

Awareness Regarding Obesity and Healthy Lifestyle Practices among School Students in a Sub Urban Centre

Conștientizarea privind Obezitatea și Practicarea unui Stil de Viață Sănătos în Rândul Elevilor dintr-un Centru Suburban

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Abstract

Introduction: Obesity and non-communicable diseases (NCDs) have become the emerging pandemic of the 21st century and this has been because of the changes in the life style that has happened over the past three to four decades because of the modernization and cultural changes in the past few years. Obesity is an important risk factor for development of metabolic syndrome and other non-communicable disease. Healthy life style practices play an important role in prevention and control of the Non communicable diseases. 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 school students in sub urban parts of Chennai. *Methods:* This cross-sectional study was conducted in August 2019 to November 2019 among 244 school students of class 10 to class 12 in and around Saveetha Medical College, by interview method using a semi-structured, pre-tested questionnaire. *Results:* The study revealed that 105 (43.03%) knew the difference between obesity and overweight. 20 (8.2%) knew about the use of Body Mass Index for diagnosis of obesity. All the study participants knew about healthy lifestyle. 201 (82.3%) 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.*

Rezumat

Introducere: Obezitatea și bolile netransmisibile au devenit pandemia emergentă a secolului 21, acest lucru datorându-se schimbărilor în stilul de viață care au avut loc în ultimele trei până la patru decenii din cauza modernizării și schimbărilor culturale din

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ultimii ani. Obezitatea este un factor de risc important pentru dezvoltarea sindromului metabolic și a altor boli netransmisibile. Practicarea unui stil de viață sănătos joacă un rol important în prevenirea și controlul bolilor netransmisibile. Conștientizarea bolii și a practicării unui stil de viață sănătos este primul pas în prevenirea și gestionarea bolilor netransmisibile. Acest studiu a fost efectuat pentru a evalua gradul de conștientizare cu privire la obezitate și practicarea unui stil de viață sănătos în rândul elevilor din zonele suburbane ale orașului Chennai. *Metode:* Acest studiu transversal a fost realizat în perioada august 2019 – noiembrie 2019 în rândul a 244 de elevi din clasa a 10-a până la clasa a 12-a ai Colegiului Medical Saveetha și din zonele învecinate, prin metoda interviului, folosind un chestionar semistructurat, pre-testat. *Rezultate:* Studiul a arătat că 105 elevi (43,03%) cunoșteau diferența dintre obezitate și supraponderalitate. 20 elevi (8,2%) știau despre utilizarea indicelui de masă corporală pentru diagnosticarea obezității. Toți participanții la studiu știau despre stilul de viață sănătos. 201 elevi (82,3%) știau că stilul de viață sănătos include o dietă echilibrată și activitate fizică regulată. *Concluzie:* Conștientizarea cu privire la obezitate a fost slabă. În timp ce elevii știau despre unele practici de stil de viață sănătos, cunoștințele lor în general erau inadecvate.

Cuvinte cheie: conștientizare, obezitate, practici de viață sănătoasă, elevi de liceu.

Introduction

Obesity and non-communicable diseases (NCDs) have become the next big pandemic that is going to affect the mankind in the near future due to the changes in the lifestyle and cultural practices which have been brought about by the urbanization and modernization [1, 2, 3, 4]. There has been a dramatic advance in the technology which has contributed significantly in reducing the physical activities of the humans and thus resulting in a sedentary lifestyle. In the current scenario, NCD and metabolic syndrome has emerged as one of the leading causes of mortality. Worldwide NCDs kill close to 40 million people every year [2, 3, 4]. 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 [2, 3, 4]. Behavioral problems like substance abuse, physical inactivity and unhealthy diet increases the risk of dying from an NCD. 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. 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%. An important way to reduce NCDs is to focus on lessening the common modifiable risk factors associated with these diseases like tobacco use, unhealthy diet & physical inactivity and alcohol consumption [5, 6, 7].

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. 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 [5, 6, 7, 8, 9].

Very few studies have been conducted regarding the awareness about NCDs and its risk factors among general population [10]. Giving guidance and educating degree school students will help in bringing modification in their own lives and also, they disseminate information to others [11]. Hence, the present study was taken up to assess the awareness of obesity and healthy lifestyle practices for its prevention and control among school students in and around Saveetha Medical College.

Methods

Study design: Descriptive cross-sectional study

Study population: School students between classes 10 to 12

Study period: August 2019 to November 2019

Sample size: 244 (Convenient sample size)

Aim of the study

To determine the awareness, knowledge about obesity and healthy lifestyle practices

Methodology

The study was a cross sectional study conducted during the period of 1st August 2019 to 30th November 2019 at Schools located in and around Saveetha Medical College. The necessary permission was taken from Institutional Scientific Committee, Institutional Ethics Committee and School Principals prior to study. The sample size was a convenient sample size. All the students who consented to participate in the study were included. Those not willing were excluded. The total study participants were 244.

Data was entered into Microsoft Excel software and analyzed 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, Class. 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 was a total of 278 students, among whom 244 agreed to participate in the study. 101 (41.39%) were females and 143(58.61%) were males.

Knowledge about terms like obesity and overweight and risk factors associated with it

Everybody had heard the term obesity (100%). The term “overweight” was heard by 219 (89.75%). While 168 (68.9%) students knew the difference between overweight and obesity, only 74 (30.32%) knew what the difference was. Among those who knew the difference, 36 (48.64%) thought obesity means more weight, 24(32.43%) thought obesity has increased cholesterol, 14 (18.9%) thought obesity is disease while overweight is not a disease. With respect to awareness regarding risk factors for obesity; 226 (92.6%) perceived eating oily food, 215 (88.11%) eating junk food, 211 (86.47%) eating more than required are the risk factors for developing obesity (refer to figure 1).

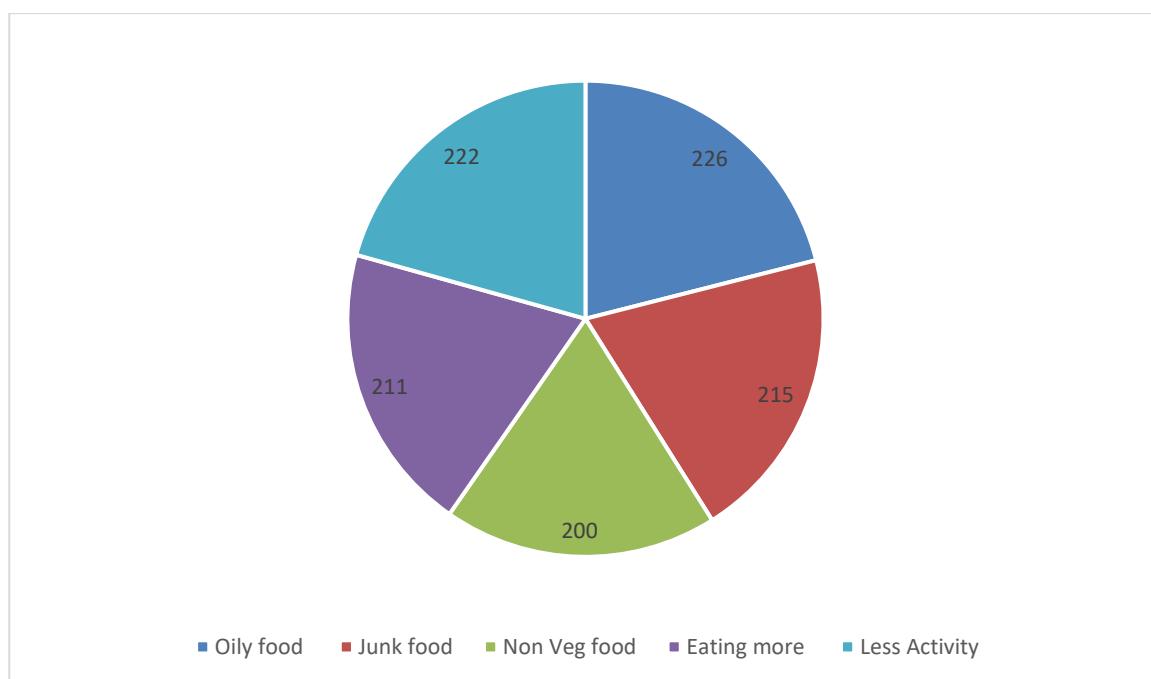


Figure 1. Risk Factors for Obesity

Students' knowledge regarding problems arising due to obesity

209 (85.65%) thought difficulty in walking as problem, 190 (77.8%) difficulty in climbing stairs, 138 (56.5%) thought they will not look beautiful, 127 (52.04%) breathing difficulty as problem of being obese. 214 (87.7%) of students thought checking weight, 227 (93.02%) checking blood cholesterol level, 168 (68.88%) measuring waist and hip circumference, 35 (14.34%) calculating Body Mass Index (BMI) as means of diagnosing obesity. 148 (60.06%) of them thought obesity can be cured and 138 (56.55%) thought it can only be controlled.

Table 1: Awareness regarding preventive measures to prevent obesity

| Preventive measures | N (%) |
|-------------------------------|-------------|
| Regular physical activity | 223(91.3%) |
| Eating less oily food | 191(78.27%) |
| Avoiding junk foods | 188(77.04%) |
| Yoga | 167(68.44%) |
| Skipping meals | 79(32.37%) |
| Eating green leafy vegetables | 199(81.55%) |
| Eating fruits | 187(76.62%) |
| High fibre diet | 180(73.77%) |

Out of study participants 68(27.9%) of them knew that obesity leads to complications. Among them 44 (64.7%) thought it causes diabetes mellitus, 32 (47.05%) felt hypertension as a complication, 25 (36.7%) cardiovascular disease & stroke and 18 (26.5%) thought cancer as complication of obesity.

Awareness about treatment options for obesity was perceived to be doing physical activity by 107 (43.85%), avoiding junk and oily foods 54 (22.13%), taking tablets 23 (9.4%) and getting surgical treatment by 13 (5.3%) of participants.

Awareness about prevention of Obesity

Students' awareness regarding prevention of obesity was found that 223 (91.3%) thought doing regular physical activity as a way of preventing obesity (refer to table 1). All the study participants had heard about healthy lifestyle practices and majority 225 (92.21%) thought healthy lifestyle has a role to play in health. 214(87.70%) of them knew healthy lifestyle includes balanced diet and regular physical activity.

Knowledge about what constitutes healthy lifestyle

144 (59.01%) knew the correct duration of adequate physical activity to be done i.e., doing moderate intensity physical activity 2½ 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. 219 (89.7%) participants thought healthy lifestyle practices prevents diabetes mellitus, 205 (84.1%) thought hypertension, 186 (76.22%) heart disease 128 (52.04%) stroke and 66 (27.05%) thought it prevents cancer.

Table 2: Knowledge regarding what constitutes physical activity

| Measures | N (%) |
|------------------|-------------|
| Walking | 213(87.3%) |
| Climbing stairs | 188(77.04%) |
| Cycling | 195(79.94%) |
| Jogging | 166(68.03%) |
| Swimming | 83(34.01%) |
| Gardening | 88(36.05%) |
| Household chores | 225(92.2%) |

Discussion

NCDs are distributed all over the world irrespective of the socio-economic status and are found to be showing an increasing trend in low- and middle-income countries. There is Variation in awareness regarding these NCDs among different age groups and among urban and rural people, among different socioeconomic groups and also among those affected and not affected by NCDs. These variations are largely because of the knowledge, heath care facilities available to them, media coverage, literacy status etc. This study was conducted among school students in and around Saveetha Medical College to assess awareness regarding obesity and healthy lifestyle practices among college students. 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 previous studies done by Divakaran and Anju Ade [12, 13]. Study conducted by Kusum SM found that awareness was poor among government school students of Davangere but in our study the awareness if found to be higher probably because of the media attention in the recent years and campaigns by government using social media and radio in the recent years [14].

Conclusion

Awareness regarding obesity was adequate in certain aspects but further efforts need to be taken to enhance the knowledge and attitude towards obesity prevention and health promotion. 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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