

Prevalence of Mechanical Neckpain among the Bank Employees of Puducherry

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ABSTRACT:

BACKGROUND: Different occupational groups have reported varying prevalences of mechanical neck pain during work. The physical demands placed on bank employees, as well as the prolonged standing and sitting positions, can cause neck pain.

OBJECTIVE: The main objective of the study was to find out the prevalence of mechanical Neck Pain among bank employees.

METHODOLOGY: A cross-sectional study was conducted among 90 bank employees of Puducherry aged between 25 to 40 years of either gender from December 2022 to January 2023 using a Neck Disability Index Scale questionnaire. The participants were selected according to the inclusion criteria. Mechanical neck pain was assessed by assessment criteria.

RESULT: A Total Of 90 Subjects From Puducherry Bank Employees Were Examined With a 66.66% of Prevalence Rate. The prevalence was significantly high. It was Significantly Conformed ($P < 0.05$). So, this Study Concluded that the prevalence of Mechanical neckpain among Bank employees is high.

CONCLUSION: It is concluded that about 66.66% of bank employees were present with neck pain, and those aged between 35 to 40 years had a greater level of neck pain due to prolonged hours of working.

KEYWORDS: Neck pain, bankers' employees, neck disability index scale.

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INTRODUCTION

Neck pain is one of the health risks associated with poor body posture and long periods of computer use¹. Pain in the neck region can be caused by stiffer muscles or an infringement of the nerves that travel from the cervical vertebrae⁴. It is common to experience pain in the upper part of the trapezius muscle, which is thought to be caused by continuous computer work without any pauses or unbroken work². Neck pain and joint disruption in the neck are caused by muscular stiffness in both the neck and the upper back or by impingement of the nerves radiating from the cervical vertebrae¹. It could be acute or persistent. Neck pain causes can include poor posture, depression, anxiety, neck strain, and occupational activities⁴. It is one of the most common patient complaints in the world, particularly among bank employees who use computers exclusively at work³. Numerous issues that bank employees may experience, including physical, social, economic, psychosocial, and other individually based factors, increase the risk of neck disorders. Long hours spent in front of computers by bank employees, poor ergonomics, a lack of awareness of proper body alignment, and incorrect placement of the keyboard, screen, and disc all contribute to neck pain. Male office workers who used to wear ties for a longer period of time and with the proper selection of ties to prevent muscle injuries caused by a restriction in cervical range of motion. Cervical pain is very common in bank employees due to a longer workday, more physical demands, prolonged standing and sitting, improper seating, and extensive computer use. Many studies have been conducted on the relationship between working conditions in an occupation and the occurrence of neck pain. There is a specific population of bank employees who are at a higher risk of developing neck pain, and the prevalence is much higher when compared to the general population⁴

METHODOLOGY

It was a Cross - Sectional study of

descriptive type with sample size of 100 bankers from all banks in Puducherry. Out of 100 participants .10 individuals refused to participate. 4 individuals have neurological diseases, 4 have a history of degenerative changes for the past year and 2 have suffered trauma. At the end of the observation, the data was collected from 90 individuals. An ethical clearance was obtained from all banks. The purpose and importance of the study was explained to the participants and those bankers who might refuse to participate in the study were not forced. The study was carried out over two months from December 2022 - January 2023. The study population consists of male and female bank workers of age range of 25 to 40 years old, who had a working experience of 1 year or more. The sample selection was done through random observation according to the inclusion criteria. The participants were included, history of mechanical neck pain more than 3 months. The age group above 25 to 40 years. Both gender were considered. Participants were excluded if they had history of any neurological disease, history of any infection, trauma, TB, history of psychosis, history of spinal deformities, history of nerve compression and injury, history of degenerative changes and uncooperative patients. The data was collected using Neck disability index scale questionnaire to evaluate the pain, functional disability of individuals.

Outcome Measure :

Neck Disability Index Scale.

The data was collected using a neck disability index scale questionnaire among the bank Employees. The Neck Disability Index Scale is used to evaluate patients' neck pain intensity and disability. The Neck Disability Index Scale assesses patient pain intensity, personal care, lifting, reading, headache, concentration, work, driving, sleeping, and recreation. The neck disability index interpretations were 0-4 (no disability), 5-14 (mild disability), 15-24 (moderate disability), 25-34 (severe

disability), and 35-50 (complete disability).The data were recorded and statistically analysed.

STATISTICAL ANALYSIS

The collected data was entered and analysed using SPSS (Statistical Package for Social Sciences) Version 10 for Windows. The findings were expressed as percentages.

RESULTS

DEMOGRAPHIC CHARACTERISTICS OF THE BANKERS (n = 90)

TABLE 1 :

Table 1: Bank Employees Neck Pain in Percentage Between the Ages of 25 to 40

VARIABLES	FREQUENCY	PERCENTAGE
AGE ; MEAN \pm SD	n = 90	27.04 \pm 3.29
25 - 30 YEARS	40	45%
30 - 35 YEARS	20	49.5%
35 - 40 YEARS	30	63%

The overall percentage of people aged 25 to 30 affected out of 40 was 20, the percentage of people aged 30 to 35 affected out of 20 was 11, and the percentage of people aged 35 to 40 affected out of 30 was 21. The

affected population was 45% between the ages of 25 and 30 years, 49.5% between the ages of 30 and 35 years, and 63% between the ages of 35 and 40 years.

TABLE 2 :

Table 2: Bank Employees Neck Pain Intensity and Disability Between the Ages of 25 to 40

SI. NO.	SECTION	PERCENTAGE	MEAN VALUE	S. D
1.	PAIN INTENSITY	50%	2.5	1.11
2.	PERSONAL CARE	55%	3.01	1.18
3.	LIFTING	51%	3.05	1.24
4.	READING	41%	2.85	1.20
5.	HEADACHE	36%	2.80	1.24
6.	CONCENTRATION	49%	2.89	1.37
7.	WORK	56%	3.32	1.25
8.	DRIVING	62%	2.95	1.18
9.	SLEEPING	55%	3.14	1.24
10.	RECREATION	66%	3.16	1.26

Neck Disability Index Score among bank employees ranges from (1.30 to 3.70), (2.15 \pm 0.61).The bank employees age between 25 - 40 years had Pain intensity (2.5), Personal Care (3.01), Lifting (3.05), Reading (2.85), Headache (2.80), Concentration (2.89), Work (3.32), Driving (2.95), Sleeping (3.14), Recreation (

3.16). Most of the bank employees reported Increased Neck - related pain during Work (3.32), Recreational Activities (3.16), Sleeping (3.14), Lifting (3.05) and Personal Care (3.01).Additionally, bank Employees think that their work makes their neck pain worse

TABLE 3 :

Table 3: A bar chart showing bank employees' pain intensity and disability in percentage

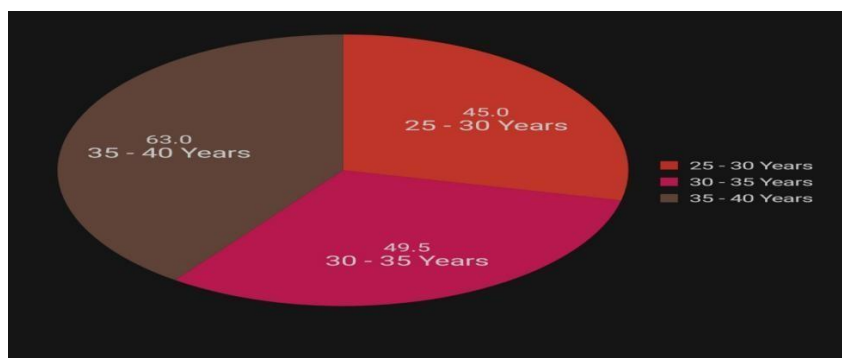
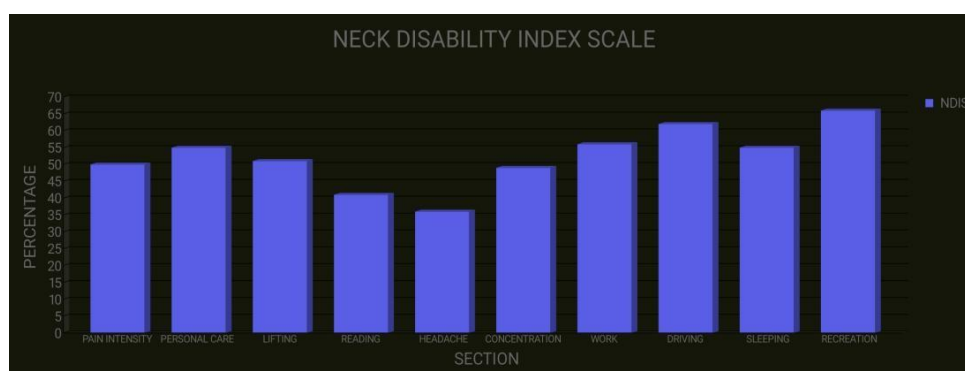


TABLE 4 :

Table 4 : A pie chart shows that the older the employee, the greater the neck pain.



DISCUSSION

The prevalence of mechanical neck pain was 66.66% among bank employees. The prevalence of mechanical neck pain was higher in the population between the ages of 35 to 40, at 63%. The neck pain increased during work, recreational activities, sleeping, lifting, and personal care when compared to driving, concentration, reading, headache, and pain intensity. This was concluded using the Neck Disability Index Scale Questionnaire. The most frequent causes of neck pain are static loading and repeated motion. The most frequent causes of neck pain were working in the same position for prolonged periods of time and completing the same task repeatedly. Due to poor ergonomics and workstations, including the wrong placement of the mouse, screen, and keyboard, neck strain is quite common among bank personnel. There are many documented risk factors for neck pain, including workstation layout, keyboarding,

repetitive motion, postural characteristics, and working posture. Out of the 90 candidates, 60 responded "yes" to having neck pain, while 30 candidates responded "no". The mean value of pain for those 60 candidates who reported neck pain was 1.30 to 3.70 on the neck disability index scale, the pain rating scale. Furthermore, their pain intensity increased as they worked. The prevalence of neck pain among bank employees who worked more than 7 hours per day is high. Age groups between 35 to 40 were more likely to experience neck pain. Long periods of desktop work were discovered to be harmful. The presence of bank employees was linked to neck disabilities. The relationship between higher physical demands and longer workdays, which raises the risk of neck discomfort impairment. Recent research indicates that ergonomics of work positions play a role in musculoskeletal issues. To prevent repetitive muscular damage that

could result in a disability with a longer duration, it was essential to have a full understanding of workplace architecture, candidate-specific accessories, and an adequate ergonomic strategy.

CONCLUSION

This study concludes that the prevalence of mechanical neck pain among bank employees in Puducherry was found to be 66.66%. The study offers important data on the severity of the issue and particular risk factors, information that may be utilised to guide future preventive measures. Due to bank employees' increased use of computers and gadgets, neck pain is becoming more common. Bad posture was a common risk factor. Some work-related activities, such as a longer workday, more physical demands, prolonged standing, sitting, and improper seating, were found to be the most common activities for developing mechanical neck pain among bank employees

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