

SOCIO-ECONOMIC STUDY OF PUBLIC TOILET CLEANERS IN THOOTHUKUDI DISTRICT OF TAMILNADU STATE

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Abstract

In a developing country with limited resources, such as India, the majority of cleaning in metropolitan areas is still done by hand. The purpose of this article is to examine public toilet cleaners in the Thoothukudi area of Tamilnadu's awareness of educational changes, as well as their socio-economic profile and issues. This article, which is a part of the Indian Council of Social Science Research – Impactful Policy Research in Social Science (ICSSR – IMPRESS), New Delhi aims to comprehend the above-mentioned fundamentals in order to help the policy makers for better education, rights, power and work opportunities for the impoverished. Secondary data was gathered from published books, e-books, periodicals, newspapers, research articles, research journals, e-journals, and other sources. According to the study, the majority of respondents (70.40%) were employed on a long-term basis. Only 29.60% of the workers were on a temporary basis. The study finds that the link between educational change awareness and socioeconomic characteristics, such as sex, personal income, and kind of job, is significant at the 5% level, with a P-value less than 0.05. The null hypothesis has consequently been discarded for these variables. The null hypothesis has therefore been accepted for these variables. It is clear that the sample respondents prioritised the order of health problems when cleaning the public restroom. Using Garrett's score, it can be deduced that. Respondents placed respiratory disease first, followed by allergy disorders, in terms of priority of health problems. Back discomfort, asthma, and other health issues were placed third and fourth, respectively. Eye illnesses were ranked fourth. Public toilet cleaners suffered some injuries while cleaning toilets was ranked sixth, and communicable disorders was placed fifth. Safety precautions, regular medical camps, eliminating manual scavenging, and increasing public awareness of government programmes can all help to improve the quality of life of public toilet cleaners.

Keywords: public toilet, manual scavengers, occupational hazards, respiratory disease, quality of life.

INTRODUCTION

Public toilet cleaners form the mainstay of the civic cleaning system of any society. Health is another issue of prime concern. The disease can debilitate and reduce the quality of life. Manual contact with excreta exposes manual scavengers to various diseases; infection of skin, rotting of fingers & limbs, tuberculosis and nausea are common. Several complain inability to have food due to exposure to excreta. (Siddaramu, 2013).

In India, we have nearly 1.2 million public toilet cleaners (Tiwari, 2008). According to Socio Economic Caste Census 2011, 180,657 households are engaged in manual scavenging for a livelihood (Hindustan Times, 2015). The state of Maharashtra, with 63,713, tops the list with the largest number of households working as manual scavengers, followed by the states of Madhya Pradesh, Uttar Pradesh, Tripura and Karnataka (Venkat, Vidya, 2015).

An estimate in 2018 put the number of "sanitation workers" in India at 5 million, and 50% of them being women (Dalberg Global Development Advisors, 2018). Most women from the manual scavenging communities tend to be addicted to tobacco (Gutka) and men are given to liquor in an attempt to diminish the repulsive nature of their work and beat back their state of hopelessness (Siddaramu, 2013).

The sanitary workers often fall prey to occupational hazards like exposure to harmful gases, drowning, muscular-skeletal disorders, serious skin infections, respiratory disorders and cardiovascular ailments (Nethercott and Holness, 1988). The health hazards of sanitary workers include exposure to harmful gases, cardiovascular degeneration, musculoskeletal disorders, infections, skin problems and respiratory system problems (Tiwari, Rajnarayan R., 2008).

Watt studied 26 sewer workers exposed to smell and found that 53.8% developed sub-acute symptoms including sore throat, cough, chest tightness, breathlessness, thirst, sweating, irritability and loss of libido (Watt MM, Watt SJ, Seaton A., 1997). Sewage workers are exposed to different occupational noxious agents, which may lead to the development of chronic lung function changes (Rylander R., 1999).

Possible health hazards include hand and leg injuries, communicable disease, respiratory disorders, eye disorders and allergic problems. The hazards for sanitary workers include exposure to harmful gases such as methane and hydrogen sulphide leading to instant death and/or cardiovascular degeneration, musculoskeletal disorders like osteoarthritis changes and intervertebral disc herniation, infections like hepatitis, leptospirosis and helicobacter, skin

problems, respiratory system problems and altered pulmonary function parameters (Narayanan, 2013). In this paper, an effort is made to evaluate the knowledge and nature based on the perception of sample public toilet cleaners (sanitary workers) and awareness about educational change and problems faced by the sample public toilet cleaners in Thoothukudi district.

OBJECTIVES OF THE STUDY

The main goals of the research are as follows:

1. To study the socio-economic circumstances of the sample public toilet cleaners.
2. To highlight the employment status of sample respondent and awareness about educational change.
3. To measure the frequency of cleaning the toilet per day in Thoothukudi district.
4. To evaluate the cleaning items used by public toilet cleaners and level of satisfaction of public toilet cleaners
5. To find the health issues of the public toilet cleaners in Thoothukudi district.

METHODOLOGY

The present study is carried out in Thoothukudi Corporation of Tamilnadu by using simple random sampling method. The primary data collected from the 250 public toilet cleaners working in the Thoothukudi Corporation. From the list of sanitary workers, it has been decided to select the sample to conduct an in-depth study randomly. The researcher chose the samples as per her guidelines. The research design of the present study is descriptive. The averages, standard deviation, f-test, t test, chi-square test, Anova, and probability analysis used for the analysis. The secondary data collected from available literature in books, e-books, magazines, newspapers, research article, research journal, e-journals, and other published materials about the working in India, mainly meant for the sanitary workers. The field survey was directed by personal interview method during the period from September 2018 to December 2019.

REVIEW OF LITERATURE

Mohammed Peer (1992) in his study has made an attempt to evaluate the socioeconomic status of the scavengers and the impact of different welfare programmes. The obstacles in their

progress, measures for ameliorating the conditions of scavengers and tackling the problem of sanitation in general have also been discussed.

Arina Zanuzdana.et.al (2012) showed a complex relationship between housing satisfaction and the quality of basic facilities including the reachability of medical care.

Chambers and Medeazza (2013) published a paper that the puzzle of persistent under nutrition in India is largely explained by open defecation, population density, and lack of sanitation and hygiene. The impact on nutrition of many faecal-transmitted infections, not just the diarrhoeas, has been a blind spot. In hygienic conditions much of the under nutrition in India would disappear.

Patil, et al (2013) writes that poor sanitation and open defecation are thought to be a major cause of diarrhoea and intestinal parasite infections among young children. Suha and Haque (2013) bring to light, the reason behind poor health and its impact on adolescent girls living in slums.

Naveed and Anwar (2014) point out that people living in low socio-economic conditions due to which they had to face health issues. UNICEF, (2017) declares that sanitation, hygiene, and cleanliness are critical for health and sustainable socio-economic development.

ANALYSIS AND INTERPRETATION

TABLE 1
AGE-WISE CLASSIFICATION OF RESPONDENTS

Sl. No.	Age (in years)	No. of Respondents	Percentage
1.	Less than 30	45	18.00
2.	30 – 40	94	37.60
3.	40 – 50	73	29.20
4.	50 and above	38	15.20
Total		250	100

Source: Primary data.

From Table 1, it has been revealed that the majority of respondents are in the age groups of between 30–40 years and 40-50 years, which constitute 37.60 and 29.20 percent respectively. The Number of Respondents, who is under the age group of fewer than 30 years, represents 18.00 percent, the public toilet cleaners, who are 50 years and above constitute 15.20 percent to the total of 250. The mean age of respondents worked out to be 39.16 years.

TABLE 2
SEX-WISE ANALYSIS OF THE RESPONDENTS

Sl. No.	Sex	No. of Respondents	Percentage
1.	Male	164	65.60
2.	Female	86	34.40
Total		250	100

Source: Primary data.

From Table 2, it has been inferred that out of 250 respondents, the majority of 164 (65.60 percent) are male and rest 86 (34.40percent) is female, respectively.

TABLE 3
EDUCATIONAL ATTAINMENT RESPONDENTS

Sl. No.	Level of Education	No. of Respondents	Percentage
1.	School Level	78	31.20
2.	College Level	19	7.60
3.	Technical Level	6	2.40
4.	Illiterate	147	58.80
Total		250	100

Source: Primary data.

It has been inferred from Table 3 that a maximum of 58.80 percent of the respondents is illiterate, followed by 31.20 percent with school level. 7.60 and 2.40 percent of the respondents have college-level education and technical Level education, respectively.

TABLE 4
TYPE OF FAMILY OF THE RESPONDENTS

Sl. No.	Nature of Family	No. of Respondents	Percentage
1.	Nuclear Family	154	61.60
2.	Joint Family	96	38.40
Total		250	100

Source: Primary data.

It has been inferred from Table 4 shows that out of 250 respondents 154 (61.60 percent) belonged to the nuclear family system, and the remaining 96 (38.40 percent) belonged to the joint family system. It indicates a constant decline of the joint family system even in the study area.

TABLE 5
YEARS OF EXPERIENCE

Sl.No.	Experience (in years)	Number of Respondents	Percentage
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1.	Less than five years	18	7.20
2.	5 – 7 years	21	8.40
3.	7 – 9 years	39	15.60
4.	Nine years and above	172	68.80
	Total	250	100

Source: Primary data

Table 5 shows that in respondents a maximum of 68.80 percent of the total respondents has nine years and above of experience followed by 15.60 percent for 7-9 years. 8.40 percent of the workers have 5-7 years of experience, and 7.20 percent with less than five years of experience. Mean years of experience of respondents worked out to be 8.92 years.

TABLE 6
NATURE OF EMPLOYMENT OF THE RESPONDENTS

S.No.	Nature of Employment	No. of Respondents	Percentage
1.	Temporary	74	29.60
2.	Permanent	176	70.40
	Total	250	100

Source: Primary data

Table 6 describes that most of the respondents (70.40 per cent) were having permanent employment. The temporarily employed came to only 29.60 per cent.

TABLE 7
NATURE OF WORK OF SAMPLE RESPONDENTS

Sl. No.	Nature of work	No. of Respondents	Percentage
1.	Health Officer	1	0.40
2.	Sanitary Inspector	8	3.20
3.	Sanitary Supervisor	16	6.40
4.	Public toilet cleaners	189	75.60
6.	Driver	36	14.40
	Total	250	100

Source: Primary data.

It has been observed from Table 7 the nature of work of 250 public toilet cleaners. Out of the total, 1 (0.40 percent) of the respondents work as health officer, 8 (3.20 percent) of the sanitary worker's work is a sanitary inspector. 16(6.40 percent) of the workers are Sanitary Supervisors,

and 14.40 percent of the workers are drivers. The majority of the 189 (14.40 percent) workers are working as public toilet cleaners.

TABLE 8
MONTHLY PERSONAL INCOME OF THE RESPONDENTS

Sl. No.	Monthly Personal Income (in Rs.)	No. of Respondents	Percentage
1.	Less than Rs.5,000	26	10.40
2.	Rs.5,000 – Rs.10,000	38	15.20
3.	Rs.10,000 – Rs.15,000	161	64.40
4.	Rs.15,000 – Rs.20,000	16	6.40
5.	Rs.20,000 and above	9	3.60
Total		250	100

Source: Primary data.

Table 8 shows that out of 250 respondents a majority of 161 (64.40 percent) earn a monthly income of Rs.10, 000 to Rs.15, 000 followed by 38 (15.20 percent) making Rs.5000 to Rs.10, 000. 26 (10.40 percent) of the respondents earn less than Rs.5000, 16 (6.40 percent) earn a monthly income of Rs.15, 000 to Rs.20, 000. Only 9(3.60 percent) of the respondents earn Rs.20, 000 and above. The mean monthly personal income worked out to be Rs.11, 380.

TABLE 9
THE EFFECT OF SOCIO-ECONOMIC CHARACTERISTICS ON AWARENESS
ABOUT EDUCATIONAL CHANGE USING CHI-SQUARE TEST

Socio-Economic variables	Chi-Square values	P Values	Significance
Age	16.91	0.301	Not Significant
Sex	23.54	0.001*	Significant
Personal Income	10.49	0.001*	Significant
Years of experience	6.35	0.284	Not Significant
Nature of employment	11.03	0.001*	Significant

* Significant level of 5 per cent.

The above table shows that at the 5 percent level, the correlation between awareness about educational change and socio-economic variables, namely sex, personal income and nature of employment, is important as the P-value is less than 0.05. For these variables thus, the null hypothesis has been dismissed. The remaining socio-economic factors, namely age and years of

experience, are not significantly correlated with awareness about educational change at a 5 percent level. For these variables thus, the null hypothesis has been accepted.

TABLE 10
CLEANING ITEMS USED BY PUBLIC TOILET CLEANERS

Sl.No.	Cleaning items	Number of Respondents	Percentage
1.	Water mixed with soap detergent	74	29.60
2.	Phenyl	64	25.60
3.	Plain water	55	22.00
4.	Broom	24	9.60
5.	Cleaning brush	18	7.20
6.	Use a cleaning rag	15	6.00
	Total	250	100

Source: Primary data.

It has been inferred from the respondents were using water mixed with soap detergent is (29.60%) and a mixture of Phenyl with water is (25.60%) to clean. (22.00%), (9.60%) sweeping with plain water and broom only. 7.20% of the respondents were using a brush for cleaning, and only 6.00% are use cleaning rag.

TABLE 11
FREQUENCY OF CLEANING PER DAY

Sl. No.	Frequency of cleaning	Number of Respondents	Percentage
1.	1-hour gap	14	5.60
2.	2-hour gap	26	10.40
3.	3-hour gap	49	19.60
4.	4-hour gap	65	26.00
6.	Depend upon the situation	96	38.40
	Total	250	100.00

Source: Primary data.

In this area, the frequency of cleaning the toilet per day reveals that 5.60 percent of the responded that cleaning is done 1-hour gap. The workers come to cleaning in 2-hour gap in 10.40 percent. It was a 3-hour gap for 19.60 percent of households. The workers come to cleaning 4-hour gap in 26.00 percent, and 38.40 percent of the families responded that cleaning is done depending upon the situation.

TABLE 12
ANOVA FOR AGE AND FREQUENCY OF CLEANING THE TOILET EVERY DAY

Sex	Sum of squares	df	Mean square	F	Sig
Between Groups	28.121	4	7.916	14.522	0.072
Within Groups	12.011	246	0.734		
Total	40.132	250			

The above table shows the calculated value (0.072) higher than the table value (0.05). Therefore, the Null hypothesis (Ho) is accepted, and the research hypothesis is rejected (H2). Therefore we can settle that there is no significant difference between the age of the respondents and the purpose of frequency of cleaning the toilet every day.

TABLE 13
HEALTH ISSUES OF THE PUBLIC TOILET CLEANERS

Sl. No.	Health Issues	Mean Score	Rank
1.	Injuries	38.16	VI
2.	Communicable disease	41.83	V
3.	Respiratory disease	64.9	I
4.	Eye disorders	47.20	IV
5.	Allergic problem	59.34	II
6.	Others	55.62	III

Source: Computed from Primary Data

It is evident from the Table that prioritised the order of health problems that induced by the sample respondents for cleaning the public toilet. It is inferred that by using Garrett's score. The opinion of the respondents regarding the order of health problems of respiratory disease ranked first followed to allergic problem. Other health problems like back pain, asthma etc., was ranked third and eye disorders ranked fourth respectively. communicable disorders was ranked fifth and public toilet cleaners had some injuries when they were cleaning toilets was ranked sixth respectively.

TABLE 14
SIGNIFICANT DIFFERENCES IN SATISFACTION OF PUBLIC TOILET CLEANERS
BASED ON GENDER STATUS

Sex	N	Mean	S.D	't' Value	Interpretation
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Male	164	36.85	13.83	0.6017	Not Significant
Female	86	12.71	6.94		

Source: Computed from Primary Data

The 't' value was calculated to see whether there was a significant difference in happiness with public toilet cleaning work based on sex status among the sample respondents. The calculated 't' value was 0.6017, lower than the table value of 1.97, significant at the 0.05 level. As a conclusion, the null hypothesis is accepted, and the conclusion is that there is no significant difference in satisfaction with public toilet cleaning work between sex statuses among respondents.

CONCLUSION

The findings shed light on the nature of the work performed by those responsible for cleaning public restrooms. Public toilet cleaners' conditions are also examined in the study. Public toilet cleaners have been shown to have a variety of medical and psychological issues, according to the research. Providing equal rights to federal employees can help resolve workplace conflicts. Toilet cleaners' standing will rise as a result of better education, rights, power and work opportunities for the impoverished. The quality of life of public toilet cleaners can be improved by providing safety measures, directing regular medical camps, preventing manual scavenging, and raising awareness of government programmes.

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