# ORIGINAL ARTICLE

# **Body Image and Lifestyles of Obese Person, What is their Perception?**

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### Abstract

**Introduction**: Obesity is a worldwide phenomenon affecting most the country in the world. It is associated with increase mortality and morbidity of the population. Malaysia has the incidence rate for obesity among the highest in the region.

**Objectives:** The aim of this study is to determine the perception of obese person in RCMP on their body image and their lifestyles.

**Methodology:** A cross-sectional study was conducted using a structured questionnaire among 30 selected students and staffs of the RCMP, Ipoh. Respondents visually obese will be selected after getting the consent, BMI will be measured to confirm the diagnosis. Data on their perception to body image and lifestyles, eating habits, physical activity was collected.

**Results:** Out of these 30 obese people, 47% did not perceive that they were obese. More than half (57%) also found to have a poor self - perception on their lifestyles. Most of the respondents (73.3%) did not perform any exercise. Nevertheless, high percentage of these samples were following healthy eating habits. However, no significant association was found between perception on body image and lifestyles with age, gender, marital status, eating habits and physical activities of these obese people.

**Conclusion:** The study has shown that half of the obese person in this study did not aware or felt that they were obese. Quite high percentage of them had poor perception on lifestyles and did not practice healthy lifestyles to prevent the disease and its associated morbidity. A study with bigger samples size is needed to confirm the relationship and come up with innovative program to prevent the disease.

#### Introduction

Obesity is affecting about 13% of the world's adult population and the worldwide prevalence nearly tripled between 1975 and 2016.<sup>[1]</sup> It is a widely phenomenon of advanced society. However, due to epidemiological transition, most of developing countries also has been affected by this lifestyle disease. Being an advanced developing country, the rate of obesity in Malaysia has reached epidemic proportion. In the last 20 years the prevalence of obesity increased from 4.4% % in 1996 to 17.7 % in 2015.<sup>[2]</sup> There have been many studies conducted all over the world to find the solution to this problem. However, none of the country has managed to stop this calamity. Many innovative interventions have been proposed, implemented, and evaluated, but so far none of these methods able to stop the progression of this disease or to reduce it.

Why this disease been so difficult to control or prevent? About 3.4 million adults die each year because of obesity and related illnesses.<sup>[1]</sup> In fact, the social determinant of the disease has been clearly identified. We know that this disease is a result of interplay between various factors such as genetic, hormonal, behavior, and environment. Most countries in the world have adopted the UN declaration and WHO plan to combat noncommunicable disease including obesity in this millennium.<sup>[3]</sup> The strategy is to work together between various sectors, government and nongovernment, private institutions, and civil societies to overcome the issues through innovative intervention suit to the needs of the population.

A lot more focus was given to environmental changes such as better infrastructure to facilitate activities, food and dietary control and improve on health care delivery. Nevertheless, the behavior and perception of the people with obesity have not been improved since then. This study is to reveal the perception of obese person on their body image and weight, as well as to determine effects of the lifestyles of this group of people on the perception.

# **Materials and Methods**

# Study design

This is a cross-sectional study to study the perception of obese person on their body image and weight and to determine its relationship with their lifestyles. The study was conducted among students and staffs of the Royal College of Medicine Perak, Ipoh in November 2014.

# Samples and sampling

Thirty respondents (30) aged 18 and above who visually and obviously obese was selected as samples using snowballing sampling method. The number of samples required for the study was calculated based on the estimated proportion of obese person in RCMP, about 2%, the total population of staffs and students around 1000 and confidence interval of 95%, giving the total sample of 30. Those who did not give consent or refused to participate were excluded from the samples. Their weight and height were measured and only those with a BMI (body mass index) of 30 or more will be interviewed.

# Data collection

The respondents were given a questionnaire comprised of 21 questions (one question on perception of body image, four (4) on eating habits, and thirteen (13) on self-perception on lifestyles, two (2) on physical activity and two (2) on current illness. The questionnaire was developed by the researcher based on other studies and validated its content by an expert. For perception of body image, respondents were asked about their opinion of their BMI and body image either underweight, normal, overweight, or obese. For perception on lifestyles, they were asked 13 questions about their opinion on how obesity affects their social, emotional, and psychological domain. The scores were categorized into good perception and poor perception (appendix 1).

#### **Statistical Analysis**

Data was analyzed using SPSS version 19. Results were presented in frequency distribution and cross tabulation tables. The chi-square statistical test was used to show the relationship between obesity and lifestyles factor.

#### **Ethical consideration**

All personal information of respondents was kept confidential. Consent was taken from respondents before the data collection done. The ethical approval was given by the RCMP ethical committee. No funding was received in support of the study.

#### Results

#### **Sample profiles**

Thirty (30) respondents who fulfill the criteria of the study agreed to participate of which 12 were male and 18 were female. Eighty per cents (24) aged 35 and below and 11 (36.7%) were married.

#### Perception of body image and weight

Out of 30 obese people in this study, 46.7% perceived themselves as overweight and 53.3% felt that they were obese. Among respondents perceived themselves as obese only 20% practicing unhealthy eating habits as compared to 50% of those perceived themselves as overweight. In terms of activity, respondents who perceived themselves as obese, 81.3% were inactive compared to 64.3% among those who perceived themselves as overweight, however the difference was insignificant.

#### Lifestyle of obese person

Out of 30 respondents, 37% admitted that they did not control their diet, but most of obese person in this study (63%) in fact trying hard to maintain their weight by practicing healthy eating habit. Among young obese person (<35), 33.3% (8/24) practicing unhealthy eating as compared to 50% (3/6) among the old one. Unhealthy eating was practiced by 26.3% (5/19) of single people as compared to 54.5% (6/11) among the married respondents. Females 66.7% (6/18) adopting unhealthy eating as compared to 41.7% among males.

In terms of physical activities, it was obvious that more than 70% (73) of obese person were inactive physically. All respondents above 35 were physically inactive. Among married respondents only 6.7% were active.

#### **Self-perception on lifestyles**

Almost 60% (56.7) of respondents having poor perception on lifestyles. More of old person had a poor perception on lifestyles (66.7%) as compared to young persons (<35) 54.2%. However, the difference was not significant by using Fisher exact test (Fig 1.0). In terms of marital status, about 63.3% of single person had a poor perception on lifestyles. Females had a poorer perception on their lifestyles (66.7%) as compared to male (41.7%).

No significant association was found between self-perception on lifestyle with eating habits and physical activity.

#### **Current illness**

All obese respondents aged above 35 years old were suffering from illness compared to 20.8% among the young.

#### Discussion

Obesity is a disease of multifactorial etiology. It is a disease associated with the defective genetic makeup of the person, biochemical and hormonal imbalance of the body, in equilibrium between metabolism and catabolism, imbalance energy input and output, improper dietary intake, poor perception and behaviour, non-supporting environment and culture. The complex interplay between various socio-demographic determinants of disease makes the disease difficult to prevent or control.<sup>[4]</sup> In this study, almost half (46.7%) of the obese person did not perceive themselves obese even though their knowledge of the disease is above than average Malaysian population. Males have tendencies to underestimate their weight and body image. Other studies have also shown similar finding in term of perception of body image, especially in the culture where obesity is the acceptable norm. <sup>[5,6]</sup>

Poor perception of body image, self-esteem and social life was observed in 56.7% of the study respondents. Weight disruption is a common phenomenon in obese people, particularly women.  $^{[7,8]}$  In this study, obese female respondents (40%) had a poor perception as compared to male (16.7%). Most of our respondents were dissatisfied with how they look at the mirror. The study among university students aged between 20 to 24 in Morocco found that the total prevalence of body image dissatisfaction was around 69.8%. <sup>[9]</sup> More than 90% of Mexican adult population tend to underestimate their weight.<sup>[10]</sup> Correct perception of body weight and being overweight or obese, were important in the prevention of many non-communicable diseases. Obesity decreases their self-esteem, self-confidence and, in some cases, isolation and exclusion. <sup>[11,12]</sup> Their skills sometimes affected communication because of low self-esteem, especially among the single people. The obese, a married person has a stable feeling and a higher confidence in his life. <sup>[13,14]</sup> Obese persons may feel discriminated against by others, for instance, during a job interview.<sup>[15]</sup> They were disgraced and sometimes depressed because they were ridiculed by the interviewer for their appearance and low selfesteem.

This study revealed that most of respondents practicing healthy eating habits (63.3%). Although they have difficulty to reduce their weight, most of them have good knowledge and understanding of food and dietary intake. Failed to burn the calories through exercise and active lifestyles probably the main reason for inability to reduce their weight. As in this study, 73% of respondents were considered inactive person. The percentage of inactivity among this obese population was much higher compared to the obese population from other study, only 34.9% of obese person in Chilean adults were inactive.<sup>[16]</sup> Different reasons were given for their inability to be active such as no support from family or spouse, time constraints, work commitment, poor health, etc. The sedentary working environment has led to poor energy output, together with lack of exercise may induce obesity. <sup>[17, 18]</sup> In Nurses' Health Studies (NHS), it was found that apart from dietary factors (sweetened beverages, poor diet quality), lifestyle factors such as physical inactivity, prolonged screen time, short sleep duration or shift work, and built environment characteristics were associated with obesity. Although genetic factors also predispose individuals to obesity, but such susceptibility can be attenuated by lifestyle choices.<sup>[19]</sup>

The results of the study should be interpreted cautiously since it was a cross-sectional study in a single institution without control and using a convenient snowballing sampling. Further study using the representative and larger number of samples and more institutions probably will give a better picture on the issue.

#### Conclusion

The study has shown that half of the obese person in this study did not aware or felt that they were obese. Quite high percentage of them had poor perception on lifestyles and did not practice healthy lifestyles to prevent the disease and its associated morbidity. A study with bigger samples size is needed to confirm the relationship and come up with innovative program to prevent the disease.

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Figure 1. Age and self-perception of lifestyle

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# Appendix 1 Perception on lifestyle's questionnaire.

no	questions	response
1	Do you feel comfortable with your body now?	a. Yes b. No c. I am not sure
2	Do you want to get better shape?	a. Yes b. No c. I am not sure
3	Do you experience shame or other uncomfortable feelings about your appearance?	<ul> <li>a. Always</li> <li>b. Sometimes</li> <li>c. Rarely</li> <li>d. Never</li> <li>e. I am OK with my state now.</li> </ul>
4	Does your appearance makes you depressed?	a. Always b. Sometimes c. Rarely d. Never
5	How would you feel if any of your family members or friends are overweight?	<ul> <li>a. Discouraged to change my appearance</li> <li>b. Empowered to change my appearance</li> <li>c. Indifferent</li> <li>d. My family members are not obese</li> </ul>
6	Have your romantic relationships been limited because of your obesity.	<ul> <li>a. Always</li> <li>b. Sometimes</li> <li>c. Rarely</li> <li>d. Never</li> <li>e. I don't have partner</li> </ul>
7	Have your social life been limited because of obesity?	a. Always b. Sometimes c. Rarely d. Never
8	Do you feel uncomfortable about your appearance when you look at yourself in the mirror?	a. Always b. Sometimes c. Rarely d. Never

•	a. Always
uncomfortable or embarrassed	b. Sometimes
about your appearance at	c. Rarely
public or social gathering	d. Never
where you know few people?	
Have you experienced any	a. Always
mistreat or discrimination by	b. Sometimes
people?	c. Rarely
	d. Never
Do you feel socially unaccepted	a. Always
	b. Sometimes
C	c. Rarely
	d. Never
Do you feel afraid of being	a. Always
rejected because of your state?	b. Sometimes
	c. Rarely
	d. Never
Do you ever feel loss of	a. Always
confidence when you are with	b. Sometimes
attractive people?	c. Rarely
	d. Never
	public or social gathering where you know few people?         Have you experienced any mistreat or discrimination by people?         Do you feel socially unaccepted or difficult in making friends?         Do you feel afraid of being rejected because of your state?         Do you ever feel loss of confidence when you are with