

THE INFLUENCE OF BODY IMAGE SATISFACTION,  
BODY MASS INDEX (BMI), PERSONALITY TRAITS,  
AND MATERNAL PARENTING STYLES ON PARTIAL  
EATING DISORDER

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UMS

THESIS SUBMITTED IN FULFILLMENT FOR THE  
DEGREE OF MASTER OF PSYCHOLOGY

SCHOOL OF PSYCHOLOGY AND SOCIAL WORK  
UNIVERSITY MALAYSIA SABAH

2013

# UNIVERSITY MALAYSIA SABAH

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## DECLARATION

I hereby declare that the material in this thesis is my own except for quotations, excerpts, equations, summaries and references, which have been duly acknowledged.

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## ACKNOWLEDGEMENT

First of all, I wish to present my appreciation and acknowledgement to my supervisors, Dr. Rejani TG and Associate Professor Dr. Murnizam Hj Halik who had been advised, supervised and inspired me throughout the past two years. The encouragement they had given provides me spirits to complete the research and publish this thesis.

Secondly, I would like to deliver the appreciation to my family, especially my parents who had supported and assisted me whenever I need help. Appreciation had also delivered to lecturers in School of Psychology and Social Work, University Malaysia Sabah as well, who were willing to share their expertise and encouragement.

Next, appreciation would like to express to Malaysia Education Ministry and Sabah Education Department, and also teachers, parents, and students from S.J.K. (C) St. James Likas, S.R.K. St. Agnes Likas, S.R.K. Lok Yuk Likas, S.J.K. (C) Chung Hwa Kota Kinabalu, S.M. Shan Tao Likas, S.M.K. Sanzac Kota Kinabalu, S.M.K. Maktab Sabah, S.M.K. Lok Yuk Likas, and S.M.K. Perempuan Likas which had allowed me to do data collection and gave a fully co-operation and effort throughout the research.

Finally, appreciation would like to deliver to my fellow friends, who were spiritually supported me, helped me, and advised me. Hereby I want to say thank you to all of you.

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## ABSTRACT

### **THE INFLUENCE OF BODY IMAGE SATISFACTION, BODY MASS INDEX (BMI), PERSONALITY TRAITS, AND MATERNAL PARENTING STYLES ON PARTIAL EATING DISORDER**

The main purpose of this study was to examine the differences of body image satisfaction and body mass index among partial eating disorder group (PEDG) and non-partial eating disorder group (NPEDG). This study was also examined the effect of body image satisfaction and body mass index on partial eating disorder, and the moderating effect of personality traits and maternal parenting styles in the relationship between body image satisfaction and partial eating disorder, and in the relationship between body mass index and partial eating disorder. Screening was done on 410 students aged 11 to 15 years old around Kota Kinabalu, Sabah, and 184 students were chosen into PEDG and NPEDG (92 PEDG and 92 NPEDG). Eating Disorder Assessment Test (EDAT) was used for screening, while Children Eating Attitudes Test (ChEAT), Body Esteem Scale (BES), Revised Junior Eysenck Personality Questionnaire – Short form (JEPQR-S), and Parenting Style Questionnaire was used in this study. The result had showed that body image satisfaction and body mass index were significantly lower in PEDG. Body image satisfaction had greater impact on partial eating disorder. Besides, study had also found that extraversion, neuroticism, and psychoticism personality traits, and maternal authoritative, authoritarian, and permissive parenting styles were not significant moderators in the relationship between body image satisfaction and partial eating disorder, and in the relationship between body mass index and partial eating disorder. This study was contributed knowledge to doctors, clinical psychologists, school counsellors, future researchers, and parents.

## **ABSTRAK**

*Kajian ini bertujuan untuk mengkaji perbezaan kepuasan imej badan dan indeks jisim badan antara kumpulan kecelaruan makan separa (PEDG) dan kumpulan bukan kecelaruan makan separa (NPEDG). Kajian ini juga bertujuan untuk mengkaji kesan kepuasan imej badan dan indeks jisim badan ke atas kecelaruan makan separa, dan kesan moderator trait personaliti dan gaya keibubapaan ibu dalam hubungan antara kepuasan imej badan dan kecelaruan makan separa, dan hubungan antara indeks jisim badan dan kecelaruan makan separa. Saringan telah dijalankan terhadap 410 pelajar yang berumur 11 hingga 15 tahun di sekitar Kota Kinabalu, Sabah, dan 184 pelajar telah dipilih sebagai PEDG dan NPEDG (92 PEDG dan 92 NPEDG). Eating Disorder Assessment Test (EDAT) telah digunakan dalam saringan, dan Children Eating Attitudes Test (ChEAT), Body Esteem Scale (BES), Revised Junior Eysenck Personality Questionnaire – Short form (JEPQR-S), dan Parenting Style Questionnaire telah digunakan dalam kajian. Hasil kajian menunjukkan kepuasan imej badan dan indeks jisim badan adalah signifikan dan lebih rendah dalam PEDG. Kepuasan imej badan memberikan kesan yang lebih tinggi kepada kecelaruan makan separa. Selain itu, hasil kajian juga menunjukkan trait personaliti ekstraversi, neurotisma, dan psikotisma, dan juga gaya keibubapaan autoritarian, autoritatif, dan permisif ibu bukan moderator yang signifikan dalam hubungan antara kepuasan imej badan dan kecelaruan makan separa, dan juga hubungan antara indeks jisim badan dan kecelaruan makan separa. Kajian ini telah menyumbang ilmu pengetahuan kepada doktor, psikologi klinikal, kaunselor sekolah, bakal penyelidik, dan ibubapa.*

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## LIST OF ABBREVIATION

<b>DSM-IV</b>	Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition
<b>ICD-10</b>	International Classification of Disease
<b>PEDG</b>	Partial Eating Disorder Group
<b>NPEDG</b>	Non-Partial Eating Disorder Group
<b>BMI</b>	Body Mass Index
<b>BES</b>	Body Esteem Scale
<b>ChEAT</b>	Children Eating Attitude Test
<b>EDAT</b>	Eating Disorder Assessment Test
<b>S.R.K.</b>	Sekolah Rendah Kebangsaan
<b>S.J.K. (c)</b>	Sekolah Jenis Kebangsaan (Cina)
<b>S.M.K</b>	Sekolah Menengah Kebangsaan
<b>SPSS</b>	Statistical Package for Social Science



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## LIST OF SYMBOLS

$>$	Bigger than
$<$	Smaller than
$\geq$	Bigger or same as
$H_0$	Null hypothesis
$f$	Frequency
$\%$	Percentage
$n$	Number of participant
$\bar{x}$	mean
<b>s.d.</b>	Standard deviation
<b>df</b>	Degree of Freedom
<b>t</b>	t-value
<b>Sig</b>	Significance
$R^2$	R square
$\Delta R^2$	R square change
<b>Sig. <math>\Delta F</math></b>	Significant of R square change
$\beta$	Beta value
<b>p</b>	significant value
<b>*</b>	significant at level $p < .01$
<b>**</b>	Significant at level $p < .05$



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## CHAPTER I

### INTRODUCTION

#### 1.1 Background

Eating disorder is one of the syndromes classified in Diagnostic and Statistical Manual of Mental Disorders (DSM) and International Classification of Diseases (ICD). This disorder may onset in different stages of life, which included adult, adolescent, and even during childhood. Generally, the common symptoms of patients with eating disorder faced were restricting eating or binge eating. Even though studies has proven that female have higher prevalence of eating disorders, but research also found that male showing a smaller but steady number symptoms of eating disorder (Eaugh-Bryant & Lask, 2007). Besides, the percentage of eating disorder is getting higher in recent years.

Eating disorders are developing in worldwide, and this may lead to mortality. The disorders are not only developing in Western countries, but also occurred in Asia countries such as Japan, Republic of Korea, Hong Kong, Singapore, as well as Malaysia. Previous studies have found that there were 10% to 22.3% of the adolescents in Malaysia are high risk in eating disorder (Ng, 2007, Soo, 2008, & Foo, 2011). There were few researchers of eating disorder have been studied in Malaysia revealed that there are increasing of awareness among Malaysians in the issues of eating disorders.

##### 1.1.1 Eating Disorder

Eating disorder is defined as severe disorganized of eating behaviours. It can be characterised into two major specific categories, which are Anorexia Nervosa and Bulimia Nervosa. Anorexia Nervosa is defined as a person who refused to eat, and refused to maintain a minimal body weight even though he/she is underweight. People who are suffering from Anorexia Nervosa have a severe disturbance in the perception of their body shape and body image. On the other hand, Bulimia Nervosa is defined as out of control eating episodes, or binge eating and following

by inappropriate compensatory behaviours such as self-induced vomiting, misuse of laxatives, diuretics or other medications, fasting, or excessive exercise (DSM-IV, 2000).

There are two guidelines can be used to diagnosed eating disorders, which is Diagnostic and Statistical Manual of Mental Disorders – Forth Edition (DSM-IV-TR) (2002) and International Classification of Diseases (ICD-10) (1992). According to DSM-IV-TR (2002) which published by American Psychiatric Association, eating disorders included three criteria, which are listed as below:

307.1 Anorexia Nervosa

507.51 Bulimia Nervosa

307.50 Eating Disorder Not Otherwise Specified

International Statistical Classification of Diseases and Related Health Problems (ICD-10) (1992) developed by World Health Organization (WHO) has categorized eating disorders under section F50, which is under category of behavioural syndromes associated with psychological and physical factors. There are eight sub-criteria of eating disorders, which are:

F50.0 Anorexia Nervosa

F50.1 Atypical Anorexia Nervosa

F50.2 Bulimia Nervosa

F50.3 Atypical Bulimia Nervosa

F50.4 Overeating associated with other psychological disturbances

F50.5 Vomiting associated with other psychological disturbances

F50.8 Other Eating Disorders

F50.9 Eating Disorder, unspecified

There are several diagnostic criteria for Anorexia Nervosa and Bulimia Nervosa in Diagnostic and Statistical Manual of Mental Disorders – Forth Edition (DSM-IV-TR) (2002) and International Classification of Diseases (ICD-10) (1992). The diagnostic criteria shared most of the similarities in both DSM-IV-TR and ICD-10. The table 1.1 has shown the diagnostic criteria of Anorexia Nervosa, whereas

table 1.2 has shown the diagnostic criteria for Bulimia Nervosa, in DSM-IV-TR and ICD-10.

**Table 1.1: The Diagnostic Criteria for Anorexia Nervosa in Diagnostic and Statistical Manual of Mental Disorders – Forth Edition (DSM-IV-TR) and International Classification of Diseases (ICD-10)**

DSM-IV-TR	ICD-10
<p>Diagnostic criteria for 307.1 Anorexia Nervosa:</p> <ul style="list-style-type: none"> <li>A. Refusal to maintain body weight at or above a minimally normal weight for age and height, which is less than 85% from normal body weight.</li> <li>B. Extremely fear of gaining weight or becoming fat, even though underweight.</li> <li>C. Experienced self-evaluation disturbances in body weight and shape, denial the seriousness of low body weight.</li> <li>D. Undergone amenorrhea, which is the absence of at least three consecutive menstrual cycles in postmenarcheal females.</li> </ul>	<p>F50.0 Anorexia Nervosa</p> <ul style="list-style-type: none"> <li>A. Weight loss or lack of gain weight, lead to a body weight at least 15% below to the normal or expected weight for age and height.</li> <li>B. Self-induced weight loss by avoidance of "fattening foods".</li> <li>C. Self-perception of being too fat, with an intrusive fear of fat, which lead to self-imposed low weight threshold.</li> <li>D. Widespread endocrine disorder involving the hypothalamic-pituitary-gonadal axis. In females, it is amenorrhoea and in males, it is a loss of sexual interest and potency.</li> </ul>

**Table 1.2: The Diagnostic Criteria for Bulimia Nervosa in Diagnostic and Statistical Manual of Mental Disorders – Forth Edition (DSM-IV-TR) and International Classification of Diseases (ICD-10)**

DSM-IV-TR	ICD-10
<p>Diagnostic criteria for 307.51 Bulimia Nervosa:</p> <p>A. Repeated episodes of binge eating, and the episodes of binge eating is characterized by:</p> <p>(1) Eating in a short period of time and the amount is definitely larger than usual.</p> <p>(2) A sense of lack of control over eating during the episode.</p> <p>B. Repeated inappropriate compensatory behaviour, such as self-induced vomiting, misuse of medicines, fasting, and excessive exercise to prevent weight gain.</p> <p>C. The binge eating and inappropriate compensatory behaviour are both occurred on average at least twice a week for three months.</p> <p>D. Self-evaluation is overly influenced by body weight and shape.</p> <p>E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa.</p>	<p>F50.2 Bulimia Nervosa</p> <p>A. Repeated episodes of overeating (at least two times per week over a period of three months), in which a large amounts of food are consumed in short periods of time.</p> <p>B. Continuously preoccupation with eating and a strong desire or a sense of compulsion to eat (craving).</p> <p>C. Attempts to counteract the fattening effects of food by self-induced vomiting, self-induced purging, alternating periods of starvation, or use of drugs.</p> <p>D. Self-perception of being too fat with an intrusive fear of fatness. This usually will leading to underweight.</p>

### 1.1.2 Partial Eating Disorder

Besides clinical eating disorders, partial eating disorder is another type of eating disorder. Partial Eating Disorder is originally termed by sub-clinical eating disorder, which is sub-clinical Anorexia Nervosa and sub-clinical Bulimia Nervosa (Button &

Whitehouse, 1981; Stein & Luria et al., 1999). Basically, patients who have Partial Eating Disorder showed a variety of maladaptive attitudes and behaviours of eating, body weight, dieting and physical appearance, but these behaviours do not reach the severity of clinical forms of anorexia nervosa and bulimia nervosa (Stein & Luria et al., 1999).

Woodside and Garfinkel et al. (2001) explained that partial syndrome of anorexia nervosa must meet the criteria of low body weight, and meet another one remaining criteria, which are weight loss, body image concern, concerns about weight loss, or for women, amenorrhea. On the other hand, partial syndrome of bulimia nervosa required recurrent episodes of binge eating, and meeting one of other criteria, which are having weight and shape concerns, feeling a lack of control over their eating behaviour, and having one or more compensatory behaviours. Patton (1999) et al. and Patton et al. (2008) also described Partial Eating Disorders as meeting two criteria of either anorexia nervosa or bulimia nervosa according to Diagnostic and Statistical Manual of Mental Disorders – Forth Edition (DSM-IV-TR).

Stice, Marti, Shaw, and Jaconis (2009) have identified several criteria to define partial anorexia nervosa and partial bulimia nervosa by referred to Diagnostic and Statistical Manual of Mental Disorders – Forth Edition (DSM-IV-TR). According to them, individuals who (a) having the criteria of low body weight and only one of other three anorexia nervosa symptoms; (b) having all anorexia nervosa symptoms except amenorrhea; (c) having all anorexia nervosa symptoms except low body weight; or (d) having only two out of the four anorexia nervosa symptoms can be diagnosed as partial anorexia nervosa.

On the other hand, partial bulimia nervosa are those who (a) having twice weekly binge eating for at least three months and only one other bulimia nervosa symptoms; (b) having all bulimia nervosa symptoms except binge eating; (c) having all of the bulimia nervosa except binge eating and the compensatory behaviours occurred less than twice a week; (d) having only compensatory behaviours; (e) having only binge eating, or (f) having only two out of five bulimia nervosa symptoms (Stice, Marti, Shaw, & Jaconis, 2009).

Meanwhile, some researchers suggested patients who meet the criteria for eating disorder not otherwise specified (EDNOS), atypical anorexia nervosa and atypical bulimia nervosa could be described as partial eating disorders (Chamay-Weber, Narring, & Michaud, 2005). In their research, they use sub-threshold eating disorders and sub-clinical eating disorders as other key words. Stice, Marti, Shaw, and Jaconis (2009) also stated that binge eating disorder and purging disorder have been classified as partial bulimia nervosa.

Partial eating disorders have potential to be developed to clinical symptoms of eating disorder. Patton and Johnson-Sabine et al. (1990) found that 11% of the adolescent girls who are diagnosed with partial eating disorders showed onset of bulimia nervosa over a one year follow up in their research. Stein and Luria et al. also stated that there are at least 15% of the individuals with partial eating disorders progress to full syndrome of eating disorders within several years.

### **1.1.3 Prevalence of Eating Disorders**

Eating disorder is very common nowadays. According to Diagnostic and Statistical Manual of Mental Disorders – Forth Edition (DSM-IV-TR, 2000), the lifetime prevalence of Anorexia Nervosa for female is found to be around 0.5 percent, and male is around one-tenth from female. On the other hand, for Bulimia Nervosa, lifetime prevalence for female is approximately one to three percent, and male are also one-tenth from females.

Many researchers have showed that eating disorders are more common in females. According to Woodside et al. (2001), the prevalence for both full and partial syndrome of eating disorders is higher in female. Generally, the full syndrome of eating disorder for male is 0.29%, while female is 2.12%, which is approximately nine times higher than male. On the other hand, Partial syndrome of eating disorder in male is 1.71% and female is 2.85%. When the percentage is counted by each group, male in partial syndrome of Anorexia Nervosa is 0.76% and female is 1.15%. While for the partial Bulimia Nervosa, male is 0.95% and female is 1.70%.