

“A Study to Assess the Knowledge Regarding Musculoskeletal Problems Among Auto Drivers in Selected Areas of Pune City.”

Mr. Stawan Uttam Chougule^{1a*}, Mr. Abhishek Raj^{2b}, Ms. Riya Susan George^{3b}, Mr. Subodh Anil Ughade^{4b}

^a*Clinical Instructor, Medical Surgical Nursing, Bharati Vidyapeeth (Deemed to be University) College of Nursing, Pune.*

^b*B.Sc. Nursing Students, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Pune.*

**Corresponding Author*

Abstract

Introduction: Auto drivers often endure musculoskeletal issues due to prolonged sitting, repetitive motions, and poor posture while driving. These problems, ranging from back pain to joint stiffness, significantly impact their daily lives and livelihoods. Understanding and addressing these challenges are essential for improving the well-being and productivity of auto drivers.

Need of the study: The purpose of this research study is likely to identify common issues, their causes, and potential interventions to improve the health and well-being of auto drivers. It could also inform policies or interventions aimed at preventing or reducing musculoskeletal problems.

Material and Methods: The study conducted was non- experimental with Quantitative research approach. The population for the current study were the auto drivers of age 18yrs – 70 yrs. The data was collected from total of 200 samples using a self – structured questionnaire by non – probability sampling method. The informed consent was filled by the participants prior to filling the tool. The questionnaire consists of two sections mainly demographic section and main tool.

Result: The result shows that about 49% of samples having poor knowledge, 39.5% of samples having average knowledge and 11.5% of samples having good knowledge regarding musculoskeletal problems.

Conclusion: A study conducted to assess the knowledge regarding musculoskeletal problems among auto drivers in selected areas of Pune city. The statistical analysis revealed that majority of auto drivers were having poor knowledge regarding musculoskeletal problems.

Key words: assess, knowledge, musculoskeletal problems, auto drivers

Introduction

Professional Auto Rickshaw drivers face a multitude of health risks due to their irregular working hours, extended shifts, poor posture, dietary habits, and the stress associated with their job. The act of driving involves prolonged periods of sitting in a fixed position, which can directly contribute to musculoskeletal issues. ^(1,2) The driving posture places significant stress on the spine, often resulting in problems like backaches, neck discomfort, muscle strains, and overall stiffness. Additionally, the continuous lateral swaying and up-and-down vibrations experienced while operating a vehicle can lead to the development of Musculoskeletal Problems, ultimately reducing the driver's overall work capacity.³

Musculoskeletal Problems refer to a range of conditions that affect the muscles, bone, tendons, ligaments and other components of the musculoskeletal System. These issues can result from various factors, including repetitive movements, prolonged poor posture, physical stress, Trauma, ageing and certain medical conditions. ^(4,5)

Some of Musculoskeletal Problems: - Back Pain, Neck Pain, Shoulder Pain, Joint Stiffness and Arthritis, Carpal Tunnel Syndrome, Tendonitis, Muscle Strains and Sprains. ^(4,5)

Musculoskeletal Problems are significant Health issues for the general Population, significantly impacting their quality of life, which is making harder and needing more help from Doctors and the healthcare system. It's important to acknowledge that individuals hold diverse perceptions regarding their musculoskeletal issues and their perception about illness can exert a direct or indirect influence on health outcomes like Pain and disability, shaping their Coping strategies.⁶

This study focus to share its findings in order to promote the implementation of measures aimed at reducing musculoskeletal disorders among auto-rickshaw drivers, while also minimizing the associated costs and injuries resulting from ergonomic hazards in this profession.

Need of the Study

Auto-rickshaws, known as three-wheelers, are popular in India due to their affordability and accessibility, particularly in rural, urban, and densely populated areas where they serve as a key mode of transportation alongside buses and trains.⁷

Auto rickshaws are prevalent in countries like India, Bangladesh, and Nepal. India alone has around 6.5 million of these vehicles, with Maharashtra boasting 0.8 million and Pune approximately 0.16 million. Notably, between 2022 and May 2023, there was a 2.5% increase in auto rickshaw numbers. ^(8, 9)

Auto Rickshaw Drivers are prone to developing specific pains and Problems due to their unique occupational challenges. The constant sitting, repetitive movements and long hours of driving can lead to discomfort and pain in muscles, bones, joints.⁷

Understanding these Problems, it is essential for Auto drivers to be aware of these potential musculoskeletal problems and take steps to prevent and manage them, which can help to design intervention, ergonomic improvements and strategies to enhance their Health and well-being and working conditions of auto Auto drivers, ensuring a healthier and more comfortable work environment for them.⁷

Aim of the Study

The main aim of the study to assess the knowledge regarding musculoskeletal problems among auto drivers.

Research Methodology

The study aimed to evaluate the knowledge regarding musculoskeletal problems among auto drivers and correlate the findings with demographic variables. Using a non-experimental descriptive research design, data were collected from a total of 200 auto drivers aged 18 to 70 years. A non-probability purposive sampling technique was employed. A tool consisting of demographic variables and 15 self-structured questionnaires was developed. The tool's reliability was assessed by administering it to 20 participants (10% of the total sample) using the test-retest method, yielding a Karl Pearson's coefficient of correlation, $r = 0.82$, indicates reliable. For Pilot study, 20 samples were taken, it encountered no such issues, and the research was sufficiently practicable to move forward with the primary data collection.

Results

SECTION I: Description of the samples (auto drivers) according to the frequency and proportion of their individual traits.

In demographic variables 98% auto drivers were male & 2% were female, with ages mostly between 33.1 to 34 years. In terms of educational status, 36% had secondary education and among them 27% had 10-15 years of experience. 59% had never gone for health check-ups. The majority 45% worked for 9-11 hours. In spinal disorder and injuries like fall, slip or any accident, majority 90.5% had no Injury. Additionally, 79.5% had no awareness

regarding musculoskeletal problems and 86.5% had no experience with such problems. Regarding medical attention for musculoskeletal problems, the majority 84% were found not to be Attentive. Mostly 78.5% were not engaged in any of the physical exercise.

SECTION II: Finding Related to level of knowledge regarding musculoskeletal problems among auto drivers.

n = 200

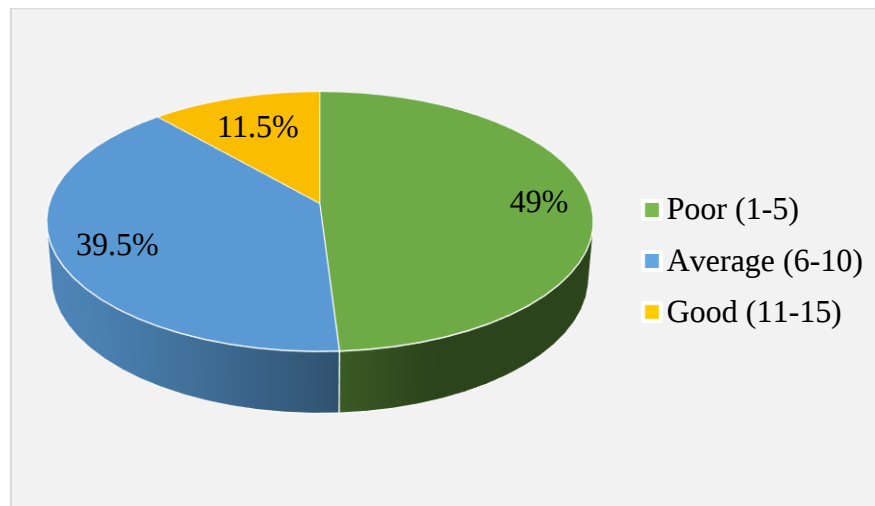


Table 1: The data depicts findings related to the level of knowledge regarding musculoskeletal problems among auto drivers. 49% of samples have poor knowledge, 39.5% have average knowledge, and 11.5% have good knowledge. The overall mean is 6.12 with a standard deviation of ± 4.49

Discussion

The goals and presumptions of the current study were discussed in relation to the study's findings, which was conducted to assess the knowledge regarding musculoskeletal problems among auto drivers in selected areas of Pune city.

Result of the study is supported by a similar study finding which is Conducted by Sandra P. et.al, On the 2 February 2024. With the result, the knowledge on ergonomics hazards among auto drivers using a structured questionnaire revealed that 7% have good knowledge, 49% have average knowledge and 44% of auto drivers have poor knowledge. In socio demographic data the samples were 32% of auto-drivers belongs to the age group of 31- 40 and 41-50 years. Majority 62% of auto-drivers have primary education. 34% of auto drivers have experience for 6-10 years and 30% have more than 10 years of experience. 56% of auto drivers work for 5-10 hours daily. Majority 42% of auto drivers have no previous sources of knowledge. ²⁶

Conclusion

The study was conducted undertaken to assess the knowledge regarding musculoskeletal problems among auto drivers in selected areas of Pune city.

A quantitative descriptive survey method to assess the knowledge of musculoskeletal problems among auto drivers and its correlation with demographic variables. Major findings revealed that most auto drivers were male, aged between 31.1 to 44 years, with secondary education, and 10-15 years of driving experience. A significant portion worked long hours and 49% were having poor knowledge, 39.5% were having average knowledge, 11.5% were having good knowledge. The overall mean is 6.12 with a standard deviation of ± 4.49 . Comparison with similar studies reinforced the findings. However, there was no significant association between knowledge and demographic variables. The conclusion underscores the need for interventions to improve awareness and mitigate

musculoskeletal risks among auto drivers, emphasizing education, ergonomic practices, and regular health check-ups.

Recommendations:

Based on the following, suggestions for additional study might be made:

1. It is possible to do a similar study in different contexts.
2. For the purpose of generalizing ratings, a similar study with a bigger sample size might yield more conclusive findings.
3. It is possible to conduct research to evaluate the efficacy of musculoskeletal health education for auto drivers.

Conflict of Interest:

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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