



Faculty of Cognitive Sciences and Human Development

**ANALYSIS BETWEEN EATING BEHAVIOUR AND THE
EMOTIONAL EATING SCALE SCORES FROM EMOTIONAL
EATING SCALE AMONG OVERWEIGHT STUDENTS IN
UNIMAS**

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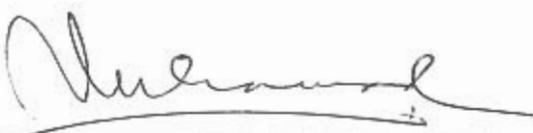
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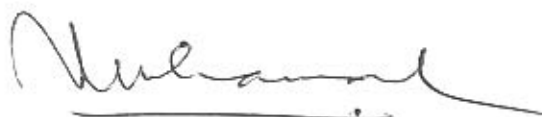
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Statement of Originality

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LIST OF ABBREVIATIONS

ABBREVIATIONS

DEBQ
EES
UNIMAS
WHO

DESCRIPTIONS

Dutch Eating Behaviour Questionnaire
Emotional Eating Scale
Universiti Malaysia Sarawak
World Health Organization

LIST OF SYMBOLS

kg/m^2
 cm

Kilogram per metre square
Centimetre

ABSTRACT

ANALYSIS BETWEEN EATING BEHAVIOUR AND THE EMOTIONAL EATING SCORES FROM EMOTIONAL EATING SCALE AMONG OVERWEIGHT STUDENTS IN UNIMAS

Ng Koh Ing

This research aims to analyse the eating behaviour of overweight students and the relationship with their scores in the EES (Emotional Eating Scale). The samples were obtained through convenient sampling and those with BMI (Body Mass Index) of $\geq 25\text{kg/m}^2$ are selected. 26 of the respondents are male while 25 are female. According to the faculties, there are more respondents from FCSHD (15), followed by FENG (11), FACA (10), FRST (9), FCSIT (4), FEB (1) and finally FSS (1). There are 13 first year respondents, 23 second year respondents and 15 third year respondents. There are 26 Chinese and other races respondents and 25 Malay respondents. The results is that there is no significant relationship between BMI and EES scores. There is asignificant relationship between EES scores with DEBQ sub-scales scores but the DEBQ have a very little changing power on EES scores. There is no significant difference found between race with EES, and race with DEBQ. There is also no significant difference found between gender with EES, and gender with DEBQ.

ABSTRAK

ANALISIS ANTARA TINGKAH LAKU PEMAKANAN DENGAN SKOR SKALA PEMAKANAN BEREMOSI DI KALANGAN PELAJAR-PELAJAR YANG TERLEBIH BERAT BADAN DI UNIMAS

Ng Koh Ing

Kajian ini bertujuan untuk menganalisa tingkah laku pemakanan pelajar-pelajar yang terlebih berat badan dan hubungannya dengan skor Skala Pemakanan Beremosi (EES). Sampel yang diperolehi melalui teknik pensampelan kesediaan dan mereka yang memiliki BMI (Body Mass Index) sebanyak $\geq 25\text{kg/m}^2$ dipilih. 26 daripada responden-responden adalah lelaki dan 25 adalah perempuan. Mengikut fakulti pula, terdapat lebih ramai responden daripada FSKPM (15), dituruti oleh FK (11), FSGK (10), FSTS (9), FSKTM (4), FEP (1) dan akhir sekali FSS (1). Terdapat 13 responden tahun satu, 23 responden tahun dua dan 15 responden tahun. Terdapat 26 responden yang berbangsa Cina dan lain-lain dan 25 orang responden yang berbangsa Melayu. Dapatannya ialah tiada hubungan yang signifikan antara BMI dengan skor EES. Terdapat hubungan yang signifikan antara skor EES dengan skor sub-skala DEBQ tetapi DEBQ mempunyai kuasa sebagai pemboleh ubah yang kecil ke atas skor EES. Tiada perbezaan yang signifikan antara bangsa dengan EES dan bangsa dengan DEBQ. Tiada juga perbezaan yang signifikan antara jantina dengan EES dan jantina dengan DEBQ.

CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter will discuss about the background of the study which looks at how this study has come about in the previous cases where it triggered the interest of the researcher to research about; problem statement which talks about the problems faced in this society that has a lot to do with this research; objectives of the research that tells about the aim of this research; hypotheses which are what the researcher had predicted for the outcome from this research; significance of study which is the importance of this study, how it can be beneficial to others and not only the researcher; definition of terms and finally conclusion.

1.1 Background of Study

This study is conducted to analyse the eating behaviour with regards of the emotional eating scores from the Emotional Eating Scales among overweight students. It is inevitable to say that there are overweight students in Universiti Malaysia Sarawak (UNIMAS). Heavy workloads might have caused emotional eating in students which leads to the increase of weight among the overweight students in UNIMAS. In Malaysia alone, it has been found that the prevalence of obesity in Malaysia in 1996 was 5.8% (WHO, 1996) and the percentage increases in 2004 to 11.7% and that shows that the prevalence of obesity in Malaysia has increased 280% in 8 years (Rampal, 2007).

There is a believe that there are more obese women than men in Malaysia and a health survey conducted in Malaysia has shown that 47.1% of men and 60.2% women in Malaysia suffer from abdominal obesity which will increase cardio-metabolic risk (Bernama, 2006). Emotional eating has been found to be related to depression, stress and binge eating (Pinaquy, Chabrol, Simon, Louyet & Barbe, 2002).

1.2 Problem Statement

Emotional eating is one of the causes that lead to obesity. This is because emotional eating is related to binge eating. Some of the binge eaters are emotional eaters as well (Pinaquy, Chabrol, Simon, Louyet & Barbe, 2002) but emotional eating is not categorised as an eating disorder in the DSM-IV.

There are more obese women than men that could be observed from a national study of prevalence of obesity in Malaysia. It was concluded that the prevalence of obesity was higher in females which is 13.8% as compared to males which is 9.6% (Rampal, 2007). As for racial differences, it is observed in the same study that the prevalence of obesity was as according; Malays (13.6%), Indian (13.5%), "Sarawak Bumiputera" (10.8%), Chinese (8.5%) and "Sabah

Bumiputera" (7.3%) (Rampal, 2007). This has shown that there are difference in the prevalence of obesity according to races and gender. This is at an alarming stage as Malaysia has been found to have more obese patients than in United Kingdom in 2004 (Rampal, 2007).

For emotional eating, there is a tendency that there are more women Emotional Eaters than men because "women have greater cravings than do men (Cepeda-Benito et al., 2003), women have difficulty in resisting their cravings, and women tend to indulge in their cravings when experiencing a negative mood state (Lafay et al)" (as cited in Brooks & Christensen 2006). From here, a relationship between obesity and emotional eating has to be identified. Therefore, it is essential to study about the eating behaviour among overweight and obese people to determine whether they are Emotional Eaters or Non-Emotional Eaters. From this identification, it can help the clinician or therapist to determine ways of intervention to help the obese people to overcome their weight problem.

There are already researches talking about how binge eating is connected to emotional eating. But there are no proper research done on studying about the eating behaviours of Emotional Eaters as most of the Emotional Eaters analysed were obtained from DEBQ. In this research, the researcher will use DEBQ to study the eating behaviour of according to the scores obtained from EES.

According to Allison and Heshka (1992), obese people who are exposed to treatment might have fake belief that they are emotional eating when they are not. This might cause distorted reasoning among the obese respondents when they are answering the DEBQ and EES.

1.3 Objectives

1.3.1 General objective

The general objective is to study the eating behaviours of overweight students from the scoring obtained from EES in UNIMAS.

1.3.2 Specific Objectives

- a) To find the significant relationship of the BMI with Emotional Eating scores.
- b) To find the significant differences of race with Emotional Eating scores.
- c) To find the significant differences of race with eating behaviour.
- d) To find the significant differences of gender with Emotional Eating scores.
- e) To find the significant differences of gender with eating behaviour.
- f) To examine the relationship Emotional Eating score from EES with eating behaviour from DEBQ.

1.4 Hypotheses

- Ho1: There is no significant relationship between BMI with Emotional Eating scores.
- Ho2: There is no significant difference between race with Emotional Eating scores.
- Ho3: There is no significant difference between race with eating behaviour.
- Ho4: There is no significant difference between gender with Emotional Eating scores.
- Ho5: There is no significant difference between gender with eating behaviour.
- Ho6: There is no significant relationship between Emotional Eating scores with eating behaviour.

1.5 Conceptual Framework

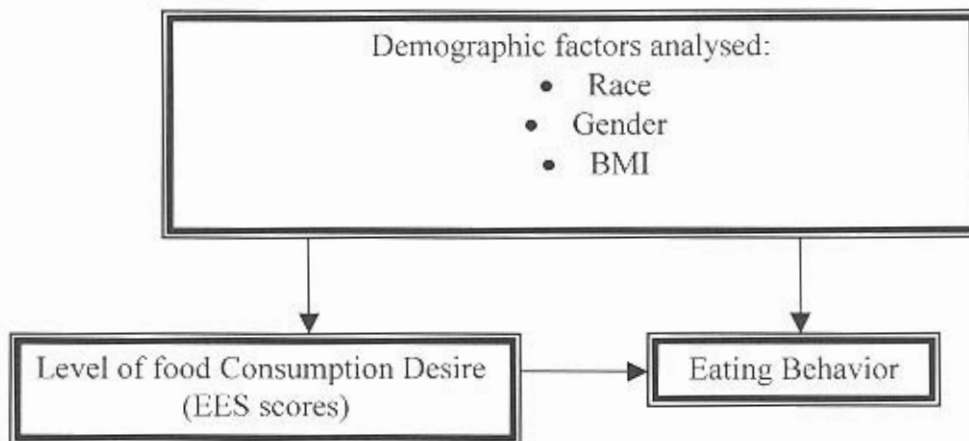


Figure 1.1 *Conceptual Framework*

This conceptual framework will be used as an overview of research. The independent variables are the level of food consumption desire as stated in the scores of EES as they are not determined by any other external factors in this research because the samples of respondents are chosen from a population of overweight students. The demographic factors are independent variables as the percentages of different races and different genders who are emotional eaters will be determined from the analysis of the EES. Eating behaviour is a dependent variable as it will be determined after the overweight respondents fill up the DEBQ. Level of food Consumption Desire will also be a dependent variable when it is regressed with eating behaviour (DEBQ).

1.6 Significance of Study

This study contributes in knowing the difference and the similarities of the eating behaviour from the scoring of EES among overweight students. From the development of EES and DEBQ, there are already an open awareness about the difference of eating behaviour between Emotional Eaters and Non-Emotional Eaters and this can be calculated from the EES. The researcher has also the knowledge that Emotional Eaters tends to be binge eater which leads them to become overweight and there is a connection there. But what the researcher did not know refers to what are the differences between the eating behaviour between Emotional Eaters and Non-Emotional Eaters. This is because some overweight patients suffer from obesity not due to emotional eating, but rather psychosocial factors such as big appetite, lack of movement activities and culture. (Malaysian Association for the Study of Obesity, 2005).

The result will help to increase the knowledge of counsellors on which situation will an overweight people feels the urge to eat the most according to their EES scores. From the result, we can see from the regression regarding the eating behaviour of overweight students and their relationship with the scores in EES. This, even though is not in a clinical setting but can also be used as a guide, since the questionnaires used in the study have been proven their validity. Counsellors will know the specific condition which will trigger the desire to eat.

The result from this study can also be used to develop an intervention model. When a counsellor can identify the specific condition that will trigger the desire to eat, a counsellor can develop an intervention model for Emotional Eaters as well as Non-Emotional Eaters from the EES among overweight to curb the obesity.

1.7 Definition of terms

1.7.1 Overweight

Conceptual

Overweight ranges are determined by using weight and height to calculate the Body Mass Index (BMI). BMI is used because it is considered to correlate with the amount of body fat and the BMI is around 25 kg/m² and 29.9 kg/m². (Centers for Disease Control and Prevention, 2009).

Operational

Overweight here refers to the students whose BMI are 25 kg/m² and above.

1.7.2 Emotional eating scale

Conceptual

Emotional eating is defined as eating in response of negative emotions such as anxiety, depression, anger, and loneliness. (Tanofsky-Kraff, Theim, Yanovski, Bassett, Burns, et al., 2007). Emotional Eating Scale is an instrument developed by Arnow, Kenardy and Agras (1995) to identify the level of desire for food consumptions according to the emotion items in the questionnaire.

Operational

Emotional eating refers eating in response to negative emotions among the overweight students in UNIMAS.

1.7.3 Emotional eaters

Conceptual

There is no exact definition found regarding this term but in researcher's opinion, "Emotional eaters" is defined as the people who practises emotional eating and eats in response to negative emotions.

Operational

"Emotional eaters" is defined as the people among the overweight students in UNIMAS who practises emotional eating and eat in response to negative emotions according to Emotional Eating Scale (EES).

1.7.4 Eating behaviour

Conceptual

There is no specific definition found for this term as well. From the author's understanding from the previous articles about eating behaviour, it is when the person determines how, when and what they are going to eat.

Operational

The eating behaviours here refer to the eating behaviours stated in the Dutch Eating Behaviour Questionnaire and it focuses on the feelings and situations when the person will eat which have three sub-scales (Emotional Eating, Restraint Eating and External Eating).

1.8 Conclusion

This chapter introduced about the why the author decides to do a research on this particular topic. The study was based on the fact that there are increasing amount of overweight people in Malaysia and emotional eating could be one of the factors affecting it. The terms are defined to ensure that readers will understand what the terms meant operationally in this research.

CHAPTER 2 LITERATURE REVIEW

2.0 Introduction

This chapter discusses about the history and literature review of emotional eating where it is further discussed and the relation of emotional eating and other illnesses in common, factors causing emotional eating and the relationship of emotional eating and obesity. In the three subtopics there are also theories related to emotional eating.

2.1 Emotional Eating

According to Christensen (as cited in Brooks & Christensen, 2006), there is a bidirectional relationship between food and mood. Mood in this study refers to the similar emotional disorders experienced which lead to emotional eating; and