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Body Fat Composition Level among UPSI Non-Academic Staff

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Abstract

This study was conducted to identify BMI levels and abdominal fat content among non-academic UPSI staff based on gender. The instruments used are the Omron Krada Body Fat Analyzer and the High Performance Tool (Charder). The study subjects consisted of UPSI non-academic staff (n = 130). The findings showed that the BMI and abdominal fat content of non-academic staff was lower than that of female staff. The implications of this finding can be stimulating for everyone to adopt a healthy lifestyle which in turn has a positive impact and can improve the quality of health and prevent individuals from suffering from illness.

Keywords: BMI, Body Fat, Inactivity, Overweight

Introduction

Obesity is defined as a condition in which abnormal or excessive accumulation of fat in adipose tissue is detrimental to one's health (World Health Organization, 2013). Roughly, overweight and obesity syndrome is a condition where excessive fat accumulation occurs in many parts of an individual's body which results in abnormal weight gain for the individual's age, sex and height. According to the NHMS IV report, Ministry of Health Malaysia (2011), cases of obesity are also identified as being closely related to genetic factors, hormone imbalance and environmental factors.

Overweight and obesity problems have increased worldwide with dramatic changes across the country (Majid, 2015). There are many risk factors that can contribute to obesity such as genetics, dietary intake, physical activity and inactive lifestyle. Obesity is a major health and social problem not only in Malaysia but around the world. This problem is so significant that the term 'globalization' has been coined to describe the seriousness and global nature of the problem. The alertness to obesity has led many researches been conducted throughout the years (Elumalai, Hashim, Sankaravel, & Chia 2015; Kholid, 2017; Rahim, Hamzah & Shalan, 2018; Khalid, Ahmad, Mustafa, Hashim & Madon, 2013; Mustafa & Zakaria, 2017; Mustafa, Awang & Nadzalan, 2017). According to Yanvoski (2002), a study conducted in the United States found that 27% of the country's population is obese while in Malaysia, 20.7% of adults are overweight while 5.8% are obese.

According to a National Health and Morbidity Survey (2006); Fasan, Marcon (2018) survey, about 2.6 million Malaysians had diabetes last year. Director-General of Health, Dr Hasan Abdul Rahman, said statistics from NHMS show that diabetes in Malaysia has increased by 31 per cent in five years compared to the 11.6 per cent increase in 2006 for every Malaysian adult aged 18 and above. According to him, among the factors contributing to the increase in diabetes among Malaysians include obesity, genetics, lifestyle and unhealthy diet, alcohol consumption, smoking and undergoing regular medical examination.

Abandonment of knowledge of healthy eating practices has been a major factor in the cause of this problem. According to Ali and Farihah (2013); Darwish, Abdo, & AlShuwaiee (2018), the percentage of obesity in urban areas is 21% higher than in rural adolescents, 16.3%. Therefore, balanced dietary intake can help the human development process to be more perfect especially in terms of physical formation.

In addition, a lack of physical activity is defined as an inactive lifestyle. Over time, this inactive lifestyle can lead to chronic conditions such as obesity that harm the well-being of individuals and pose a public health burden to the community. According to the Ministry of Health, (2011) obesity has been a growing problem in many countries and corresponds to a steady decline in the prevalence of infectious diseases in the first half of the 20th century. Malaysia is no exception to the problem of rising standards of living accompanied by an increase in weight gain and obesity statistics also show that Malaysia is the country in the Asian region with the highest prevalence of obesity and obesity among adults, adolescents and children (Wafa, Talib, Hamzaid, Mccoll, Rajikan, Ng & Reilly, 2011; Nachiappan, Hock, Zabit, Sukri, Suffian & Sehgar, 2018). To address these obesity-related issues, most developed countries use state-of-the-art advanced technology and healthcare to diagnose the disease by examining or diagnosing its symptoms and managing the increasing number of obesity-related complications. The same is true in Malaysia, but the cost to get this service is huge. Therefore, it is important and strategic for us to take early intervention in curbing a pattern of physical inactivity among Malaysians of all ages.

According to a National Health and Morbidity study, over the past 30 years, the rate of physical activity among Malaysians has dropped dramatically, while diabetes has increased 4-fold and obesity has increased by 280% (Institute for Public Health (2008); National Health and Morbidity Survey (2006); Rampal, Khor, Zain et al., (2007) & Tam, Bonn, Yeoh, Wong (2016)). The findings of this study clearly indicate that inactivity in physical activity is a contributing factor to the increasing problem of obesity in Malaysia.

The global approach to increased fatty nutrition, low sugar and fiber intake, as well as reduced physical activity by most people around the world, has led to major health problems such as overweight and obesity. Obesity prevalence is higher in Malaysia compared to other South East Asian countries. Currently the estimated overweight for Malaysians is 29.1% and obesity is 14%. Overweight and obesity rates in Malaysia increased by 12.5 and 9.6% overall between 1996 and 2006 (National Health and Morbidity Survey, 2006).

Chronic illness is one of the important elements to consider in the financial provision of services in Malaysia, however, obesity is not given proper attention despite its close association with various chronic diseases and is a risk factor for various chronic diseases.

According to the National Heart, Lung and Blood Institute Obesity Task Force (1998), obesity is also associated with diseases such as osteoarthritis, increased cholesterol levels, sleep apnea and respiratory problems.

Health should be maintained at home or at work. Creating a healthy and safe workplace is the responsibility of employers and employees of an organization. WHO has considered that a healthy workplace is a place where all members work together to realize the vision of the workforce and thus a healthy community. This is also in line with the requirements of the Occupational Safety and Health Act 1994 which states that employers and employees are responsible for ensuring the health and safety of members of an organization. A healthy workplace will motivate employees to continue to provide good service. This will reduce the rate of sick leave and assist in the growth of workers.

Cardiovascular disease is a risk factor associated with chronic non-communicable diseases (NCD) such as heart disease, Diabetes Mellitus and Hypertension (Borrel & Lalitha, 2014; Aravani & Dimasi, 2016). Obesity also causes physical problems in the bones and veins and has an impact on mental health (Dario, Ferreira, Refshauge, Sanches- Romera, Suarez, Hopper, Ordonana, & Ferreira, 2016). Chronic illness is a disease that can be treated and controlled if preventive and preventive measures are taken by the patient (Jensen, Suadicani, Hein & Gyntellberg, 2013). These measures include healthy eating, exercise, stress reduction and taking treatment for certain diseases. This study aims to give employers and employees the initiative to create a healthy workplace where the emphasis is placed on the health of the locals.

A study conducted by Norafidah (2013) found that the percentage of women with obesity is higher than that of men. Similarly, a study conducted by Mohd Sidik, Sherina and Lekhraj (2009) found that obesity prevalence is high for older women between the ages of 50-59. This is due to dietary factors, unhealthy lifestyle and also lack of physical activity. In contrast to the study conducted by Herreraa, Cecilia & Lindgrenab, (2011), where childhood factors such as social factors influence a person's body mass index (BMI) as they grow older. The contributing factors to obesity problems in this study are consistent with Herreraa, Cecilia & Lindgrenab (2011) study that family lifestyle, culture and values applied through physical activity during childhood play an important role in influencing body mass index (BMI).

Karen, Swallen, Reither, Steven and Ann (2005) conducted a study on 4643 adolescents using the National Longitudinal Study of Adolescent Health (1996). The findings show that obesity is closely linked to an unhealthy quality of life. Adolescents of normal weight do not face stress, self-esteem or social functioning. This finding confirms that individuals who do not practice a healthy lifestyle will have lower health or fitness levels. This affects their performance in physical activity and results in less social functioning and psychological problems.

This clearly indicates that UPSI staff has a variety of health problems based on statistics from the UPSI Health Center. In this regard, preventive measures and preventive measures of health, especially chronic diseases, should be emphasized not only at home but at work. The impact of cardiovascular disease on productivity productivity is that a number of psychosocial problems such as stress, low self-esteem, job discrimination and some form of social stigma

will dramatically lower quality of life. In addition, competition, productivity, innovation and capabilities and capabilities in the management of new technologies will be determined by the quality of the human resource itself. Human resource development must have policies and programs in place to improve or improve the quality of society. Therefore, programs for quality improvement should be carried out in the workplace including programs that improve the health of workers.

As human beings, UPSI staff cannot escape the problems of their lives. Things like lifestyle changes, environmental conditions, stress and workload and other factors may cause physiological and psychological problems leading to health problems. This will also disrupt their work performance and affect their productivity.

The objectives of this study are to determine the BMI and abdominal fat level among UPSI non-academic staff based on gender.

Methodology

This study used a one shot case study design, in which data were collected from existing study subjects without any training or treatment intervention. The findings of this study will be analyzed using descriptive statistics. Researchers use simple random sampling techniques that capture individuals at random and can provide collaboration that can aid the study. A simple sample is a sample that may have been available with the researcher and the study was open-ended and did not require specific sample characteristics. Respondents comprised of 130 UPSI non-academic staff (46.9%) comprised 61 male respondents and (53.1%) comprised 69 female respondents. A number of respondents (83.1%) are Malays, namely a total of 108 people, 8 (6.2%) are Chinese, Indians with 9 respondents (6.9 %%) and the rest is the other nation which consist of (3.8%) is equal to 5 people who were selected to be respondents in this study. This study used a tool (Omron Krada Body Fat Analyzer) to measure body mass index and abdominal fat content. It is also a measure of body composition that includes the BMI aspects of height and weight. It determines the total amount of weight, percent and amount of body fat, muscle mass, body fluid, and bone mass. The data obtained is collected and will be referenced through the Body Mass Index Classification Chart. This study also uses a high-performance gauge (Charder). The purpose of this tool was to measure the height of the respondents in order to obtain accurate readings, BMI and abdominal fat for each repondent in this study.

Findings

The aim of this study was to find the Body Mass Index level in UPSI non-academic staff by gender and the level of abdominal fat content among non-academic UPSI staff by gender.

The results show that female respondents have a higher BMI than men. The results showed that male respondents had a BMI of less weight than females with 1 person (1.6%) while female respondents were 2 (2.9%). For the BMI category with the highest weight, males were lower than the female respondents as 28 male respondents were in the superior weight category (45.9%) and 29 female respondents (42%) were in the superior weight category. Furthermore, the results showed that BMI in the heavier category, male respondents were lower than women at 22 (36.1%) and female as 29 respondents (42%). The BMI category of

obesity results showed that male respondents were higher than female (104%) and 9 (13%) were female respondents.

The results showed that female respondents had higher fat content than men. The results showed that male and female respondents with low abdominal fat were the same as men 1 (1.6%) while female respondents 1 person (1.4%). For the normal abdominal fat category, the study found that male respondents were lower than female respondents being 19 men (31.1%) and 26 women (37.7%). In addition, high levels of abdominal fat showed higher female respondents than 34 respondents (49.3%) for female respondents and 16 male respondents (26.2%). Finally, the category was very high for abdominal fat, the study found that male respondents were higher than female respondents being 25 male respondents (41%) and 8 female respondents (11.6%).

Conclusion

Based on the findings, it can be concluded that female respondents have excess weight and fat problems compared to male respondents. This clearly indicates that UPSI staff has a variety of health problems based on statistics from the UPSI Health Center. In this regard, preventive measures and preventive measures of health, especially chronic diseases, should be emphasized not only at home but at work.

The impact of cardiovascular disease on work productivity is that some psychosocial problems such as stress, low self-esteem, job discrimination and some form of social stigma will dramatically lower quality of life. In addition, the competitiveness, productivity, innovation and capabilities and capabilities in managing new technologies will be determined by the quality of the human resource itself. Human resource development must have policies and programs in place to improve or improve the quality of society.

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