

A Study to Assess the Level of Knowledge Regarding Use of Personal Protective Measures among the Street Sweepers

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Abstract

Background: Street Sweepers are getting exposed to hazardous dust during their work. The health profile of the street sweepers and utilization of health services are not clearly known. Street sweepers play an important role in maintaining the health and hygiene in the communities. However, their job exposes them to various hazards while, little or no attention is paid to their health status. Street sweepers exposed to hazards directly and indirectly which can affect their health. *Aims:* The aim of the study was to explore the knowledge regarding use of personal protective measures among street sweeper. *Objective of the study:* To assess the level of knowledge regarding use of personal protective measure among street sweeper, to find the association between the level of knowledge regarding use of personal protective measure among street sweeper with selected demographic variation. *Methods and Material:* *Research design:* Descriptive study. *Setting of the study:* Setting is the physical location and condition in which data collection takes place. The study was undertaken in selected areas of Wardha. *Sample size:* 60. *Sampling technique:* Convenient sampling. *Results:* Majority of the samples 40% are from the age groups 31-40 was, 85% were from rural areas, 46.70% of them were educated up to primary standard, subject were males and females are equal, i.e. 50%, 76.70% of the street sweepers were married, 63.30% of them were belonging to other religion, 63.30% of the street sweepers were having monthly family income of ₹5000-10000, 53.30% from 10-20 years, 65% of the street sweepers were temporary, 86.70% of the street sweepers had information regarding personal protective measures and 43.30% street sweepers had information from co-workers. The study was done to assess the knowledge regarding personal protective measures among street sweeper. The result of the study shows that majority of street sweeper 53.33% were having average knowledge, 36.67% were having good knowledge, 8.33% were having poor knowledge and 1.67% were having excellent knowledge regarding use of Personal Protective Measures. There was significant association between religion and source of information and there is no significant association between age, residential area, education, gender, marital status, monthly income, length of service, major of employment, knowledge regarding Personal Protective Measures. *Interpretation and conclusions:* The analysis and interpretation of the data are organised under 3 sections as per objective of the study.

Keywords: Street sweeper; Personal protective measure; Knowledge.

Introduction

Personal protective wear has become essential part of every street sweeper. The need for personal protective measure has increases from the Factories Act 1948. It is designed to protect street sweeper from serious work place injuries or illness resulting from contact with chemical, radiological, physical, electrical, mechanical or other work place hazards. The type of Personal Protective Measure include safety helmet, face mask, head cap, safety shoes, goggles, gloves, fire resistant coat, ear muffs and ear plugs, dust mask, safety belts, paper nose mask for protecting head, face, eyes, hands and arms, feet and whole body. A study of the knowledge regarding usage of personal protective measure was carried out and an attempt was made to create awareness among the sweepers about its importance. Several types of protective measure such as safety helmet, safety shoes, goggles, gloves, fire resistant coats etc are being used. A questionnaire based on their use was prepared and results were tabulated. Exposure to the pathogenic microorganisms harbored in blood, body fluids and other potentially infectious material can lead to occupationally acquired infections to sweeper. Personal protective measure is designed to protect the skin and the mucous membranes of the eyes, nose, and mouth of sweeper from exposure to blood or other potentially infectious material.¹⁻⁴

Objective of the Study

1. To assess the level of knowledge regarding use of personal protective measure among street sweeper.
2. To find the association between the level of knowledge regarding use of personal protective measure among street sweeper with selected demographic variation.

Materials and Methods

Research design: Descriptive study.

Setting of the study: Setting is the physical location and condition in which data collection takes place.

The study was undertaken in selected areas of Wardha.

Sample: Sample consists of subset of population to participate in research study.

Sample size: 60,

Sampling technique: Convenient sampling is the selection of the most readily available or object as participants in study.

Plan for data analysis: Data was analyzed by using descriptive inferential statistics.

Major findings of the study: The analysis and interpretation of the data are organised under 3 sections as per objective of the study.

Section A: Distribution of street sweeper according to their demographic variables.

Section B: Assess the knowledge regarding use of personal protective measures among street sweeper.

Section C: Association of level of knowledge score regarding use of personal protective measures in relation to demographic variables

Results

Section A: Distribution of street sweeper according to their demographic variables.

Table 1 shows that majority of the samples are from the age groups 31-40 was 40%, 85% were from rural areas, 46.70% of them were educated up to primary standard, 50% of the subject were males and females, 76.70% of the street sweepers were married, 63.30% of them were belonging to other religion, 63.30% of the street sweepers were having monthly family income of ₹5000-10000, 53.30% from 10-20 years, 65% of the street sweepers were temporary, 86.70% of the street sweepers had information regarding personal protective measures and 43.30% street sweepers had information from co-workers.

Table 1: Percentage wise distribution of street sweepers according to their demographic characteristics

N = 60

Demographic Variables	No. of street sweepers	Percentage (%)
Age (years)		
18-30 years	15	25.0
31-40 years	24	40.0

(Contd.)

Demographic Variables	No. of street sweepers	Percentage (%)
41-50 years	16	26.7
≥ 51 years	5	8.3
Area of residence		
Urban	9	15.0
Rural	51	85.0
Educational Level		
Illiterate	5	8.3
Primary	28	46.7
Secondary	20	33.3
Higher Secondary	7	11.7
Others	0	0.0
Gender		
Male	30	50.0
Female	30	50.0
Marital Status		
Married	46	76.7
Unmarried	11	18.3
Divorced	2	3.3
Widow	1	1.7
Religion		
Scheduled Caste	16	26.7
Muslim	4	6.7
Hindu	2	3.3
Others	38	63.3
Monthly Income(Rs)		
₹5000-10000	38	63.3
₹10000-20000	10	16.7
₹20000-30000	11	18.3
>₹30000	1	1.7
Length of service		
1-10 years	23	38.3
10-20 years	32	53.3
20-30 years	4	6.7
≥30 years	1	1.7
Nature of employment		
Temporary	39	65.0
Permanent	21	35.0
Information regarding personal protective measures		
Yes	52	86.7
No	8	13.3
Source of information		
Family	6	10.0
Friends	16	26.7
Co-workers	26	43.3
Mass Media	12	20.0

Section B: Assess the knowledge regarding use of personal protective measures among street sweeper.

The assessment of knowledge regarding use of personal protective measures was done with Likert

scale. It was found that 8.33% of the street sweepers had poor level of knowledge score, 53.33% had average level of knowledge score, 36.67% had good and 1.67% of them had excellent level of knowledge score.

Minimum knowledge score was 3 and maximum knowledge score was 16. Mean knowledge score was 9.43 ± 2.78 and mean percentage of knowledge score was 47.16 ± 13.94 .

Section C: Association of level of knowledge score regarding use of personal protective measures in relation to demographic variables

There was significant association between religion and source of information and there is no significant association between age, residential area, education, gender, marital status, monthly income, length of service, major of employment, knowledge regarding Personal Protective Measures.

Discussion

A qualitative study was conducted to the knowledge regarding use of personal protective measures focus groups were used to obtain street sweeper's opinion and knowledge regarding use of personal protective measures. Sixty street sweeper of Wardha were selected. The result of the study showed street sweepers were not satisfied with the knowledge regarding use of personal protective measures.

Conclusion

The following conclusion was drawn from the findings of the present study. After the detailed

analysis, this study leads to the following conclusion.

The study was done to assess the knowledge regarding personal protective measures among street sweeper. The result of the study shows that majority of street sweeper 53.33% were having average knowledge, 36.67% were having good knowledge, 8.33% were having poor knowledge and 1.67% were having excellent knowledge regarding use of Personal Protective Measures. There was significant association between religion and source of information and there is no significant association between age, residential area, education, gender, marital status, monthly income, length of service, major of employment, knowledge regarding Personal Protective Measures.

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