



## ASSESSMENT OF OCCUPATIONAL HEALTH HAZARDS FACED BY SANITARY WORKERS IN KOLHAPUR CITY

### Management

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### ABSTRACT

The working conditions of sanitary workers have remained virtually unchanged for over a century in India. They exposed to certain health problems by virtue of their occupation. The present study was undertaken about occupational health related problems of sanitary workers in Kolhapur City. The present study was carried out at P. G. Department of Environment Management, Chhatrapati Shahu Institute of Business Education and Research, Kolhapur. The objectives of this cross sectional study to assess the effect of work environment on sanitation workers using structured interview, structured questionnaires. The data collection was done by issuing feedback from sanitary workers on structured data collection form. The collected data has analyzed by using Microsoft Excel.

### KEYWORDS:

occupational health, sanitary workers, hazards

### INTRODUCTION

The work of sanitation workers ranges from cleaning toilets and unblocking and cleaning sewers and drains, to sweeping streets and collecting garbage. This is time – consuming and tiring physical work and it brings workers in close contact with hazardous wastes. Many of the public toilets are cleaned manually by sanitation workers, rather than through mechanized suction machines. The workers who clean public toilet blocks are usually assigned the cleaning of 40-50 toilets seats. Given that water to clean these blocks is often obtain from nearby taps .it is virtually impossible for cleaners to get enough water to clean so many seats or blocks and without use of personal protective equipment it is a risk for worker for do work. Vaidya (2003) reported that a significant rise in anti-hepatitis E virus positivity ( $P < 0.05$ ) was recorded in sewage workers working for > 5 years. The risks face by workers in waste sectors go beyond the expected risk of infection and communicable diseases. cuts and wounds , animal bites , chemical burns and inhalation of toxic gases , falls and traffic accidents ,muscular –skeletal problems and mental trauma are all part of a c According to WSSCC (1998), Sanitation means interventions in reducing people exposure to disease by providing a clean environment in which to live with measures to break the cycle of diseases. This usually includes disposing and hygiene management of human and animal excreta, refuse and waste water control of disease vectors and provisions of washing facilities for personal and domestic hygiene. An outbreak of cases of airborne irritant contact dermatitis has been reported among incinerator workers employed in a sewage treatment facility (Nethercott 1980).

The frightening aspect about working with waste in countries where the regulation and norms for waste disposal are yet to be strictly enforced is that workers have no ideas just how dangerous the materials they are dealing with. When repeated on regular basis the exposure to even small amount of toxic material combined with poor general health can have disastrous cumulative results. Zuskin et al.(1993), Reported that the baseline ventilatory capacity was significantly decreased compared with the predicted values in sewage workers. With improper segregation of waste materials at the source and all types of garbage being disposed on the streets, these workers are exposed to dirt, infective organisms, and other hazardous materials like chemicals, animal excreta, and sharp objects. These factors subject the workers to skin, gastrointestinal, respiratory, and orthopedic problems, Scarcity of health data in various occupational workers is a cause of great concern. (Tiwari, 2008, Ferreira, 2001 & Medhi 2006). The physical stress of waste picking is heavy waking early and going to sleep late, long distance walked and sweeping and working in all types of weathers without leave etc. this physical stress is accompanied by an almost equal mental stress worries about children left behind by female workers and fear of accident /attacks of dogs and other animal bites etc. According to one survey by Bezwada Wilson of the Safai Karmachari Association, an estimated 12 lakh (1.2 million) scavengers are present in the country.

### METHODOLOGY

The present study was descriptive study conducted using a researcher-constructed questionnaire and face to face interviews. The questionnaire consisted of open ended and close ended items relating to the sanitary workers knowledge about the health effects associated with occupation management approaches towards occupation and gender difference in health effects associated with work.

### Sample and participants:

The sample size consisted of 50 sanitary workers. The participants of the study involved both female and male sanitary workers. However, from the total of 50 questionnaires distributed to 22 male and 28 female. Sanitary workers were asked if they had experienced health problems prior to becoming a sanitary worker. In the questionnaires form, the personal information and health problems information is collected.

### Data analysis:

The following data gathered were analyzed using Microsoft excel and presented as graphs.

- Results from sanitary workers responses
- Health problems of sanitary workers

### TABLE – 1

#### DATA COLLECTION FORM

#### Part: A Information of the worker:

Name of the worker	
Age	
Gender	M / F
Department	
Contact No.	
Height	
Weight	
Duration of Profession (In years)	
Education	Primary/Secondary/Higher Secondary
Family Type	
Family Size	
Marital Status	
Duration of work (hrs/day)	
Past History of Illness	
Bad Habit (if any)	

#### Part: B Occupational Health Related Issues:

Health Issues	Yes	No
Musculoskeletal Disorder		
Skin Problems		
Chest Pain		
Body ache		
Tiredness		

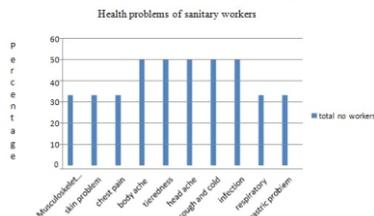
Headache		
Leg Pain		
Cough and Cold		
Infection		
Dermatitis		
Respiratory System Problems		
Gastric Problems		
Miscellaneous		

**Part: C Information about Provided Personal Protective Equipments:**

Safety Equipment	Yes	No	Used (During Work)
Mask			
Hand Gloves			
Safety Apron			
Safety Shoes			
Cap			
Miscellaneous			

**RESULTS AND DISCUSSION**

Sanitary workers were asked if they had experienced health problems after becoming a sanitary worker. The clear majority of respondents had experienced health problems after becoming a sanitary worker.



**Figure 1: Health problems of sanitary workers**

Data were gained to identify both male and female health problems faced due to sanitary occupation. body ache, tiredness, head ache health problems are more is identified. In figure 22 male and 28 female were respondents. 50 % of male and female are suffered from body ache, tiredness, head ache due to their occupation.

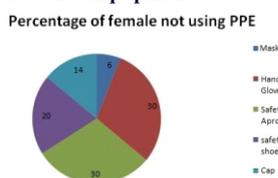
**Health Problems of Sanitary workers by gender: Male and Female**

**TABLE – 2 PROBLEMS OF SANITARY WORKERS BY GENDER**

Problem	Male (%)	Female (%)
Musculoskeletal Disorder	13	20
Skin Problems	12	19
Chest Pain	14	20
Body ache	24	28
Tiredness	24	30
Headache	25	29
Leg Pain	23	27
Cough and Cold	25	27
Infection	13	20
Respiratory System Problems	14	17
Gastric Problems	12	19

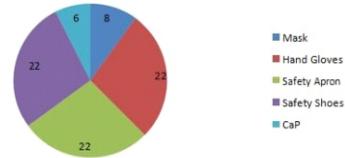
Data were gained to identify Male and Female differences in Health problems suffered through sanitary occupation. Musculoskeletal Disorder, Skin problems, Chest pain, Body ache, Tiredness, Headache, Leg pain, Cough and Cold, Infection, Respiratory disorder, Gastric Problems were identified as health issues associated with being a sanitary worker. Table 2 showed the response from male and female respectively.

**Use of Personnel Protective Equipments**



**Figure 2: Female not using PPEs**

Percentage of Male not using PPE



**Figure 3: Male not using PPEs**

For every sanitary worker provided different types of personal protective equipments for their safety from disease. But it has been observed that workers avoid to use PPEs provided to them. The ignorance of using personal protective equipments is observed in male as well as in female sanitary workers. The ignorance of using PPEs like safety apron, hand gloves is more in female than male. 30 % female avoid using shoes and hand gloves and 20% of safety shoes while 22% male avoids using safety shoes, safety apron, hand gloves etc.

**CONCLUSION**

The present study has shown that the impact of occupation on workers in terms of their health. Musculoskeletal disorder, skin problems, chest pain, body ache, tiredness were common in male and female sanitary workers. It is also concluded that sanitary workers are closely associated with various occupational health problems. There was lack of awareness observed in sanitary workers regarding the use of personal protective equipment. It should be necessary to make the awareness about personal protective equipments among the workers to avoid or to minimize the health problems.

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