Knowledge, Attitude and Practices Regarding Obesity Among Medical Students of a University in North Karnataka

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***Abstract*—Chronic non-communicable diseases are gaining growing importance in both developed and developing countries. Obesity is a growing global epidemic and is the fifth leading cause of death worldwide. Medical students are especially prone to obesity due to their inactive lifestyle, lack of physical exercise, and erratic eating patterns, which puts them at high risk of acquiring obesity-related health issues.**

***Index Terms*—Obesity, Knowledge, Attitude, Practices, Medical students**

I. INTRODUCTION:

Obesity is an escalating public health epidemic.[1]
Sixty five percent (65%) world's population lives in regions where obesity and overweight cause higher mortality rates than undernutrition.[2]
It is generally believed that medical students possess superior knowledge of proper nutrition and a healthy lifestyle compared to non-medical students.[3]
Medical students were the primary focus of this study, as they are the future physicians, and if not well aware of obesity could set an undesirable example for the general population.
Hence this study was undertaken to assess knowledge, attitude and practices regarding obesity among medical students of an university in North Karnataka

II. MATERIALS AND METHODS

This was a cross-sectional study carried out amongst the medical college undergraduate students in Belagavi, Karnataka. Universal sampling method was utilized for sample size and sampling technique. The number of students enrolled was collected from college administration, that was around 800. Data was collected using a pre designed and pre tested questionnaire with Cronbach's alpha= 0.78. It contained sociodemographic variables and knowledge, attitude and practices of study participants about obesity. Data was collected after getting informed consent from the students. Ethical clearance was obtained from Institutional Ethics Committee. All the students who agreed to take part in the study were included and the students who did not agree and were absent on the day of data collection were excluded. Statistical Package for Social Science (SPSS) software was used for data analysis. The quantitative data was analysed using mean, median and standard deviation. The qualitative data was summarized as percentage and proportion. Multiple linear regression was carried out to assess the influence of socio-demographic variables on knowledge, attitude and practice scores. A scoring system was utilized for assessing the knowledge, attitude and practice. Knowledge score was categorised as above mean+SD as good knowledge (above 64.37), between mean-SD to mean+SD as moderate knowledge (54.03 to 64.37) and below mean-SD as poor knowledge (below 54.03). Attitude was categorised as positive (above mean, above 52) and negative (below mean, below 52). Practice was categorised as favourable (above mean, above 40) and unfavourable (below mean, below 40).

III. RESULTS

In this study, 506 students agreed to participate. A greater portion of the participants (304, 60.1%) were females and 39.9% were males. A larger part of the participants (478, 94.5%) was from urban residence. A greater part of the study participants (442, 87.4%) belonged to Hindu religion, a larger part 352, 69.6%

were from nuclear family, 283, 55.9% consumed mixed diet containing both vegetarian and non-vegetarian foods. In this study, amid the participants, 0.79% were overweight, 42.68% were obese, 43.08% belonged to normal BMI and 13.43% were underweight.

About 276 (54.5%) stated correctly that having excess fat around the abdomen is more dangerous, 416 (82.2%) stated correctly that obesity causes a number of debilitating disorders. Only 105(20.8%) mentioned that they were sure that they would reduce intake of sugary foods. Only 99(19.6%) were confident that they would reduce taking fried foods. 135 (26.7%) were certain that they would engage in some sort of physical activity. 56 (11.06%) mentioned that they eat in response to stress all the time, 166 (32.80%) stated that they take more than three snacks other than the usual meals of the day, 60 (11.85%) mentioned that they exercised everyday

IV. DISCUSSION

In this study, amid the participants only 11.50% had good knowledge, indicating a knowledge gap amid the medical students. This knowledge deficit might be due to lower priority given to obesity education in the medical curriculum due to time constraints. A study done by Mythily M R et. al, in Mandya, revealed that knowledge was insufficient.[4] This could be because of the reason that, the study was done in non-medical degree college students, in whose curriculum, obesity is not a routine discussion. Another study done by Martins C et. al, amid the final year medical students in Norway, revealed that students possessed insufficient knowledge[5], which is similar to our study.

In the present study, amid the participants, those from rural residence possessed lower knowledge compared with those from urban residence, Muslim and other religion participants possessed lower knowledge compared with those who belonged to Hindu religion. A study done by Jaganathan R et. al, showed that females possessed a greater knowledge score than the males.[6] A study done by Uzman H et. al, revealed that women and those who had physical activity possessed greater awareness on obesity.[7] A study done by Elsafi S et. al, showed that those aged greater than 24 years possessed more knowledge.[8] These findings from the above our study and the above studies indicate that those who are from urban background, females, those aged greater than 24 years possess a better knowledge.

In this study, amid the participants, those from a broken family possessed less attitude score in comparison to nuclear family, those who did not have physical education possessed less attitude score in comparison to who had physical education, those who were not involved in sports/games possessed less attitude score in comparison to who were involved in sports/games. Also, BMI was a significant predictor of attitude, for every unit increase in BMI, attitude scores increased by 0.26 units. A study done by Tozoglu, B et. al, showed, those who were doing sports activities had better perception about obesity.[9] A study done by Abdulmohsin M A et. al, revealed that females and those aged 18-20 years possessed a better attitude.[10] A study done by Jaganathan R et. al, revealed that BMI was a significant predictor of attitude.[6] These findings highlight that involvement in sports and BMI are important predictors of attitude of the students.

In this study, amid the participants, females possessed less practice score compared to males, those from fourth year possessed greater practice score compared to first year, those from joint family possessed less practice score compared to nuclear family, those with no family history of obesity possessed greater practice scores compared to those with family history of obesity. A study done by Hajir T et. al, showed, females possessed lesser practice scores than males which is similar to our study.[11]A study done by Jaganathan R et. al, showed that participants from urban and sub-urban regions scored higher practice scores than those from rural religions.[6] A study done by Elsafi Set. al, showed that those who were older scored greater practice scores than those who were younger which is similar to our study.[8]

In this study, there existed a positive correlation of 0.225 between knowledge and attitude, indicating a modest ,significant, association between the two variables with $p<0.001$, there was a weak, non - significant positive correlation of 0.032 between knowledge and practice, indicating a negligible association between the two variables with $p >0.05$, there was a positive correlation of 0.373 between attitude and practice , indicating a modest ,significant, association between the two variables with $p<0.001$. A study done by Elsafi Set. al, showed that correlation between knowledge and attitude was significant with $p<0.001$, between knowledge and practice ($p=0.029$),

between attitude and practice was significant with $p<0.001$.[8] These findings show that as knowledge increased, attitude also increased and as attitude increased, it led to a better practice.

V. CONCLUSION

As obesity continues to rise as a global epidemic, it is important to educate students about its health risks, offer them physical education, and encourage participation in sports

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