ORIGINAL RESEARCH

A STUDY OF HEALTH STATUS OF BANK EMPLOYEES IN A CITY WITH SPECIAL REFERENCE TO OBESITY

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ABSTRACT

Background: "Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity". It also includes the ability to lead a "socially and economically productive life." Obesity is a cluster of non-communicable diseases which creates an enormous socioeconomic and public health burden in poorer countries. That is why obesity is now termed as "New World Syndrome". Aim- To study health status of Bank Employees in a City with special reference to Obesity. Objectives- 1.To study prevalence of generalized obesity. 2. To study association between prevalence of generalized obesity with socio-demographic factors in Bank Employees.

Materials and Methods: A cross-sectional study carried out among bank employees in Ambajogai city of Maharashtra from August 2016 to December 2018 in 236 bank employees.

Results and conclusion- Overall 43.6% of bank employees had generalized obesity. The prevalence of obesity by waist-hip ratio was 46.6%. The prevalence of overweight was 14.4%. The prevalence of generalized obesity increased significantly with increasing age (p=0.029). Generalized obesity was more prevalent in female employees than male employees but no significant association found. The prevalence of generalized obesity was significantly associated with factors such as age, post of bank employees, history of addiction and mixed type of diet. The factors like sex, religion, marital status, socioeconomic status, and education were not statistically associated with generalized obesity.

Keywords: Health status, Bank Employees, a City, Obesity.

INTRODUCTION

"Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity." It also includes the ability to lead a "socially and economically productive life."[1] Health is multifactorial. The Health influencing factors present in both within the individuals and externally in the society in which he or she lives. Thus the health of individuals considered to be the result of interactions of genetic factors and environmental factors. These interactions may be health promoting or deleterious.[1]

Obesity is a cluster of non-communicable diseases which creates an enormous socioeconomic and public health burden in poorer countries. That is why obesity is now termed as "New World Syndrome."[2] The lifestyle has promoted a shift from infectious diseases to non-communicable diseases which is a major driver of morbidity and mortality.[3]

In 2014 World Health Organization report indicates that 39% and 13% of people of 18 years and above were overweight and obese respectively.[4] More people are died because of obesity and overweight as compared to underweight in many countries and these countries contribute to 65% of global population.[5] Addo P, etal (2015),[6] conducted a cross-sectional study among 180 bank employees in Accra using the World Health Organization's STEPS (STEP wise approach) instrument for non-communicable disease risk factor surveillance in which they computed BMI for each respondent. It was found that the overall prevalence of obesity and overweight among the bank employees was 17.8 % and 37.8 % respectively. Hirani S, etal (2016),[7] Conducted cross-sectional study among bank employees (N=240) of Aurangabad city, Maharashtra. As per the BMI classification for the Asian population, the prevalence of overweight and obesity among bank employees was found to be 47.9% and 29.6% respectively.

Need for the Study

The Banking industry is an emerging industry in India. Banks are basically human organizations. They employ large numbers of people of the society so as to fulfill their organization and national objectives. Technology and human capital in the banking industry at its peak level to give services to human society. Net banking, core banking, e-payment; e-statement, online share trading etc. have revolutionized banking industry. Considering the large size of the banking sector, the human resource value of the people working and employed in the banking sector, this study was conducted to study health status of Bank Employees in a City with special reference to Obesity.

MATERIALS & METHODS

Study design: A Cross-sectional study.

Study setting: The study was carried out among bank employees in Ambajogai city (Maharashtra).

Ethical considerations: Ethical committee approval was obtained from the Institutional ethical committee prior to the start of the study.

Study duration: The present study was carried out from August 2016 to December 2018.

Study population: All Employees of all banks in Ambajogai city who were present on the days of the interview were enrolled in the study as per following inclusion and exclusion criteria.

Inclusion criteria:

a. All bank employees willing to participate in the study.

b. All bank employees in the age group of 21-60 years were included.

Exclusion criteria:

a. Bank employees absent on the days of the interview.

b. Employees not willing to participate in the study.

c. Pregnant employees.

d. Bank employees working for duration less than one year.

Sample Size: All the employees of all the banks in Ambajogai city of Maharashtra according to inclusion and exclusion criteria were included in this study. Thus out of 260 bank employees working in various banks of a city, 236 bank employees were enrolled in the study. 24 bank employees were either absent on the fixed day of the interview or not given consent for the study.

Data collection: The purpose of the study was explained to the respective Bank Managers and permission for the study was taken. Before starting the data collection process, a good rapport was built with the bank employees by giving a short introduction and with the help of their bank manager.

The study participants were interviewed by the investigator and data was collected using pre-designed and pre-tested proforma which includes socio-demographic factors such as bank sector [government, co-operative, private], age, sex, religion, bank employees post, socioeconomic status, lifestyle factors such as dietary habits[9], addictions; occupational factors such as job responsibility. Socio-economic status was determined by Modified Kuppuswamy classification of the family.[10]

Data entry: Collected data was entered into Microsoft-Excel 2010 worksheets and coded appropriately.

Data analysis: Data was analysed using Microsoft Excel 2010, trial Version-20 of SPSS. Descriptive statistics (percentage, mean, standard deviation) were used to describe the data appropriately. Chi-square test was applied to find the association between different variables.

12. Reference Citation,:[8] Vancouver system of listing and citing of reference was used. The references were numbered according to their appearance in the text and listed accordingly.

RESULTS

A. Prevalence of generalized obesity* in Bank Employees.

Table-1. Prevalence of generalized obesity in Bank Employees.		
Grades	Bank Employees	
	Frequency	Percentage (%)
Underweight	10	4.2
Normal	89	37.7
Overweight	34	14.4
Obese	103	43.6
Total	236	100

*BMI classification for the Asian population was used for defining generalized obesity.

B. Association of generalized obesity with socio-demographic factors in Bank Employees.

Table-2. Association of generalized obesity with socio-demographic factors.

Variables		Generalized Obesity		Total	Chi-square, p-value
		Present (%)	Absent (%)		
Age	21-30	38(35.8)	68(64.2)	106(44.9)	x^2=9.009 p=0.029
	31-40	26(44.1)	33(55.9)	59(25.0)	
	41-50	18(46.2)	21(23.8)	39(16.5)	
	51-60	21(65.6)	11(34.4)	32(13.6)	
Sex	Male	83(41.9)	115(58.1)	198(83.9)	x^2=1.487 p=0.223
	Female	20(52.6)	18(47.4)	38(16.1)	
Religion	Hindu	90(47.4)	100(52.6)	190(80.5)	x^2=5.498 p=0.063
	Muslim	04(28.6)	10(71.4)	14(5.9)	
	Buddhist	09(28.1)	23(71.9)	32(13.6)	
Marital status	Married	88(46.6)	101(53.4)	189(80.1)	x^2=3.283 p=0.070
	Unmarried & others	15(31.9)	32(68.1)	47(19.9)	
Socio-economic status	Upper (I)	84(48.0)	91(52.0)	175(74.2)	x^2=5.433 p=0.066
	Upper Middle (II)	23(33.4)	26(66.7)	39(16.5)	
	Lower Middle (III)	06(27.3)	16(72.7)	22(9.3)	
Education	Below Graduate	07(23.4)	23(76.6)	30(12.7)	x^2=5.433 p=0.066
	Graduate & above	96(46.6)	110(53.4)	206(87.3)	
Post of Bank Employees	Managers	29(69.0)	13(31.0)	42(17.8)	x^2=20.4 p=0.0001
	Officers	20(57.1)	15(42.9)	35(14.8)	
	Clerks	44(35.8)	79(54.2)	123(52.1)	
	Attendants	10(27.8)	26(72.2)	36(15.3)	
History of Addiction	Present	56(51.9)	52(48.1)	108(45.8)	x^2=5.454 p=0.019
	Absent	47(36.7)	81(63.3)	128(54.2)	
Type of Diet	Vegetarian	29(31.5)	63(68.5)	92(39.0)	x^2=9.008 p=0.002
	Mixed	74(51.4)	70(48.6)	144(61.0)	

DISCUSSION

This cross-sectional study was carried out among bank employees in Ambajogai city of Maharashtra from August 2016 to December 2018 in 236 bank employees to study health status of Bank Employees in a City with special reference to Obesity.

[Table-1] showed that out of a total 236 bank employees enrolled in this study, 14.4% and 43.6% bank employees were found to be overweight and obese respectively whereas 37.7% were in normal BMI range and only 4.2% bank employees were underweight. Sonaje JC, etal (2018),[11] in western Maharashtra reported that 66.8% of bank employees were obese. Hirani S, etal (2016),[7] in Aurangabad city, Maharashtra found that the prevalence of overweight and obesity among bank employees was found to be 47.9% and 29.6% respectively as per BMI classification for the Asian population. Nagammanavar R, etal (2015),[12] found that the prevalence of obesity bank employees was 37.6%. Addo P, etal (2015),[6] found that the overall prevalence of obesity and overweight among the bank employees was 17.8 % and 37.8 % respectively.

[Table-2] showed that the age specific prevalence of generalized obesity among bank employees was found to be more in 51-60 years age group (65.6%) as compared to 21-30 years age group (35.8), 31-40 years (44.1%), and 41-50 years (46.2%). The difference in age wise distribution of generalized obesity in bank employees were found statistically significant (p=0.029), similar results was found in Addo P, etal (2015),[6] in their study that the age of bank employees ranged from 19 to 54 years. The difference in age wise distribution of generalized obesity was found statistically significant (p = 0.001). In the present study, among male bank employees, 41.9% had generalized obesity whereas out of 38 female employees, 52.6% had generalized obesity. There was no significant association between sex and generalized obesity in bank employees (p=0.223). Similar findings were observed in Addo P, etal (2015),[6] in which they found that 51.1% were male bank employees whereas 48.9% were female bank employees. Out of 92 male and of 88 females bank employees in the study, 54.4% and 56.8% were overweight/obese and no significant association was found (p=0.74). Contrast findings were found in studies by Assudani, etal (2014),[13] that 75.79% were male and 24.20% were female bank employees. The prevalence of overweight and obesity among male bank employees was 20% and 43% respectively whereas it was 17% and 34% among female bank employees. In this study, the prevalence of generalized obesity among Hindu, Muslim and Buddhist bank employees was 47.4%, 28.6%, and 28.1% respectively. The association between generalized obesity and religion was found statistically not significant (p=0.063). Similarly Hirani S, etal (2016),[7] in Aurangabad city, Maharashtra noted that the prevalence of obesity among Hindu, Muslim, Buddhist, and others were 30.4%, 14.3%, 35.1% and 13.3% respectively. No significant difference was found in the distribution of generalized obesity among bank employees with respect to religion. The prevalence of obesity among married bank employees was 46.6% whereas among unmarried and others it was 31.9%. There was found no significant association between marital status and generalized obesity (p=0.070). In the present study, the prevalence of generalized obesity among bank employees with upper socioeconomic status was 48.0% whereas it was 33.4% and 27.3% in bank employees with Upper Middle socioeconomic status and in bank employees with Lower Middle socioeconomic status respectively. There was found no significant association (p=0.066). Similarly Hirani S, etal (2016),[7] found that 33.3%, 35%, and 16.7% bank employees had generalized obesity in upper class, upper middle class and lower middle class socioeconomic status were respectively. No significant difference was observed (p=0.086). The prevalence of generalized Obesity in this study was more in bank employee who educated to graduation and more (46.6%) as compared to those educated less

than graduation (23.4%). There was found no statistically significant association (p=0.066). Addo P, etal (2015),[6] in their study found that 2.2%, 3.9%, 12.2%, and 81% bank employees had none, junior high, senior high and tertiary educational level respectively. The prevalence of either overweight or obese among these educational levels was 50%, 57.1%, 72.2%, and 53.1% respectively (p=0.38). Above studies shows that obesity was more in higher educated bank employees. This may be due to factors like higher post held banks, physical inactivity, higher socioeconomic status etc. Out of total bank employees, 17.8%, 14.8%, 52.1%, and 15.3% bank employees were working as Managers, Officers, Clerks and Attendants respectively. The prevalence of generalized obesity among Managers, officers, clerk, attendant was 69.0%, 57.1%, 35.8% and 27.8% respectively. The association between post of bank employees and generalized obesity was found statistically significant (p=0.000). Hirani S, etal (2016),[7] in a cross-sectional study found the prevalence of generalized obesity among managers, officers, clerks, and attendants were 39.6%, 27.3%, 34.1% and 18.2% respectively. No significant difference was found between the post of bank employee and the prevalence of generalized obesity (p=0.206). The finding of the above study was partially similar with findings of the present study. Out of 108 bank employees with history of addiction, 51.9% of bank employees had obesity whereas out of 128 employees without history of addiction, 36.7% had obesity. The significant association was found between history of addiction and obesity (p=0.019). We could not found such studies showing distribution of Generalized Obesity in Bank employees according to history of addiction. Out of 92 vegetarian bank employees, 29(31.5%) employees had obesity whereas out of 144 mixed diet employees had 74(51.4%) had obesity. There was a significant association between the type of diet and generalized obesity in bank employees (p=0.002).

CONCLUSION

Overall 43.6% of bank employees had generalized obesity. The prevalence of obesity by waist-hip ratio was 46.6%. The prevalence of overweight was 14.4%. The prevalence of generalized obesity increased significantly with increasing age (p=0.029). Generalized obesity was more prevalent in female employees than male employees but no significant association found. The prevalence of generalized obesity was significantly associated with factors such as age, post of bank employees, history of addiction and mixed type of diet. The factors like sex, religion, marital status, socioeconomic status, and education were not statistically associated with generalized obesity.

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