

Effects of Gender, Food Habits and Physical Activity on Body Mass Index (BMI): An Empirical Study among a Selected Group of Medical Students

T.C.S. Weerakoon^a and W.M.T. Madujith^b

^a Department of Anatomy, Faculty of Medicine, Sabaragamuwa University of Sri Lanka, Belihuloya, Sri Lanka

^b Department of Food Science and Technology, Faculty of Agriculture, Sabaragamuwa University of Sri Lanka, Belihuloya, Sri Lanka
chamalika_sujeewanie@yahoo.com

According to World Health Organization (WHO) obesity is one of the major health issues and yet the most neglected among the populations world over. According to WHO recommendations BMI (Body Mass Index) is a simple, practical and epidemiological measure of identifying overweight and obesity among individuals. The aim of the present study was to determine the relationship between BMI and other factors such as gender, dietary habits, physical activity, geographical location and family history, among the selected group of medical students. The sample consisted of 157 healthy second year medical students, aged between 20 and 23 years, out of which 63 were male and 94 were female. The study was carried out to assess the obesity among the selected group of students by calculating BMI and to determine the factors correlated with BMI. In order to achieve the stated objective, we assessed the obesity among the selected group individuals by calculating BMI (kg/m²) and analyzed the factors correlated with BMI. The results are presented as mean±SEM. ANOVA test and t test were performed to determine the significant difference. All the statistical analyses were done using SPSS version 19.0 and Microsoft Excel 2007. Based on the BMI cutoff value of the WHO classification, 30.76% of the male students and 34.1% of the female students were found to be overweight or obese. The t- test results indicated that the mean BMI values for male and female were not significantly different (p- value =0.836). As per the ANOVA test results the mean BMI value of subgroups of non- vegetarians, regular consumers of meat, fish and egg, were significantly deferent (p value= 0.001). The mean values of the two groups, consuming fast food regularly and not consuming fast food that regularly were significantly different (p value=0.000). There was no significant deference between the two groups, consuming fruits regularly and not consuming fruits regularly (p-value= 0.061). Among two groups engaging in physical activities regularly and not engaging regularly, the difference in mean BMI values was statistically significant (p-value= 0.000). However there was no significant difference (p-value =0.115) between the urban and suburban groups. The mean BMI of the subjects in two groups i.e. parent's have at least one from the following disease (CHD, DM and HT) are not statistically significant (p value = 0.043). With the findings taken into account, BMI value was significantly affected by vegetarian diet, regular fast food consumption and engaging physical activity. However there was no significant deference between the mean BMI value and other factors such as gender, regular fruit consumption, geographical location and family history.

Keywords: body mass index, dietary habits, family history, geographical location and obesity