



Health Status of Bank Employees in Belagavi City of Karnataka- A Cross Sectional Study

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ABSTRACT

Background: Recent decades have witnessed tremendous advancements in health and survival throughout the world. The major risk factors of non communicable diseases attributed to mortality are well prevalent among bank employees, affecting across all social and income groups. Hence this specific occupational group of bank employees who represent the subset of population at risk to develop chronic diseases and stress related adverse health effects was selected for the study. The objective of the study was to assess the health status of bank employees and to know lifestyle factors affecting the health of bank employees.

Methodology: The study was conducted among 410 bank employees from the banks which were selected using random number technique in Belgaum district. The data on socio demographic variables, risk factors, physical measurement were done followed by estimation of Haemoglobin and Random blood sugar.

Results: In this study, 72.7% of the subjects had three or more risk factors for non communicable diseases. The prevalence of Anaemia in this study was 34.15%. Prevalence of hypertension and diabetes was 32.9% and 17.32% respectively.

Conclusions: Majority of the bank employees were apparently healthy and most of them were having work related risk factors.

Key-words: Lifestyle factors, chronic diseases, bank Employees

INTRODUCTION

Health is the greatest gift; it is the general condition of a person's mind, body and spirit usually meaning to be free from illness, injury or pain. To enjoy a good health, bring true happiness to one's family, to bring peace to all, one must first discipline and control one's own mind.

Recent decades have witnessed tremendous advancements in health and survival throughout the world. Historically, the demographic transition has led to changes in the populations from being characterized by high fertility and mortality to low fertility and mortality over a period of time.¹

At the onset of 20th century, along with demographic change, the economic transition has occurred following urbanization and industrialization. With economic transition, a number of sector jobs have risen in both developed and developing countries. Most of the jobs have become sedentary, presenting different types of health problems. As the lifestyle and working patterns have changed, the disease pattern has also been changed drastically. Non communicable diseases and occupation related health problems have replaced communicable diseases including maternal and perinatal morbidities.²

The sedentary type of work pattern and mentally stressful job at bank, has affected the lifestyle of the

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employees who are prone to acquire the risky behaviour. Researchers have found that, a person who does the stressful job has the tendency to do things which are bad for health, such as smoking, drinking alcohol and follow unhealthy dietary habits, rather than people who enjoy their work to overcome the boredom at the workplace. This lifestyle related risk factors make them more vulnerable to acquire non communicable diseases, especially cardiovascular disease, stroke and Type 2 diabetes mellitus.

The major risk factors of non communicable diseases attributed to mortality are high blood pressure (13%), tobacco use (9%), high blood glucose (6%), physical inactivity (6%) and overweight, obesity (5%), which are well prevalent among bank employees, affecting across all social and income groups.³ Sharp rise in lifestyle diseases coupled with occupational stress and the working pattern, along with limited preventive health care, threatens India's future growth prospects.

Working pattern has a causal relationship with psychological and physical health of workers.⁴ Bankers with their sedentary lifestyle, relatively better socio-economic condition, highly stressful job are subject to the risk of chronic diseases including cardiac, neurological, musculoskeletal disorders and other stress related adverse health conditions.

Though the medical benefits are provided to this sector there are no health promotion and preventive measures taken, especially towards their occupational conditions. Hence this specific occupational group of bank employees who represent the subset of population at risk to develop chronic diseases and stress related adverse health effects was selected for the study to know their health status, lifestyle factors and occupational stress so as to suggest some interventional measures towards their health promotion and prevention of occupational related morbidities. The present study was conducted with the objective to assess the health status of bank employees and to know lifestyle factors affecting the health of bank employees.

MATERIALS AND METHODS

This is a cross-sectional study conducted among bank employees in Belgaum district from 1st May to 30th October 2019. Approval was obtained from the Institute Ethics Committee before the commencement of the study. Considering prevalence of diabetes as 21.3% amongst bank employees according to the study conducted in Belagavi city⁵ and absolute error 4%, minimum required sample size was found to be 402. We have included and covered 410 bank employees as per sample size calculation.

At the first step, all the nationalized banks in Belgaum district were listed. Banks were selected by simple random technique. Each branch comprising approximately 6-10 employees. To eliminate the selection bias and to minimise the error an average

unit size of 6 was taken. Considering the unit size as 6, 67 banks needed to be selected to get the sample size of 402. These 67 banks were selected randomly by using random number technique and 48 banks were included in the study to reach our sample size.

Prior permission was obtained from the concerned bank managers before initiating the study. After obtaining informed consent from the subject, the bank employees from the selected banks were interviewed and examined. The data was collected by direct interview method and clinical examination was done to assess the health status and detect risk factors.

The Questionnaire consisted of five sections:

1) Information on socio demographic variables like age, sex, occupation, education, work experience, Physical Activity etc. by direct interview method.

Physical activity has been classified as vigorous [physical exercise like manual work per se or sports activity or other physical exercise for >3 h/day], moderate [1-3 h/day], mild [<1 h/day], sedentary [nil physical activity],

2) Information on risk factors like history of smoking, chewing tobacco, alcohol

Smoker is someone who smokes any tobacco product, either daily or occasionally. Ex smoker is an adult who has smoked at least 100 cigarettes in his or her lifetime but who had quit smoking at the time of interview. Ex-users of tobacco and alcohol are those who left alcohol and chewing tobacco and left this practice at the time of interview.

3) Information on physical measurement like weight, height, waist and hip circumference, BP were followed by detailed clinical examination for clinical diagnosis.

For measuring weight: A digital weighing scale was used to measure weight in kilograms. Employees were instructed to stand on the weighing scale without shoes and any objects like wallets, coins in their pockets and hands. They were asked to look straight and not look down.

For measuring height: The participants' heights were measured using a portable stature meter. The stature meter was placed on the floor, against the wall. The tape was pulled up for the zero to coincide exactly with the red stripe in the measurement display area. A mark was made on the wall where the tape ended. At that mark, the top of the tape was stuck on the wall. Participants were asked to stand upright without their shoes, with their backs against the vertical surface, heels together and eyes looking forward. The measuring tape was pulled down until it reached the top of the head of the participants. Height was measured to the nearest 0.1 cm.

Operational definitions:

BMI – weight (kg)/height (m²)

According to WHO Asia Pacific Guidelines

Underweight – BMI < 18.5 kg/m²

Normal weight – BMI 18.5 – 22.9 kg/m²

Overweight – BMI 23.0 – 24.9 kg/m²

Obese – BMI ≥ 25 kg/m²

4) Investigations:

Haemoglobin percentage: A card test was used wherein, the employees finger was sterilized using a sterile swab and a sterile lancet was used to prick the finger and the blood was then applied to the blotting paper. This paper was then compared with a card suggesting the Hb percentage of the individual, this percentage was then recorded. Haemoglobin less than 10g % was considered anemic.

Random blood glucose: A glucometer was used, wherein the finger was sterilized using a spirit swab and then pricked using a sterilized lancet and the blood was applied onto the strip and the reading was recorded in mmol/l.

Data were entered into Microsoft excel sheet and analyzed using SPSS 17.0 software. Frequency and percentages (descriptive statistics) were calculated. Pearson's Chi-square was used as a test of significance. P-value <0.05 was considered statistically significant.

RESULTS

In the present study there were 410 subjects, among them 324(79%) were males and 86(21%) were females. Out of total, majority 155(37.8%) in the age group 41-50 years, 104(25.36%) in the age group 51-60 years and only one was above 60 years.

In the study, the prevalence of overweight and obesity was more among physically inactive study subjects i.e. 54.4% and 59.0% respectively. There was a significant association (chi square= 14.85, p<0.05) between physical activity and BMI.

Smoking is considered for only males because there were no female smokers in the present study. Among the study population 30 (09.26%) were current smokers, 26 (08.02%) were ex-smokers and majority 268 (82.72%) were non-smokers.

In the present study, 63 (19.44%) were currently using smokeless tobacco, 12 (03.7%) were ex-users and majority of the study subjects 249 (76.85%) were not using any form of smokeless tobacco. Alcohol is considered for only males because no females in the study were drinking alcohol. In this study, 81 (25.0%) subjects were currently using alcohol, 18 (05.55%) were ex-users and majority of the study subjects 225 (69.44%) were not consuming alcohol.

The overall prevalence of anaemia in this study was 34.15%, the prevalence among males was 29.32% and among females was 52.32%.

In this study, 03 (0.7%) of the subjects had no risk factor, 21 (05.1%) had one risk factor, 88 (21.5%) had two risk factors and 298 (72.7%) had more than or equal to three risk factors.

Table 1: Distribution of bank employees according to physical activity (N=410)

Type of activity	Employees (%)
Sedentary (Physically Inactive)	249 (60.73)
Physically Active	
Mild	5 (1.22)
Moderate	143 (34.87)
Vigorous	13 (3.17)

Table 2: Association of physical activity with BMI

BMI	Physical activity		Total	P value
	Yes (%)	No (%)		
Underweight	02(08.69)	21(91.3)	23	<0.05
Normal	32(32.0)	68(68.0)	100	
Overweight	93(45.6)	111(54.4)	204	
Obese	34(40.9)	49(59.0)	83	
Total	161	249	410	

Table 3: Distribution of bank employees according to use of smoking, smokeless tobacco and alcohol consumption (N=324)

Habits Status	Male subjects (%)
Smoking	
Current smoker	30 (09.26)
Ex- smoker	26 (08.02)
Non-smoker	268 (82.72)
Smokeless tobacco	
Users	63 (19.44)
Ex users	12 (03.7)
Never used	249 (76.85)
Alcohol	
User	81 (25)
Ex-user	18 (5.55)
Never used	225 (69.44)

Only one female was tobacco chewing

Table 4: Prevalence of Anaemia among the bank employees

Status	Male (%)	Female (%)	Total (%)
Normal	229(70.7)	41(47.7)	270(65.85)
Anaemic	95(29.32)	45(52.32)	140(34.15)
Total	324	86	410

The most common combination of risk factors was dietary habits and overweight/ obesity.

The overall prevalence of hypertension in this study was 32.9%, the prevalence among males was 37.9% and among females was 13.9%. The prevalence of pre hypertension was 26.8%, the prevalence among males was 29.6% and females 16.3%.

The overall prevalence of diabetes in this study was 17.32%, the prevalence among males was 21.3% and among females were 02.

In this study, 55(13.4%) employees had single acute morbidity, 11(02.6%) had two morbidities. Among the participants, 86 (20.9%) had one chronic condition (Chronic bronchitis, CVD, diabetes, hypertension), 15 (03.6%) had two morbidities, and 1(0.24%) had three morbidities (CVD, diabetes, hypertension).

In our study 308 (75.1%) were free from any morbidity.

DISCUSSION

In the present study, the distribution of bank employees by various age groups showed that, majority (37.8%) were in the age group 41-50 years, followed by subjects in the age group 51-60 years (25.36%), 31-40 years (21.9%), and 20-30 years (14.63%). Out of 410 study subjects, 79% were males and 21% were females. In our study all the employees were included irrespective of their age. The youngest subject was 20 years old and the oldest subject was 60 years. In a study conducted among IBM company employees in Italy revealed that, 78% of the employees were males and 22% were females which is similar to our study.⁶

In our study, 60.73% of employees were sedentary and 39.26% were physically active. Among physically active subjects, majority, 34.87% were involved in moderate activity and 03.17% were involved in vigorous activity.

In a study conducted at Sullia, it was found that the prevalence of sedentary lifestyle was 73%.⁷ A study conducted among staff of Raichur Institute of Medical Sciences found the prevalence of sedentary lifestyle to be 27%.⁸ The prevalence of sedentary habits was more in our study compared to this study. The staffs in a medical college have better lifestyle practices compared to bank employees.

Smoking habit was found among 9.26% males and all were at risk of non-communicable diseases. In a study in Belagavi city on bank employees, 25.9% males were found to have the habit of smoking which is more compared to our study.⁵

In a study conducted among bank employees in Belagavi, it was observed that 9.33% of the subjects were using smokeless tobacco, which is less as compared to the present study. Even the habit of tobacco consumption is showing increasing trend among bank employees.⁵

Alcohol consumption was found only among males and none of the females in the study consumed alcohol. In the present study, 25% subjects were currently consuming alcohol. In a study conducted in Hubballi, only 4% of the study subjects were currently consuming alcohol which is very less compared to our study.⁹

In a study in Belagavi city, the prevalence of alcohol consumption was found to be 25.9% which is similar as in our study.⁵

In the present study, almost half (49.76%) of the employees were overweight and 20.24% were having obesity.

In a study on metabolic equivalent task score and risk factors of coronary heart disease in bank em-

ployees the prevalence of overweight was found among 56% of the study subjects.⁹

In a study among bank employees of Sullia Taluk, overweight was found in 36% of the employees.⁷

A study at Chennai which was conducted to assess the influence of physical activity on the risk factors of coronary heart disease revealed that, prevalence of obesity and truncal obesity increased significantly with decrease in physical activity.¹⁰

In a study among Australian bank employees, among male participants, physical activity was found to be negatively and independently associated with body weight, BMI, WC and WHR, after controlling for age, smoking and energy intake.¹¹

The overall prevalence of hypertension in our study was 32.9%. The prevalence among males (37.9%) was more than females (13.9%). The prevalence of pre hypertension was 26.8%. The prevalence among males (29.6%) was also more compared to females (16.3%).

A study conducted among bank employees in Puducherry revealed that the prevalence of hypertension and pre hypertension was 44.3% and 41.1% respectively which was slightly higher than our study.¹² Whereas a study in Meerut among bank employees prevalence of hypertension was 69.5% which is very high compared our study.¹³

The overall prevalence of diabetes in the present study was 17.32%. The prevalence among males was 21.3% and among females was 02.32%.

In a study conducted in Gujarat, it was found that the prevalence of diabetes was 20%.¹⁴ A study in South Karnataka revealed that the prevalence of diabetes was 28.4%.¹⁵ In another study conducted among bank employees in Hubballi in 2009, the prevalence of diabetes was found to be 10%.

In present study, 0.7% of the subjects had no risk factor, 05.1% had one risk factor, 21.5% had two risk factors and 72.7% had more than or equal to three risk factors. The most common combination of risk factors was dietary habits and overweight/obesity.

In a study conducted in Belagavi city in 2005 among bank employees it was found that, 21.3% of the study subjects had no risk factor, 23.7% had one risk factor, 19.3% had two risk factors, 13.4% had three risk factors and 22.3% had more than three risk factors. The prevalence of risk factor and multiple risk factors are showing increasing trend among bank employees.⁵

A study conducted among industrial male employees of North India revealed that, 15% of the subjects had no risk factor, 85% of the subjects had more than or equal to one risk factor and 47% of the subjects had more than or equal to two risk factors.¹⁶ Thus almost 50% or more population are having multiple risk factor.

In the present study, 13.4% employees had single morbidity, 02.6% had two morbidities. Among the participants 20.9% had one chronic condition (Chronic bronchitis, CVD, diabetes, hypertension), 03.6% had two morbidities, and 0.24 had three morbidities (CVD, diabetes, hypertension). In our study 75.1% were free from any morbidity.

In a study in South Karnataka, the overall prevalence of chronic disease was found to be 67%. Around 32% of the study subjects had single morbidity which is similar to our study.¹⁵

CONCLUSIONS

Majority of the bank employees were apparently healthy and most of them were having work related risk factors. There is a need for interventions aimed at improving the health status among employees of the banking sector.

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