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Self-Reported Obesity Status of School Teachers Teaching In Various Schools of District Panchkula, Haryana, India

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ABSTRACT

INTRODUCTION: Being overweight and obese are a major concern across the globe, as it impact one's quality of life.
AIM: To assess the self-reported Obesity status of private school teachers teaching in various schools of district Panchkula, Haryana, India
MATERIALS AND METHOD: A Descriptive, cross sectional study, questionnaire based study was conducted among school teachers of Panchkula District, Haryana, India using self-reported 10 item-questionnaire. The data was duly entered into Microsoft excel wherein descriptive statistics were applied and then, regression analysis to find differences if any, was applied using SPSS version 21.0 (IBM Corp, Armonk NY)
RESULTS: Of a 500 questionnaires distributed, 417 were fit for data entry (response rate 83.4%) with a majority of the study subjects being females (220,52.7%), and 97.1% of the teachers taught in private schools. The overall prevalence of obesity 15.1% was reported based on self-reported BMI. A non-significant p value of .006.(Regression analysis) between males and females with respect to their self-reported BMI was observed.
CONCLUSION: Efforts are required to be directed to prevent obesity among schoolteachers, who act as role-models for their students.

KEYWORDS: Obesity, School teachers, BMI.

INTRODUCTION

Being overweight and obese, apart for being major public health concerns, impact physiological, psychological health, and are predisposing factors for various diseases and/or cancers. As per the World Health Organization (WHO), obesity is very common and is usually neglected in developed as well as developing countries.[3] It was documented in the WHO World Health Statistics Report (2012) that across the globe, alarmingly, one in every six adults is obese and nearly 2.8 million individuals die each year due to overweight or obesity.[4] Body Mass Index(BMI) is a useful tool used to monitor population trends in overweight and obesity from both a health care intervention as well as an economic standpoint and is calculated as weight to squared height (kg/m2).

It is used extensively to categorize population as underweight, overweight, and obese individuals as it is easy, reproducible, and inexpensive to use.[5] BMI has an added advantage of predicting the risk of morbidity and mortality among populations and make them aware of its impending consequences, if left unchecked.[2]

For large population based studies, a cost effective measure is record self-reported BMI values various authors and hence, have been used in various by various authors.[6-8] In India, authors document a rising trend in the prevalence of obesity.[9-12] Literature search reveals no information regarding the obesity status of private school teachers of district Panchkula, and hence, this study was carried out to assess the self-reported Obesity status of private school teachers teaching in various schools of district Panchkula, Haryana, India.

MATERIALS AND METHODS

A Descriptive, cross sectional study, questionnaire based study was conducted among school teachers of Panchkula District, Haryana, India. It was revealed that Panchkula district is divided into four blocks (Barwala, Pinjore, Morni, Raipur Rani) and had a total of 120 registered schools (data was obtained from the official government website of Panchkula district). [13,14]

Out of the schools present in each blocks, a minimum of six schools in each block were included to obtain a statistically significant difference. For selection of an adequate sample, an assumption that 75% of the teachers had normal BMI was taken. Precision was set at 5%. For p value 0.05% and 80% power of the study, the expected sample size was 386 teachers. However, to include a large sample so that discrepancies in filling of the form and or unwillingness/absence of the teacher can be eliminated, a total of 500 teachers we selected to be a part of the study.

After obtaining and ethical clearance from the institute from which the study was undertaken, Due permission was taken from the principals of the respective schools. Data was collected from 1st January 2016 to 31st March 2016. Teachers present were included in the study and those unwilling to participate in the study or were absent on the day of conduction of the study, were excluded.

Prior to the beginning of the study, it was desirable that an equal number government schools in each block be included (three in each block). However, only two schools consented to inclusion in participation of the present study and are included in the main sample.

Data was collected through a 10 item Questionnaire that was distributed to the teachers and seeked their demographic details as well as self-reported values on height and weight. It approximately took five minutes per teacher to fill the questionnaire. The questionnaire was kept short keeping in mind the paucity of time faced by the teachers. On the day of the examination (discussed earlier with schools authorities), all the teachers were called in a room on a specified time and were explained regarding the aims and objectives of this study.

The data was duly entered into Microsoft excel wherein descriptive statistics were applied and then, regression analysis to find differences if any, was applied using SPSS version 21.0 (IBM Corp, Armonk NY)[15]

RESULTS

Of a 500 questionnaires distributed, 417 were fit for data entry (response rate 83.4%). It was found that majority of the study subjects were females (220,52.7%), and 97.1% of the teachers taught in private schools. Also majority of the study subjects were formed by middle class teachers (122, 29.3%) followed by class 10th teachers (116,27.8%) (Table 1).

The overall prevalence of obesity 15.1% based on self-reported BMI. However, these rates varied between males and females, with males(47,74.6%) being more affected by obesity as compared to their female counterparts. (Table 2.).

Meanwhile, Regression analysis of both males and females with respect to their self-reported BMI revealed a non-significant p value of .006. (Table 3).

DISCUSSION

In the present study, it was found that a majority of teachers were females (220,52.7%). From a ratio of 20 women teachers per 100 men teachers (1950s), interestingly, the ratio has increased to 90 women teachers per 100 men teachers. In urban India, schools have just 5-10% male teachers with such changes being seen after liberation.(Post 1991) as government policies increased the enrollment of girls in school and decided to have at least one female teacher in every primary school. In addition, teaching is also considered to be a suitable profession for women because it is less demanding having shorter hours than many other jobs and household chores can also be easily managed by them.[15]

Overall, obesity was seen in 15.1% teachers based on self-reported BMI with males(47,74.6%) being more affected by obesity as compared to their female counterparts. This is partly true as males have been seen to be more obese as compared to females in India. [16]

This study is prone to underreporting of data as it is a self- reported study design. However, as little or scarce data is available regarding the obesity of school teachers in Panchkula District of India, this study could act as an exploratory study and provide a base for future research.

CONCLUSION

It is advised that further research be conducted to gain more data and plan programs to prevent

obesity among school teachers, who are the idols for India's future i.e. the children of today.

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LEGENDS

CHARACTERISTIC	(n,%)
• Males • Females Total	197(47.3) 220(52.7) 417(100)
• Public School Teachers • Govt School Teachers Total	405(97.1) 12(2.9)
• Primary Class Teachers • Middle Class Teachers • Upto 10th Class Teachers • Upto 12th Class Teachers Total	105(25.2) 122(29.3) 116(27.8) 74(17.7)

Table 1. Demographic Characteristics of the teachers

CHARACTERISTIC	MALES (n,%)	FEMALES (n,%)	TOTAL
GENDER			
BMI a) Underweight (≤18.4) b) Normal (18.5-22.9) c) Overweight (23-24.9) d) Obese (≥25) -63	 44(22.3) 49(24.9) 57(29.0) 47(23.8)	 58(26.4) 75(34.1) 71(32.2) 16(7.3)	 102(24.4) 124(29.8) 128(30.7) 63(15.1)
TOTAL	**197(47.3)**	**220(52.7)**	**417(100)**

Table 2. Self-reoprted BMI Values of the teachers

CHARACERSITIC	Coefficient (β)	SE	t value	p value
MALES				
FEMALES	.603	.002	157.63	.006(NS)

Table 3. Regression analysis of the self-reported BMI of the teachers