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Awareness Regarding Obesity and Healthy Lifestyle Practices among College Students in Mandya

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ABSTRACT

Introduction: Non communicable diseases are important among the adult population in developed and developing countries. Overweight & obesity are important risk factors for development of these NCDs. Healthy lifestyle measures when followed properly help in the prevention & control of disease and the risk factors causing it. Awareness about the disease & healthy lifestyle practices is the first step in prevention and management of NCDs. This study was taken up to assess the awareness about obesity and healthy lifestyle practices among college students in Mandya.

Methods: This cross-sectional study was conducted in October 2016 to November 2016 among 321 Bachelor of Commerce students in Mandya, by interview method using a semi-structured, pre-tested questionnaire.

Results: The study revealed that 205 (63.9%) knew the difference between obesity and overweight. 52 (16.2%) knew about the use of Body Mass Index for diagnosis of obesity. All the study participants had heard about healthy lifestyle. 260 (81.0%) knew that healthy lifestyle includes balanced diet & regular physical activity.

Conclusion: Awareness regarding obesity was poor. While the students knew about some healthy lifestyle practices, their knowledge on the whole was inadequate.

Keywords: Awareness, obesity, healthy lifestyle practices, college students.

INTRODUCTION

Chronic non communicable diseases (NCDs) are assuming increasing importance among the adult population in developed and developing countries. The lifestyles and behavioural patterns are changing rapidly, these being favourable for the onset of chronic diseases.[1]

Worldwide NCDs kill 38 million people every year. Cardiovascular deaths account for 17.5 million deaths annually, cancers 8.2 million, respiratory diseases 4 million and diabetes 1.5 million deaths annually; collectively these 4 diseases account for 82% of all NCD deaths. Tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets all increase the risk of dying from an NCD.[2]

India is experiencing a rapid health transition with a rising burden of NCDs causing significant morbidity and mortality both in urban and rural population with considerable loss in potentially productive years of life between 35-64 yrs.[1]

Among adults in India, prevalence of diabetes is 7.2%, hypertension is 22.9%, obesity is 4.0%, overweight is 18.9%, tobacco consumption 12.9% and decreased physical activity is 12.1%.[3]

An important way to reduce NCDs is to focus on lessening the common modifiable risk factors associated with these diseases like tobacco use, unheal-

thy diet & physical inactivity and alcohol consumption .[2]

Healthy lifestyle measures when followed properly will help in control of risk factors causing NCDs. Awareness about NCDs and their risk factors has an important role in prevention and management strategies.[5]

Various studies done in India have concentrated on awareness among individuals with diseases like either diabetes or hypertension or cancer and healthy lifestyle practices followed among the diseased.[6,7] Very few studies have been conducted regarding the awareness about NCDs and its risk factors among general population.[8,9,10] The studies which are done have focussed mainly on high school children or adults aged > 30 years. Studies are mostly done in urban areas than rural area. Giving guidance and educating degree college students will help in bringing modification in their own lives and also they disseminate information to others. Hence, the present study was taken up to assess the awareness of obesity and healthy lifestyle practices for its prevention and control among degree college students of Mandya.

OBJECTIVES

The study was conducted with objectives to assess the awareness about risk factors, diagnosis and complications of obesity among degree college students of Mandya and also to assess their awareness about healthy lifestyle practices and its advantages.

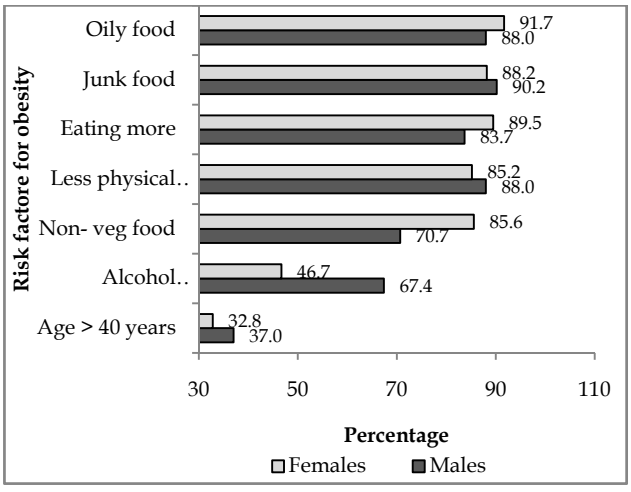
MATERIALS & METHODS

It was a cross sectional study conducted during the period of 1st October 2016 to 30th November 2016 at Shanti college, Mandya which was selected by purposive sampling method. It is a commerce degree college where 357 students are studying Bachelor of Commerce (B.Com). The necessary permission was taken from Institutional Scientific Committee, Institutional Ethics Committee and college Principal prior to study. The sample size was calculated to be 300 (p= 58%[11]). All the students who consented to participate in the study during the study period till the sample size was met, were included. After excluding who were not willing to participate or absent to the college, the total study participants were 321. All of them were taken for study. Data was entered into Microsoft Excel software and analysed using descriptive statistics like mean, proportion and inferential statistics like chi-square test. A pre-tested, semi-structured questionnaire was used for data collection by interview method after taking informed consent. The interview was conducted by the researchers individually for the participants and the interview time being 5- 8 min for each participant. The questionnaire consisted of 3 parts. The 1st part collected their sociodemographic details like their name, age, sex, year of study. The 2nd part collected information regarding their awareness on various aspects of obesity. Questions pertaining to etiology, symptoms, diagnosis and treatment of obesity were asked. The 3rd part collected information regarding their awareness on healthy lifestyle practices, adequate physical activity and balanced diet.

RESULTS

There were total 357 B.com students studying in Shanti College, among whom 321 agreed to participate in the study. 229 (71.4%) were females and 92 (28.6%) were males. Everybody had heard the term obesity (100%). The term "overweight" was heard by 294 (91.6%). While 205 (63.9%) students knew the difference between overweight and obesity, only 91 (44.4%) knew what the difference was. Among those who knew the difference, 36 (39.5%) thought obesity means more weight, 30 (33.0%) thought obesity has increased cholesterol, 25 (27.5%) thought obesity is disease while overweight is not a disease.

With respect to awareness regarding risk factors for obesity; 291 (90.6%) perceived eating oily food, 285 (88.8%) eating junk food, 281 (87.5%) eating more than required are the risk factors for developing obesity (refer figure 1). The difference between males and females regarding awareness of risk factors for obesity namely alcohol consumption and eating non-veg food were statistically significant ($p < 0.05$).



*The difference between males and females regarding awareness of risk factors for obesity namely alcohol consumtion and eating non-veg food were statistically significant ($p < 0.05$)

Fig 1: Bar graph showing awareness regarding risk factors for obesity among males and females

Table 1: Awareness regarding preventive measures to prevent obesity among males and females

Preventive measures	Males (%) (n= 92)	Females (%) (n= 229)	p- value
Regular physical activity	81 (88.0)	212 (92.6)	0.193
Eating less oily food	77 (83.7)	197 (86.0)	0.593
Avoiding junk foods	74 (80.4)	191 (83.8)	0.474
Yoga	79 (85.9)	183 (79.9)	0.213
Skipping meals	74 (80.4)	156 (68.1)	0.027
Low calorie food	65 (70.7)	147 (64.2)	0.269
Eating green leafy vegetables	57 (62.0)	151 (66.3)	0.438
Eating fruits	53 (57.6)	142 (62.3)	0.438
High fibre diet	55 (59.8)	133 (58.5)	0.779

The difference between males and females regarding prevention of obesity for skipping meals was statistically significant ($p < 0.05$)

Table 2: Table showing awareness regarding doing various activities which constitutes for physical activity among males and females

Physical activity	Males (%) (n= 92)	Females (%) (n= 229)	p-value
Walking	91 (98.9)	223 (97.4)	0.396
Cycling	87 (94.6)	218 (95.2)	0.814
Jogging	84 (91.3)	211 (92.1)	0.633
Swimming	89 (96.7)	198 (86.5)	0.007
Household chores	52 (56.5)	186 (81.2)	0.003
Gardening	74 (80.4)	164 (71.6)	0.103
Climbing stairs	64 (69.6)	167 (72.9)	0.545

*The difference between males and females regarding awareness of types of physical activity for swimming and doing household choreswas statistically significant ($p < 0.05$)

Students knowledge regarding problems arising due to obesity; 256 (79.8%) thought difficulty in walking as problem, 210 (65.4%) difficulty in climbing stairs, 158 (49.2%) thought they will not look beautiful, 147(45.8%) breathing difficulty as problem of being obese.

284 (88.4%) of students thought checking weight, 267 (83.2%) checking blood cholesterol level, 178 (55.6%) measuring waist and hip circumference, 52 (16.2%) calculating Body Mass Index (BMI) as means of diagnosing obesity.

168 (52.3%) of them thought obesity can be cured and 153 (47.7%) thought it can only be controlled. Out of study participants 80 (24.9%) of them knew that obesity leads to complications. Among them 64 (80.7%) thought it causes diabetes mellitus, 63 (79.1%) felt hypertension as a complication, 35 (43.7%) cardiovascular disease & stroke and 22 (27.5%) thought cancer as complication of obesity.

Awareness about treatment options for obesity was perceived to be doing physical activity by 107 (33.3%), avoiding junk and oily foods 64 (19.9%), taking tablets 36 (11.2%) and getting surgical treatment by 18 (5.6%) of participants.

Students awareness regarding prevention of obesity was found that 293 (91.3%) thought doing regular physical activity as a way of preventing obesity (refer table 1). The difference between males and females regarding prevention of obesity for skipping meals was statistically significant ($p = 0.027$). Male partcipants 74 (80.4%) wrongly thought skipping meal as preventive measure for obesity compared to 156 (68.1%) female participants.

All the study participants had heard about healthy lifestyle practices and majority 303 (94.4%) thought healthy lifestyle has a role to play in health. 260 (81.0%) of them knew healthy lifestyle includes balanced diet and regular physical activity.

With respect to knowledge about what constitutes healthy lifestyle; 310 (96.5%) thought regular physical activity, 285 (88.8%) eating more fruits and vegetables and 103 (32.0%) thought eating less quantity of food more frequently. Some had wrong knowledge that alcohol consumption 37 (11.52%), eating more quantity of food frequently 27 (8.4%) and smoking tobacco 14 (4.5%) constitutes healthy lifestyle. Walking constitutes for physical activity was felt by 314 (97.8%) (refer table 2). 89 (96.7%) of males thought swimming as physical activity while 198 (86.5%) females thought swimming as a physical activity; 52 (56.5%) males and 186 (81.2%) females thought doing household chores constitutes physical activity. The difference between males and females regarding awareness of swimming and doing household chores as physical activity was statistically significant ($p = 0.007$ and $p = 0.003$ respectively). However the participants had wrong knowledge that studying 164 (51.1%), driving car 66 (20.6%), watching television 56 (17.4%) and riding bike 54 (16.8%) also constitutes for physical activity.

139 (43.3%) knew the correct duration of adequate physical activity to be done i.e., doing moderate intensity physical activity $2^1/_2$ hours over 4 to 5 days in a week or doing vigorous intensity physical activity 1½ hours over 4 to 5 days in a week.

259 (80.7%) participants thought healthy lifestyle practices prevents diabetes mellitus, 254 (79.1%) thought hypertension, 204 (63.5%) heart disease,

138 (43.0%) stroke and 89 (27.7%) thought it prevents cancer..

DISCUSSION

NCDs are distributed across the world irrespective of the socio-economic status with increasing trend in low and middle income countries. Variation in awareness regarding these NCDs is seen between different age groups like high school and college, between those suffering from NCDs and those not suffering, and between urban and rural, which could be due to differences in accessibility of health care facilities, sedentary life style, unplanned urbanization, literacy status, etc. This study was conducted among B. Com students of Shanti degree college in Mandya to assess awareness regarding obesity and healthy lifestyle practices among college students. In our study population, female participants are more compared to males, which can be explained by the fact that more number of females opting for B. Com than males. In our study awareness regarding risk factors for obesity was found to be satisfactory. Majority knew the risk factors of obesity. Their knowledge regarding diagnosis and complications of obesity were low. Awareness regarding what constitutes healthy lifestyle practices were good, however awareness regarding various types of physical activity and the duration of doing physical activity were poor. Awareness was better among our study participants when compared to study by Anju Ade and others were they found 37.4% of high school students had awareness regarding NCDs risk factors and its prevention, similarly awareness was was not satisfactory in study by Divakaran and others conducted on school students [12,13] . This can be explained by the fact that college students are older and would have gained better knowledge when compared to high school students. Study conducted by Kusum SM found that awareness was poor among government school students of Davangere.[14] Study by Thippeswamy T and others showed that awareness regarding NCD's among diabetes patients was around 60- 70% which was similar to our study.[11]

Study done by Radha and others[15] on awareness regarding obesity among medical students were good compared to our study. This can be explained by the fact, medical students are exposed to teaching about obesity when compared to degree college students.

Health education was given to college students regarding risk factors, diagnosis and complications of obesity and about healthy lifestyle practices and its advantages.

CONCLUSION

Awareness regarding obesity was adequate in certain aspects, but they had wrong perceptions as well. While the college students knew about certain aspects of healthy lifestyle practices, their knowledge on the whole was inadequate. Health education should be provided to students regarding risk factors of NCDs and how to reduce the risk by following healthy lifestyle practices.

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