

CHAPTER III

METHODOLOGY

3.1 Design of the Study

The use of descriptive analytical method was based on the interview, observations and collection of information through questionnaires. Food habits of Libyan community in Malaysia were assessed by using the food frequency questionnaire on the selected food items. Body Mass Index (BMI) was used for the assessment of overweight and obesity. The waist circumference (WC) was measured to assess abdominal obesity.

3.2 Sample of the Study

Population size of 300 (150 males + 150 females) were chosen from the Libyan community in Malaysia. The age of participants was from 18 years to 60 years.

3.3 The main measures

Body Mass Index (BMI): It is defined as the weight in kilograms divided by the square of the height in meters (kg/m^2). A value of $\text{BMI} < 18.5 \text{ kg}/\text{m}^2$ was classified as underweight, $18.5\text{--}24.9 \text{ kg}/\text{m}^2$ was classified as normal weight, $25.0\text{--}29.9 \text{ kg}/\text{m}^2$ was classified as pre-obese (overweight), and $\text{BMI} > 30$ was classified as obese. (WHO,2002; WHO,2004).

Waist circumference (WC): Is a convenient and simple measure which is unrelated to height, correlates closely with BMI and the ratio of waist-to hip circumference, and is an approximate index of intra-abdominal fat mass and total body fat. Furthermore, changes in waist circumference reflect changes in risk factors for cardiovascular disease and other forms of chronic diseases, even though the risks seem to vary in different populations. There is an increased risk of metabolic complications for men with a waist circumference ≥ 102 cm, and women with a waist circumference ≥ 88 cm. (WHO, 1997). Recently, the use of waist circumference in itself an indicator of the risk associated with excess fat in the abdominal area (Wiley, 2000). In this study, waist circumference was measured at the mid-level between the lowest rib and the iliac crest, by measuring tape.

3.4 The study of Questionnaires

The questionnaires were administered on twenty (20) people by a pilot study to determine its acceptability and ease of use by the study participants. The pilot study was carried out in order to identify potential problems and to revise the methods and logistics of data collection before starting the actual fieldwork. The selected appropriate tools were used for the collections of the needed informations. In this study, the factors are associated with obesity, were dietary habits, smoking, physical activity, and socio- demographic factors (Figure 1,2).

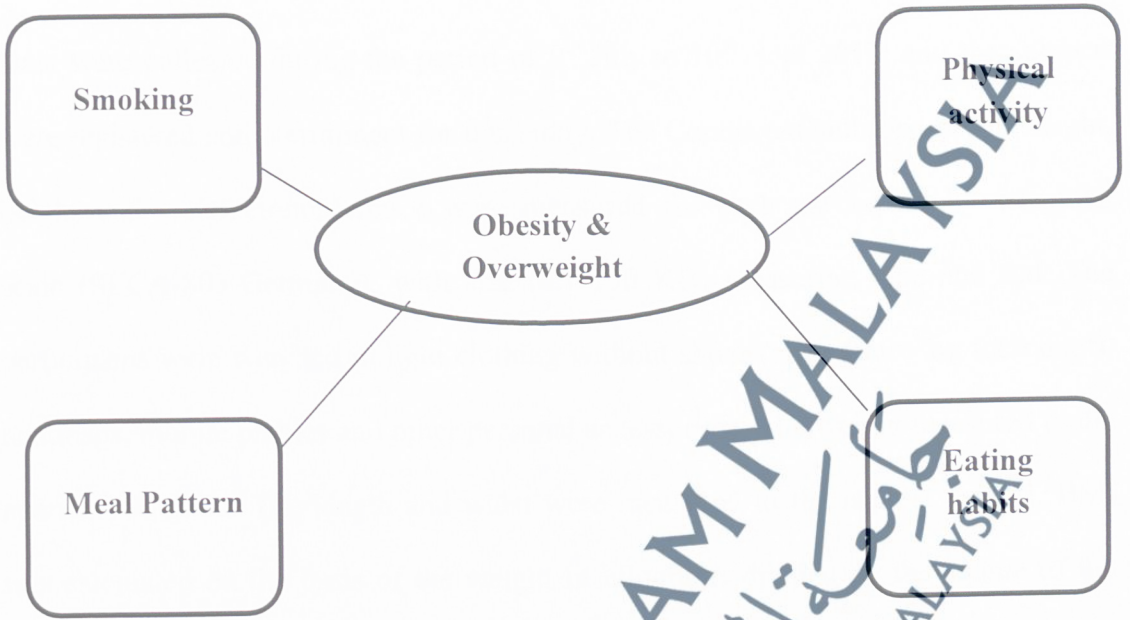


Figure 1 : Design of questionnaire.

Socio-demographic variables:

In this study the socio demographic variables were age, social status, living conditions, education, family monthly income. Independent variables and dependent variables.

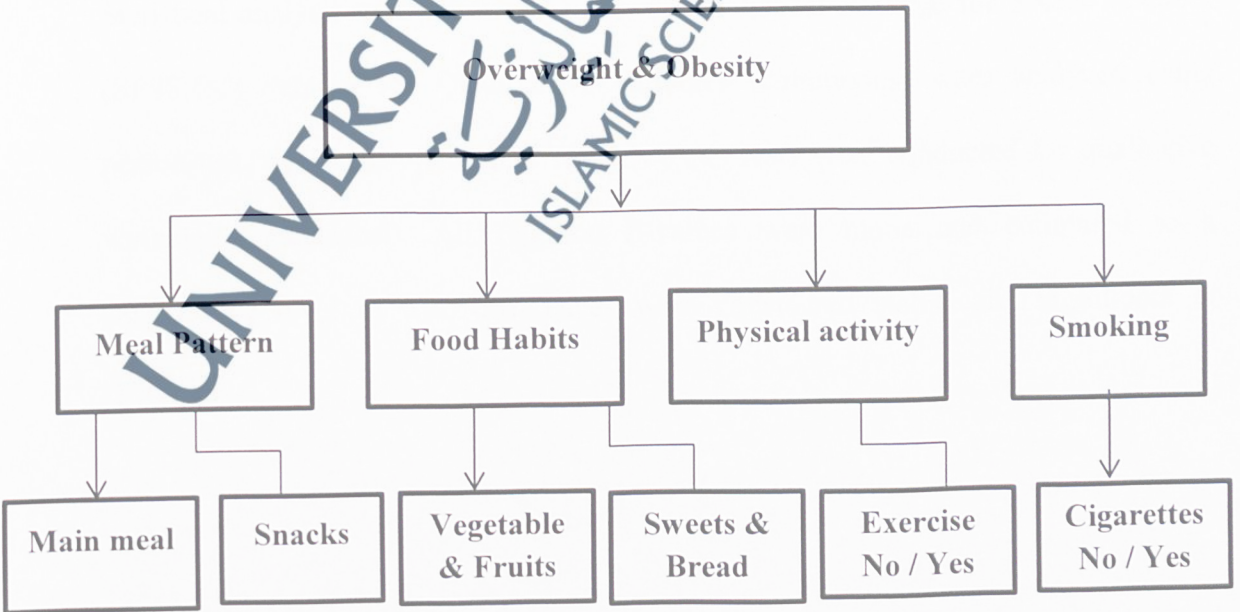


Figure 2 : Conceptual framework for some causes of overweight and obesity

3.5 Collection procedures of data

Data were collected during the period of 9th July to 10th Sept 2013, and the subjects were registered and recruitment for this study. The Conducted anthropometric weight, height and waist circumference were measured for each participant by weighing scale (SECA-803-Germany), with size (0.1-150 KG) measuring tape and rod. The participants were weighed in light clothing without shoes (after removing their coats, handbags, mobile phones and other personal accessories). The weight measured to the nearest 100 gram. The length and waist were measured to the nearest 0.5 cm. BMI was calculated on the basis of the weight in kilograms divided by the square of the height in meter (kg/m^2). BMI was based on the World Health Organization (WHO) BMI cut-offs (Classified as BMI $<18.5 \text{ kg/m}^2$ and underweight, $18.5\text{-}24.9 \text{ kg/m}^2$ and classified kg/m^2 and get a normal weight, and is classified $25.0\text{-}29.9 \text{ kg/m}^2$ as pre obese and classified (Overweight), and > 30 and obesity).

3.6 Data Analysis

Statistical analysis was performed using the Statistical Package for Social Sciences (SPSS-PC) version 15. Quantitative variables (continuous) were analyzed using person-test, while chi-square and Fisher's exact tests were conducted for qualitative variables (categorical). All reported P-values were made and compared to a significance level of 5%; differences were considered statistically significant at ($p < 0.05$).