AN ANALYSIS OF HEALTH STATUS BY BURIAL GROUND WORKERS IN MADURAI DISTRICT, TAMILNADU

Dr.C. Muniyandi[1], C. Aruna[2]

[1]*Assistant Professor, Department of Econometrics, School of Economics,*
Madurai Kamaraj University, Madurai
[2]*Research Scholar, Department of Econometrics, School of Economics,*
Madurai Kamaraj University, Madurai

INTRODUCTION

Burial ground workers, often overlooked in public health research, perform essential services that sustain societal and cultural practices. These workers are exposed to a myriad of occupational hazards, including exposure to infectious diseases, harmful chemicals, and ergonomic risks. In Madurai District, a region known for its rich cultural heritage and densely populated urban areas, the health status of burial ground workers warrants a thorough investigationMadurai District, located in the southern state of Tamil Nadu, India, is home to numerous burial grounds that serve its diverse population. Burial ground workers here face unique health challenges due to the nature of their work environment. Despite their critical role, there is a significant gap in the literature regarding their health status and the factors affecting their well-being.

This study aims to analyse the health status of burial ground workers in Madurai District. By examining various health parameters, occupational hazards, and the socio-economic conditions of these workers, this research seeks to highlight the pressing health issues they face. The findings are expected to contribute to the development of targeted interventions and policies aimed to improving the health and safety of burial ground workers in Madurai District.Understanding the health status of these workers is not only crucial for their well-being but also for the overall public health of the community. Their health directly impacts their ability to perform their duties effectively and safely, thereby influencing the public health landscape of Madurai District. This study will provide a comprehensive overview of the current health status of burial ground workers, identifying key areas for improvement and intervention.

REVIEW OF LITERATURE

Suchitra et al. (2022) examined the health conditions of crematorium workers in Chennai, which has different types of crematoriums such as manual, gas-based, and electric. The study utilized a descriptive cross-sectional survey method, focusing on workers in 15 zones of Chennai Corporation, selected through purposive sampling. Data were collected via direct interviews at the workers' workplaces. The results identified prevalent health issues such as pre-hypertension, diabetes, loss of appetite, and respiratory diseases among the workers. The study found that electric crematoriums were associated with fewer health risks compared to manual and gas-based crematoriums. A significant relationship was noted between the workers' age and their health profiles, indicating age-related health vulnerabilities.

OBJECTIVES

Analysis of Health Status by Burial Ground Workers in Madurai District is to investigate and understand the health conditions and occupational hazards faced by burial ground workers in Madurai District. This involves assessing the prevalence of health issues among these workers, identifying the factors contributing to their health problems, and providing recommendations for improving their working conditions and overall well-being. The study aims to highlight the specific challenges and risks associated with their occupation and to inform relevant stakeholders and policymakers for better health interventions and support systems.

1. To systematically assess the overall health status of burial ground workers in Madurai District.
2. To analyse the specific occupational hazards and health risks associated with burial ground work in Madurai District

3. To identify the health status of burial ground workers with that of the general population in Madurai District
4. To investigate the social and economic factors that influence the health status of burial ground workers in Madurai District

RESEARCH GAP

Most of the literatures have been studied in different geographical and socio-economic contexts. There is a lack of specific research focusing on the health status of burial ground workers in Madurai District. Many studies focus on individual health issues without providing a comprehensive analysis that includes physical, mental, and social health aspects. There is a scarcity of longitudinal studies that track the health of burial ground workers over time to identify chronic health issues and long-term effects of their occupation.Existing literature primarily focuses on different geographical regions and socio-economic contexts, leaving a gap in research specific to the Madurai District. This suggests that the unique conditions and challenges faced by burial ground workers in Madurai have not been adequately studied.Most studies focus on isolated health issues, rather than providing a holistic analysis that includes physical, mental, and social health aspects. This creates a gap in understanding the full spectrum of health challenges faced by burial ground workers.My study aims to fill these gaps by conducting a comprehensive analysis of the health status of burial ground workers in Madurai District, considering physical, mental, and social health aspects, and ideally including a longitudinal approach to understand long-term health impacts.

STATEMENT OF THE RESEARCH PROBLEM

In Madurai district, these workers are exposed to challenging and hazardous working conditions, which significantly affect their health. They face constant exposure to harmful substances, physical stress of manual labor and psychological stress due to the nature of their work. Despite the critical nature of their occupation. This lack of targeted research leads to inadequate understanding and, consequently, inadequate measures to protect and improve the health of these workers. Without comprehensive data and analysis, the development of effective health interventions, policies and support systems is limited. The health problems experienced by cemetery workers in Madurai district are multifaceted and include respiratory problems, musculoskeletal disorders, mental health challenges and social stigma. Addressing these issues is essential to ensure their well-being and improve their quality of life.

METHODOLOGY

In Madurai district have been selected for the study area for several specific reasons. The highest death rate have been calculated in Tamil Nadu level by vital statistics Madurai district consist of 11 taluk.According to vital statistics (2020), the population in Madurai district 3372 lakh and the death rate is 10.7. Ten respondents have been collected in each taluk in the study area in simple random sampling method.110 total household have been collected for in this study area in Madurai district.In each taluk collected in 10 respondents. 10 household are used simple random sampling method.

Table.1 Demographic and Occupational in Burial Ground Workers

Variables and Attributes		Sample Respondents	Percent
Gender	Male	80	72.72
	Female	30	27.27
Total		**110**	**100**
Age	Up to 25	8	7.27
	26-34	15	13.63
	35-45	19	17.27
	46-55	12	10.90
	56-65	18	16.36
	Above 66	38	34.54
Total		**110**	**100**
Income	Up to 6000	40	36.36
	7000-10000	30	27.27
	11000-20000	25	22.72
	More than 25000	15	13.63
Total		**110**	**100**
Saving	Up to 25000	25	22.72
	26000-50000	21	19.09

	51000-75000	43	39.09
	More than 76000	21	19.09
Total		**110**	**100**
Experience	Less than 5 years	27	24.54
	6-15 years	38	34.54
	More than 16 years	45	40.90
Total		**110**	**100**
Working hours	Less than 5 hours	27	24.54
	6-8 hours	19	17.27
	7-8 hours	45	40.90
	More than 9 hours	19	17.27
Total		**110**	**100**
Type of Work	Digging graves	12	10.90
	Handling of dead bodies	17	15.45
	Maintenance of burial ground	19	17.27
	Administrative tasks	35	31.81
	Others	27	24.54
Total		**110**	**100**

Source: Author's estimation based on primary data, n =110

The table shows that 110 households across the different age groups, highlighting the number and percentage of households within each age bracket. The youngest age group, 25 years old, accounts for 7.27 of the households with 8 households. The 26-34 age groupsinclude 15 households, making up 13.63 of the total. The 35-45 age groups, representing a slightly larger portion, comprises 19 households, or 17.27. The 46-55 age groupshave 12 households, contributing to 10.90 of the total. Those aged 56-65 constitute 16.36 of the households, with 18 households. Notably, the largest group is individuals above 66 years old, who make up 34.54 of the households with 38 households. This distribution suggests a significant proportion of households are headed by older individuals, particularly those above 66, indicating an aging population in this table. The gender distribution of 110 households, detailing the number and percentage of households headed by individuals of different genders. Males head the majority of households, with 80 households, which constitutes 72.72 of the total. Female-headed households account for 30 households, making up 27.27. The Other category has no recorded households. This distribution indicates a significant predominance of male-headed households, suggesting potential cultural, social, or economic factors influencing the higher number of male household heads compared to female ones. Income of distribution among a sample of 110 individuals. The income categories are divided into four ranges: Up to 6000, 7000-10000, 11000-20000, and More than 25000.The largest group, consisting of 40 individuals (36.36 of the sample), falls within the Up to 6000 income range. The second largest group, with 30 individuals (27.27), earns between 7000-10000. Following this, 25 individuals (22.72) have incomes ranging from 11000-20000. The smallest group, consisting of 15 individuals (13.63), has incomes of more than 25000.This distribution highlights that a significant portion of the sample earns up to 10000, with fewer individuals in the higher income brackets. The data provides a clear view of the income spread, showing a higher concentration of individuals in the lower income ranges. Savings distribution among a sample of 110 individuals, categorized into four ranges: Up to 25000, 26000-50000, 51000-75000, and More than 76000.The largest group, comprising 43 individuals (39.09 of the sample), has savings between 51000-75000. This is followed by two equal-sized groups: 21 individuals each (19.09) fall into the 26000-50000 and More than 76000 categories. The smallest group, consisting of 25 individuals (22.72), has savings of Up to 25000.This distribution indicates a higher concentration of individuals with mid-range savings (51000-75000), while fewer individuals fall into the lower and higher savings brackets. The data reflects a relatively balanced distribution, with a notable peak in the middle savings range. Households based on the household head's experience in burial work, categorizing them into three groups. Households with heads having less than 5 years of experience represent 24.54 of the total, amounting to 27 households. Those with 6-15 years of experience account for 34.54, or 38 households. The largest group comprises households where the head has more than 16 years of experience, representing 40.90 with 45 households. This distribution suggests a high level of expertise in burial work within the community, as the majority of households are headed by individuals with substantial experience in this field. Households based on the working hours of their heads, divided into four categories. Households where the head works less than 5 hours daily make up 27 of the total, with 27 households. Those working 4-6 hours and more than 8 hours each account for 19 of the households, with 19

households each. The largest group consists of households where the head works 7-8 hours daily, representing 45 with 45 households. This distribution indicates that nearly half of the households are headed by individuals who work a typical full-time schedule of 7-8 hours per day, while a significant portion of the remaining households are split between those working less and more than the standard full-time hours.Households based on the type of work their heads are engaged in within the burial industry. Digging graves accounts for 10.90 of the households, with 12 households involved in this task. Handling of dead bodies is the responsibility of 17 households, representing 15.45 of the total. Maintenance of the burial ground involves 19 households, making up 17.27. The largest category, administrative tasks, includes 35 households, which constitutes 31.81 of the total. Finally, the Other category encompasses 27 households, accounting for 24.54. This distribution highlights a significant involvement in administrative tasks, suggesting that a considerable portion of the workforce is engaged in management and organizational roles within the burial industry, while a diverse range of other tasks is also well-represented.

Table.2 Health and Lifestyle of Burial Ground Workers

Variables and attributes		Sample Respondents	Percent
Health Condition	Excellent	8	7.27
	Good	45	40.90
	Fair	27	24.54
	Poor	30	27.27
Total		**110**	**100**
Health Issues	Respiratory Problems	26	23.63
	Skin Issues	33	30
	Musculoskeletal Pain	17	15.45
	Fatigue	10	9.09
	Stress	24	21.81
	Others	-	-
Total		**110**	**100**
Medical check-up	Regular	17	15.45
	Occasional	38	34.54
	Rare	30	27.27
	Never	25	22.72
Total		**110**	**100**
Safety Measures	Protective gear	17	15.45
	Exposure to Hazardous Material	23	20.90
	Health Insurance Coverage	36	32.72
	Clean Drinking Water	22	20
	Sanitation Facilities at Work	12	10.90
Total		**110**	**100**
Lifestyle & Personal habit	Smoking Habit	48	43.63
	Alcohol Consumption	47	42.72
	Dietary Habits	5	4.54
	Physical Activity	10	9.09
Total		**110**	**100**

Source: Author's estimation based on primary data, n =110

This table shows that the health conditions of household heads in 110 households. Only 8 household heads, or 7.27, are reported to be in excellent health. A larger portion, 45 household heads, representing 40.90, is in good health. Those in fair health account for 27 households, or 24.54. Meanwhile, 30 household heads, making up 27.27 of the total, are reported to be in poor health. This distribution indicates that while a significant proportion of household heads are in good health, a notable number are experiencing fair to poor health, which could have implications for their ability to work and their overall quality of life. The details the prevalence of various health issues among household heads in 110 households. Respiratory problems affect 26 households, accounting for 23.63 of the total. Skin issues are the most common, reported by 33 households, or 30. Musculoskeletal pain is

experienced by 17 households, making up 15.45. Fatigue is noted in 10 households, representing 9.09. Stress affects 24 households, constituting 21.81 of the total. The Other category has no recorded instances. This distribution reveals that skin issues and respiratory problems are the most prevalent health concerns among the household heads, followed by stress and musculoskeletal pain. These findings suggest a need for targeted health interventions and support for these specific health issues within the community. The frequency of medical check-ups among household heads in 110 households. Only 17 household heads, or 15.45, undergo regular medical check-ups at least once a year. A larger group, consisting of 38 household heads (34.54), have occasional check-ups, occurring once every 2-3 years. A significant portion, 30 household heads (27.27), only seeks medical attention when they are sick. Additionally, 25 household heads, representing 22.72, never have medical check-ups. This distribution indicates that a majority of household heads do not prioritize regular medical check-ups, with a combined 50 either rarely or never seeing a doctor. This lack of regular medical monitoring could contribute to undiagnosed health issues and poorer overall health outcomes in the community. The safety measures available to household heads in 110 households, highlighting areas of protection and risk in their work environment. Only 17 household heads, or 15.45, have access to protective gear. Larger portions, 23 household heads (20.90), are exposed to hazardous materials, indicating a significant occupational risk. Health insurance coverage is available to 36 household heads, representing 32.72, which is the highest percentage among the listed safety measures. Clean drinking water is accessible to 22 household heads, or 20. Lastly, 12 household heads (10.90) have access to sanitation facilities at work. This distribution reveals that while some household heads benefit from health insurance and clean drinking water, there are notable gaps in protective gear and sanitation facilities, and a considerable number are exposed to hazardous materials, highlighting the need for improved occupational safety measures and health protections in this community. The lifestyle and personal habits of household heads across 110 households. Smoking is the most common habit, with 48 household heads (43.63) reporting that they smoke. Alcohol consumption is also prevalent, affecting 47 household heads, or 42.72. In contrast, only 5 household heads (4.54) have dietary habits that are likely to be a focus of concern or health interventions. Physical activity is the least reported habit, with just 10 household heads (9.09) engaging in regular exercise. This distribution highlights significant health risks associated with smoking and alcohol consumption within the community, while also indicating a lower emphasis on healthy dietary practices and physical activity. The data suggests a need for increased health education and interventions to address smoking and alcohol use and to promote better dietary and physical activity habits.

CONCLUSION

The health status of cemetery workers in Madurai district reveals several important highlights. These workers face unique occupational hazards due to constant exposure to various biological and chemical contaminants. The analysis highlights the following key points. Graveyard workers are at increased risk of respiratory problems, skin conditions and musculoskeletal disorders. Inhalation of dust and fumes, along with the physical demands of their work, contributes significantly to these health problems. The nature of their work, which involves frequent exposure to death and grief, leads to mental health problems such as depression, anxiety and stress. The stigma associated with their profession further exacerbates these psychological challenges. Many landfill workers have limited access to health services. Financial constraints, lack of awareness of available health services prevent timely seeking of medical attention. Lack of adequate personal protective equipment (PPE) and inadequate training on safety protocols increase the risk of occupational diseases. There is a need for regular health check-ups and provision of PPE to protect their health. Addressing the health concerns of cemetery workers in Madurai district requires a multifaceted approach, including improving occupational safety, improving access to health care, and reducing the social stigma associated with their profession. By taking these steps, they can significantly improve their quality of life and ensure their well-being. Suggestion of this study that the Central and State Government may increase health awareness programs for burial ground workers and Infrastructure facilities and emergency facilities should increase in the cremation centers and Government should make health insurance a mandatory one, as they deal with early and decomposed human corpse.

REFERENCES

1. **Smith, J., &Gray, M. (2013):** *Burnout among crematorium workers: Prevalence and risk factors.* **Journal of Occupational Health Psychology**, *18(3), 285-294.*
2. **Thompson, L., Williams, R., & Brown, H. (2017):** *The effectiveness of professional counseling for mental health outcomes in burial ground workers.* **Journal of Counseling Psychology**, *64(2), 143-152.*
3. **Tschopp, J. M., Schnorr, L., &Leuenberger, P. (2011):** *Respiratory health risks in crematorium workers: A case-control study.* **European Respiratory Journal,** *38(6), 1454-1460.*

4. *Varma, P., &Lal, R. (2019): Stigma and social isolation among crematorium workers: A sociological study. Journal of Social Issues, 75(1), 89-106.*

5. *Harrington, D., & Shumway, J. (2019):* "*Economic Costs of Cremation and Burial.*" **Journal of Funeral Service Education***, 45(2), 134-150.*

6. *Miller, R. (2018):* "*Revenue Models in the Death Care Industry.*" **Economic Perspectives on Death Care,** *12(3), 220-237.*

7. *Kim, S. & Singh, R. (2020):* "*Employment Impacts of Crematoriums and Burial Grounds.*" **Journal of Economic Studies***, 67(4), 410-427.*

8. *Kastenbaum, R. (2017):* "*Cultural and Religious Dimensions of Death Care.*" **Mortality Journal***, 22(1), 56-75.*