisfaction with body image were involved with eating style disorders where body image was the strongest predictor of eating disorders. The study of Zeinab Nikniaz et al. (2016) found a prevalence rate of high body image dissatisfaction among Iranian women who perform high daily activities such as working women or married women who have excessive responsibilities.

Furthermore, body image dissatisfaction is believed to have a direct effect on nutritional disorders such as restricted nutritional intake or bulimic eating disorders (Shroff & Thompson, 2006). This phenomenon is more easily explained through Dietary Restraint Theory which is defined as the intention to limit food for retention or weight loss and is commonly referred to as the basic mechanism in eating disorders. Weight loss or weight retention is a factor that motivates individuals who have dissatisfaction with body image and desire to change weight / shape to start a diet. Part of this limitation is to ignore one's internal stimuli, such as ignoring feelings of hunger. For an example, once individuals start eating following restrictions, they may feel challenged to control internal stimuli that can lead to frustration and worsen self -esteem because the number of calories consumed at that time depends on the original desire to lose weight.

This study found that there were significant differences in body image dissatisfaction, depression, body mass index (BMI) and eating style disorders based on marital status among women in Malaysia. The findings of this study are supported by several previous studies. There is a strong association between marital status with body image dissatisfaction, depression, BMI and eating style disorders because the lifestyles of single and married



women are different. Based on this study, married women are at high risk for eating style disorders. This can be seen in the context of the responsibilities borne by a married woman, where they are in charge of the household and are more preoccupied with daily activities so that there is no time for themselves.

Most married women rarely get time to take care of themselves, so they feel dissatisfied with their lives and also feel alone despite having a life partner. These findings are also supported by Rachel Stokes, MA & Christina Frederick-Recascino, PhD (2003) in their study that examined the relationship between body image and happiness in college, middle-aged and older women aged 18-87 years. The results of the study found that middle-aged women and older women were more likely to experience body image dissatisfaction and less happiness. This is discussed through the changes that occur in the body as well as the role of other factors such as marital status, socioeconomic status factors and psychological changes that occur in middle-aged women and older women.

Michele Pole, Janis H. Crowther<sup>1</sup> & John Schell (2004) studied the contribution of marital status factors to body image dissatisfaction among married women who are in middle adulthood also found the results of a similar study where women's perceptions of body image are based on feedback given by the husband and the husband's assessment became a significant predictor in predicting body image dissatisfaction. Poor communication patterns between married couples affect the assessment of body image dissatisfaction. Marital status plays an important role in body image dissatisfaction. Women from problematic family backgrounds such as lack of communication between married couples and also have dissatisfaction with body image.

Married women are at high risk for engaging in abnormal eating behaviors because the roles and responsibilities perceived by some women produce negative moods or stress. Based on Emotional and Affect Regulation Theory, when individuals are in a negative mood, facing negative stress and unable to manage emotions or calm themselves, they are at risk for adopting abnormal eating styles such as Binge Eating Disorder (BED). This is to make them "feel better" immediately from such abnormal eating and also act as a temporary relief from negative emotions or thoughts, then the individual will adopt abnormal eating behaviors and the BED cycle is maintained

Stress, negative emotions and feelings, or negative thoughts can contribute to "unstable emotions" in which individuals use abnormal eating habits to avoid these feelings (Waller, 2000, p. 349). Researchers have found unsustainable emotional states, such as depression, sadness, anger at others or oneself, loneliness, dissatisfaction, embarrassment, boredom, fatigue, and anxiety contribute to eating disorders. Masheb & Grilo (2006) found that anxiety is an emotion that is highly related to abnormal eating. In addition to negative emotions, negative beliefs about oneself, such as, 'I'm obese,' or 'I'm a bad or unworthy person,' are contributors to negative emotions.

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