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IMPLEMENTING A STUDY ON LIFESTYLE AND CARDIOVASCULAR HEALTH OF SANITARY EMPLOYEES AT PRAVARA MEDICAL TRUST, LONI – A CROSS-SECTIONAL SURVEY

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ABSTRACT

Background: Cardiovascular disease (CVD) remains a leading cause of death globally, with a disproportionate burden on low- and middle-income countries (LMICs) [1]. While traditionally linked to high-stress occupations, recent research suggests lower socioeconomic status (SES) is a significant risk factor for CVD [2]. This raises concerns for sanitation workers, who often come from lower-income backgrounds and perform physically demanding jobs. Despite their essential role, limited research explores their potential risk for heart disease. **Introduction:** This study aimed to investigate the prevalence of cardiovascular risk factors and unhealthy lifestyle habits among sanitation workers at Pravara Medical Trust (PMT), Loni, Maharashtra, India. A cross-sectional survey design was chosen to assess the current health status of the participants at a specific point in time.

Aims and Objectives

- **Primary Aim:** To assess the prevalence of cardiovascular risk factors among sanitation workers at PMT.
- **Secondary Objectives:**

o To identify the prevalence of unhealthy lifestyle habits (smoking, alcohol consumption, physical inactivity, and unhealthy diet) among sanitation workers.

o To explore the association between lifestyle habits and CVD risk factors.

Methodology: Study Setting and Design: A cross-sectional survey was conducted among sanitation workers at PMT and Pravara Institute of Medical Sciences (PIMS), Loni, Maharashtra, India, over a two-month period (February-April 2024). A convenience sampling technique was employed, targeting a minimum sample size determined through power analysis. **Data Collection:** Data collection involved a multi-step approach:

- **Pre-tested Questionnaires:** A validated questionnaire was used to collect information on socio-demographic details, personal health history, current medications, and behavioral characteristics (smoking, alcohol consumption, diet, and physical activity).
- **Physical Measurements:** Blood pressure, weight, height, and waist circumference were measured according to standard protocols.
- **Secondary Data Collection:** Blood lipid profiles were obtained with informed consent from participants' medical records, allowing for CVD risk score calculation using a validated online calculator.
- **Ethical Considerations:** Ethical approval was obtained from the institutional ethics committee. Informed consent was secured from all participants, and confidentiality was maintained throughout the study.

Results: This study revealed the prevalence of various cardiovascular disease risk factors among sanitation workers at Pravara Medical Trust. The analysis identified the presence and extent of unhealthy lifestyle habits like smoking, alcohol consumption, physical inactivity, and unhealthy diets within this population group. An important aspect of the results was exploring potential links between these habits and the identified risk factors. **Conclusion:** This study will provide valuable insights into the cardiovascular health of sanitation workers and the prevalence of modifiable risk factors within this population. By identifying areas of concern, the findings can inform targeted interventions to promote healthy lifestyles and improve cardiovascular health outcomes among sanitation workers. **Limitations:** The limitations of the study will be acknowledged, including the cross-sectional design's inability to establish causality and the potential for selection bias due to the convenience sampling method. **Future Research Directions:** Future research directions will be outlined, emphasizing the need for larger, longitudinal studies to strengthen the generalizability of findings. Additionally, exploring social and economic factors beyond just income can provide a more comprehensive understanding of CVD risk among sanitation workers. This sample paper for publication provides a framework based on your previous data. Remember to replace the bracketed information with specific details from your actual study and conduct the data analysis to populate the "Results" section.

KEYWORDS : CVD, ASCVD risk calculator, Sanitary employees,

INTRODUCTION

For years, heart disease (CVD) has been linked to high-stress, high-income jobs. But new research reveals a surprising truth: low-income populations, like sanitation workers, often face a greater risk.

This disparity stems from challenges linked to lower income. Sanitation workers, the backbone of clean cities, exemplify this issue. Despite their vital role, little is known about their CVD risk.

This study investigates the prevalence of CVD risk factors and unhealthy habits among sanitation workers at Pravara Medical Trust, India. By understanding their health struggles, we can develop targeted interventions and bridge the gap in CVD research for low-income populations in developing countries.

Aim of Study:

To assess the prevalence of cardiovascular risk factors and unhealthy lifestyle habits among the employees of the sanitary Department at Pravara Medical Trust, Loni, Maharashtra.

Objective of the Study:

1. To assess the prevalence and risk factors of cardiovascular diseases among the employees of the sanitary department of Pravara Medical Trust.
2. To evaluate the impact of lifestyle habits such as smoking, alcohol consumption, physical activity, and diet on cardiovascular health of the employees.
3. To calculate ten year risk of CVD using ASCVD risk calculator.

Methodology (Summary)

Study Design: This cross-sectional survey investigated the prevalence of CVD risk factors and unhealthy lifestyle habits among sanitation workers at Pravara Medical Trust (PMT), Loni, India. Data collection occurred over two months (February-April 2024) using a convenience sample of 160 participants.

Data Collection:

- **Questionnaires:** A pre-tested, semi-structured questionnaire administered through Google Forms collected data on demographics, health history, medications, and behavioral characteristics (smoking, alcohol, diet, physical activity).
- **Physical Measurements:** Height, weight, and waist circumference were measured according to standardized protocols. Blood pressure was measured twice, and the mean value was used for hypertension diagnosis.
- **Secondary Data:** Blood lipid profiles were retrieved from

medical records with informed consent for CVD risk score calculation using an online tool.

Ethical Considerations: Ethical approval was obtained, and informed consent was secured from all participants.

Results (Summary)

The study identified the prevalence of various cardiovascular disease (CVD) risk factors among sanitation workers at Pravara Medical Trust (PMT). Additionally, the analysis revealed the presence and extent of unhealthy lifestyle habits within this population group, including smoking, alcohol consumption, physical inactivity, and potentially unhealthy dietary patterns.

DISCUSSION

Strengths:

- This study focused on a previously under-researched population - sanitation workers - in relation to cardiovascular health.
- A well-established methodology (cross-sectional survey) was employed to gather data on lifestyle habits and health indicators.
- A validated risk assessment tool was used to estimate participants' CVD risk.
- Data collection included anthropometric measurements, blood pressure readings, and medical history.

Limitations:

- Reliance on secondary data for lipid profiles may have introduced minor inaccuracies.
- Employee hesitancy to disclose information about potential addictions could have affected data accuracy.

Key Findings:

- The study identified modifiable risk factors such as smoking, alcohol consumption, and possible unhealthy dietary habits among sanitation workers.
- Importantly, the study identified previously undiagnosed cases of high blood pressure, highlighting a crucial health concern within this population.

Future Directions

- A larger sample size could strengthen the generalizability of findings.
- A longitudinal design would allow for investigation of causal relationships between lifestyle factors and CVD risk.
- Further exploration of socioeconomic determinants of health beyond income is needed.
- More in-depth assessment of dietary habits (beyond self-reported questionnaires) could improve data accuracy.

Public Health Implications:

This study emphasizes the potential CVD risks faced by sanitation workers. The identification of modifiable risk factors underscores the importance of preventive measures and lifestyle changes.

- **Early Intervention:** By pinpointing workers at high risk, early intervention strategies can be implemented to reduce their CVD risk.
- **Workplace Wellness Programs:** This research can inform the development of targeted programs within PMT to improve the health and well-being of its sanitation workers.
- **Public Awareness:** The findings can contribute to raising public awareness about the occupational health risks faced by sanitation workers, potentially leading to improved work environments and support systems.

CONCLUSION

This study suggests that sanitation workers may be vulnerable to heart disease due to specific lifestyle habits. However, the positive takeaway is that these habits can be modified through targeted interventions and lifestyle changes.

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