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Healthy Lifestyle Among School of Quantitative Sciences Lecturers, Universiti Utara Malaysia (UUM)

Maryam Rukayyah Al-Munirah Binti Ayob¹, Mohamad Shukri Bin Abdul Hamid¹, Faezzah Binti Mohd Daud¹, Ong Yi Sean¹,

¹Universiti Utara Malaysia (UUM)

Correspondence: Maryam Rukayyah Ayob (yamira.ayob@gmail.com)

Abstract

The role of individual healthy behaviors like physical activity, nutrition and stress management on reduction of rate of disease mortality and morbidity is well known. The aim of this study is to determine healthy lifestyle in lecturers employed in School of Quantitative Sciences, University Utara Malaysia, in 2019. Materials and Methods: The participants of this cross-sectional study were 66 lecturers in School of Quantitative Sciences, selected via random sampling method. The data collection was performed using a questionnaire including demographic healthy lifestyle questions. Analysis of the data was performed through Software Statistical Analysis System Enterprise Guide (SAS EG) version 7.1. Results: The mean age of the subjects was 42.68 ± 1.37 years and, BMI mean was 24.13 ± 0.86 . 92.42% of them were married and 7.58% also were single. Conclusion: According to the results, planning for lecturers in School of Quantitative Sciences for receiving information about healthy lifestyle on weight control and nutrition are important.

Keywords: behavior, healthy lifestyle, stress management

Introduction

The word of "lifestyle" is a comparatively familiar concept that is generally used to refer to people's way of living and represents the full range of activities, behaviors and social values. Next, lifestyle involves behaviors of eating habits, physical activity and exercise, sleeping and resting, weight control, alcohol consumption and smoking, disease immunization, dealing with stress and lastly the capability to utilize the support from family and community. Some researchers have shown that there is a strong relationship and correlation between health and lifestyle (Pirzadeh A, Sharifirad G, Kamran A, 2012).

Additionally, health is known as a global trait such that it was defined as a condition of complete physical and mental, social well-being and denied the presence of any disease. Health has fully commitments to general well-being and long-term lifestyle. Health is essential for a person as to enjoy a valuable life. This can be achieved as a result of well-being health habits. Several factors have mainly contribute to the health of an individual. These factors include the basic diet and nutrition in which support the individuals in different ways. Consuming the appropriate portion of nutrients is crucial for an individual's workout every day.

Based on gender, age and wealth, everyone can practice a healthy lifestyle in their life. Does not need to sign up as a member in the costly gymnasium to do exercise or bought any high-cost organic food if

you can practice the healthy lifestyle in your own way. The important key for community to live a healthy lifestyle is determined the balance diet in what they eat and drink and do some physical activities or exercise. Even though it seems hard to adopt new lifestyle, but they will get used to the routine (Ridzuan et al., 2018).

Methodology

The development of construct items

In this study, the Healthy Lifestyle instrument were developed and made up of the six aspects of interest to examine the factors that influence the healthy lifestyle. All of the aspects are based on the previous study.

Figure 1 Six aspects of Healthy Lifestyle

Figure 1 shows the six aspects of Healthy Lifestyle in which 45 items were embedded in order to examine the factors that influence the healthy lifestyle.

The instrument

The instrument applied in this study is questionnaire. It consists of two main sections. Section A has included all the demographic information such as gender, age, body weight and height, race and marital status. Meanwhile, Section B was constructed with 45 items from the six aspects that related to healthy lifestyle.

The Measurement Scale

The instrument for this study was established based on the 45 developed items and intend to examine the factors that influence healthy lifestyle. All the items were measured at individual level. In section A, there was some closed-ended questions such as gender, race and marital status were asked. Also, the respondents were required to note down their age, height and weight. Section B which consists of 45 items related to healthy lifestyle has employed the 5-point semantic scale. These 5 points were range from 1 as never to 5 as very often. The measurement scale was constructed to measure the healthy lifestyle among SQS lecturers.

Validity

The validity process in this study was conducted through content validity. In this method, the questionnaire was verified by the lecturer that guiding the project before distributed to the respondents. Next, pilot study was conducted by distributing the questionnaires to 20 lecturers in SQS. The

reliability of the data collected were being check. This is to ensure the items in the questionnaire were suitable. The Cronbach Coefficient Alpha obtained was 0.9269 which indicated an excellent internal consistency.

Data Collection

This study was conducted to determine the factors that influence the healthy lifestyle among SQS lecturers. The population of this study were 80 lecturers. According to Krejcie and Morgan (1970) table, the estimated sampling size was 66 respondents. Hence, 66 questionnaires were distributed throughout the study.

Data Analysis

In this project, previous literature, content validity and pilot test were conducted in order to examine the reliability and validity of the items in the six aspects of healthy lifestyle. All the data collected were than analyzed using Statistical Analysis System (SAS) Enterprise Guide version 7.1. The demographic data were analyzed using descriptive analysis. Meanwhile, the section B which made up of the 45 items were analyzed using factor analysis method after rated by respondents. Next, the reliability test for each factor were also carried out. Last but not least, multiple linear regression was also conducted in order to obtain the model of healthy lifestyle.

Result and Findings

There were 22 or 33.33% of male respondents and 44 or 66.67% of female respondents involved in this study. There were three age groups of respondents involved in this study. Majority of the respondents were in the age between 40 to 49 years old. Meanwhile, 17 out of 66 respondents or 25.76% were at the age of 30 to 39 years old. Only 9 respondents were from the age group of 50 years old and above. Majority of the respondents which was 64 or 96.96% of respondents are Malay. Meanwhile, there was only one Chinese respondent and others only make up 1.52% in this study. Majority of the respondents has been married while only 5 out of 66 respondents or 7.58% were single. For the descriptive analysis for age of respondents and body mass index, the mean age of respondents was 42.68 ± 1.37 years. Meanwhile, the BMI mean was 24.13 ± 0.86 which indicated that the respondents have normal weight at the average.

A t-test is widely used in the inferential statistics in order to identify either there is a significant change in difference or not between the means of two groups. Based on equality of variances table in sas output, $Pr > F$ has the value of 0.6993 and it is greater than 0.05. Therefore, the variances are equal. Next, the confidence interval for BMI and gender is (-2.5744, 1.0826). Additionally, the hypothesis of comparing means of BMI and gender shows that the result for t-value and p-value are -0.81 and 0.418 respectively. Since, the t-value is less than p-value, hence there is a sufficient evidence to reject the null hypothesis, H_0 and there is a significant difference between means for BMI and gender.

In order to measure the internal consistency, Cronbach's alpha is used to see how closely the items in a group. The high value of alpha does not indicate that the measure is having one dimension. To check the dimensionality, exploratory factor analysis is one of the methods that act as an additional analysis. This can provide an evidence that the scale is having one dimension. As we know, Cronbach's alpha are known as coefficient of reliability and it is not a statistical test.

Figure 2: Scree plot graphs with the eigenvalue against the factor number

From the figure above, it shows the scree plot graphs with the eigenvalue on vertical axis against the factor number at the horizontal axis. For the first sixth columns show that the values in the table is immediately above. Besides, for the next factor, which is from the seventh factor on, line is almost flat until the last factor as the eigenvalue decreases, where it means that the successive factor is consider for smaller and smaller amounts of the total variance.

Table 1: Name of each factor

F1	Reproductive and Mental Health
F2	Weight Control and Nutrition
F3	Food Consumption
F4	Physical Activities and Exercise
F5	Health Care
F6	Working life

There are 6 factors that can be obtained from the factor rotation according to the factor loading. In factor 1 there are 15 items that comprises the factor loading ranging from 0.51 to 0.74. Furthermore, for the factor 2, the factor loading in range 0.49 to 0.78 comprises 11 items. In addition, factor 3 consist of 3 items with the factor loading in range 0.80 to 0.85. Factor 4 comprises 6 items with the factor loading between ranges 0.54 to 0.67. Factor 5 consist of 3 items with the factor loading between ranges 0.41 to 0.84. Finally, for the last factor 6 comprises 3 items with the factor loading in range -0.57 to 0.74.

The variable for reproductive and mental health, food consumption and health information were eliminated in the first step, due to the lowest value of partial correlation of any variable as all other predictor variables included in the regression model. Additionally, weight control and nutrition are statistically significant as the p-value less than 0.05, whilst physical activities shows that the variable is insignificant as the p-value is more than 0.05. Lastly, based on the selected model in multiple linear regression using backward method, the model can be written as below:

$$\text{Healthy lifestyle} = 23.54342 - 1.61053 (\text{weight control and nutritions}) + 1.58161 (\text{physical activities})$$

Lastly, this multiple linear regression model analysis showed that the independent variable of weight control and nutrition has a negative linear relationship, while physical activities has a positive linear relationship with the dependent variable of BMI and both variables have a very weak relationship with the BMI. Next, weight control and nutrition contribute significantly to the BMI, however physical activities do not contribute significantly to the dependent variable, BMI. This research has shown that both variables of weight control and nutrition, and physical activities is the most influential factors contributes to the BMI of SQS lecturer, as the variance inflation for these two variables are the same, 1.53794.

Conclusion

From the tables in the analysis section, the results represent the factors of healthy lifestyle among School of Quantitative Sciences in University Utara Malaysia. Furthermore, there are 6 factors that can be obtained that influence the healthy lifestyle among SQS lecturers which are reproductive and mental health, weight control and nutrition, food consumption, physical activities and exercise, health care and working life. Among all the factors, weight control and nutrition and physical activities were selected as for the full model of multiple linear regression by using the backward method and were suggested as the main reason that influence the BMI. The successive factor will account for smaller and smaller amount of total variance. According to the Davis and Stoppler (2018), ingest healthy meals, physical activities and exercise regularly and developing healthy lifestyle can improve mental health.

Recommendation

Most of the previous research were conducted to explore the healthy lifestyle among students and workers in others field. There was limited number of researches being done to define the healthy lifestyle among lecturers in University. Thus, more similar studies should be conducted in order to contribute to the healthy life in the particular field. Also, the study was only conducted among lecturers in SQS, UUM. Thus, it is suggested that a wider range of population should be involved in order to obtain a generalize theory in terms of healthy lifestyle among Malaysia's lecturers

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