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Research article

A STUDY ON MORBIDITY PROFILE OF SCISSOR MANUFACTURING WORKERS

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ABSTRACT

Introduction: In India, the life of the vulnerable and the marginalized working population is at risk as there is a lack of awareness about occupational safety and environmental hazards. The scissor manufacturing workers sector is one of the important but unorganized parts of industry of India and mainly run by private establishments. The scissors manufacturing workers hardly ever benefit from occupational health and safety provisions. **Materials and methods:** The present community based, cross-sectional study was conducted among 218 scissor manufacturing workers of small scale industry of urban slum area, Malvani in South Mumbai. The study period was from June 2010 to September 2010. **Results:** In the present study, 52.75% workers were in the age group of 20-30 yrs followed by in the age group of 30-40 yrs (32.57%). Majority, 92.66% were males. Regarding the history of addiction, 77.52% workers were using tobacco related products. The commonest health problem present in workers was acute respiratory infection (ARI) (34.86%) followed by musculoskeletal problems in 25.68% workers. **Conclusion:** As scissor manufacturing workers suffering from various morbidities, it is necessary to monitor the occupational environment and health status of the workers periodically. It is also necessary to create awareness regarding the ill effects of industrial hazards.

Key words: Morbidity profile, scissor manufacturing workers

INTRODUCTION

In the world, one of the leading causes of morbidity and mortality is occupational health risks and they are more common in developing countries¹.

In India, the life of the vulnerable and marginalized working population is at risk as there is a lack of awareness about occupational

safety and environmental hazards. In small scale industries worldwide, over 1000 million people are employed.²

The scissor manufacturing workers sector is one of the important but unorganized parts of industry of India and mainly run by private establishments. The scissors manufacturing

workers hardly ever benefit from occupational health and safety provisions. As they work for long hours, they may suffer from various health problems. Most of the health problems among them are due to the dust particles produced during various processes like heat treatment, processing, grinding, polishing, plating, edging, packing. Scissor manufacturing workers mostly suffer from various illnesses such as respiratory problems, musculoskeletal problems, eye diseases, skin problems. The various socioeconomic factors such as poverty, lack of education, poor diet, addictions, and poor working conditions also contribute to the ill health of the workers³. The present study was conducted among scissor manufacturing workers with the objective of finding common morbid conditions among them.

MATERIAL AND METHODS

The present community based, cross-sectional study was conducted among scissor manufacturing workers of small scale industry of urban slum area, Malvani in South Mumbai. The study period was from June 2010 to September 2010. Before the start of the study, ethical clearance was taken from the Institutional Ethics Committee. The study consists of 218 workers working in scissor manufacturing units. This includes all workers involved in all stages of scissor manufacturing. The workers involved in other units like cotton were not included in the

Table1: Socio-demographic characteristics of workers

Characteristics	No (%)	
Age (years)	20-30	115 (52.75%)
	30-40	71 (32.57%)
	Above 40 yrs	32 (14.68%)
Sex	Male	202 (92.66%)
	Female	16 (7.34%)
Religion	Muslim	198 (90.83%)
	Hindu	20 (9.17%)
Education	Illiterate	27 (12.39%)
	Literate	191 (87.61%)
Marital status	Married	163 (74.77%)
	Unmarried	55 (25.23%)

study. Out of 218 workers, 202 were males and 16 were females. A pre-designed, pre-tested semi structured schedule was used during interview of the workers. Before interview of the workers, they were explained clearly the purpose of the study and then verbal consent was obtained from them. Health status of the workers was assessed by asking questions regarding their health problems in the past 3 month period followed by clinical examination that included respiratory examination, eye check up. The data was analyzed using Microsoft excel and the results were expressed in percentages.

RESULTS

In the present study, 52.75% workers were in the age group of 20-30 yrs followed by in the age group of 30-40 yrs (32.57%). Majority, 92.66% were males. Religion wise, the majority were Muslims (90.83%). 12.39% were illiterate, 74.77% were married (**Table1**).

Regarding history of addiction, 77.52% workers were using tobacco related products. 17.43% were alcoholics. The commonest health problem present in workers was acute respiratory infection (ARI) (34.86%) followed by musculoskeletal problems in 25.68% workers. Asthma was present in 23.39% workers. Tuberculosis was present in 8.26% workers. Skin diseases were present in 16.05% workers. Eye problems were present in 10.55% workers (**Table 2**).

Table 2: Morbid conditions of workers

Diseases	No (%)
Persistent cough	76 (34.86%)
Asthma	51 (23.39%)
Tuberculosis	18 (8.26%)
COPD	6 (2.75%)
Musculoskeletal problems	56 (25.68%)
Skin diseases	35 (16.05%)
Eye problems	23 (10.55%)

DISCUSSION

In the present study, Majority, 92.66% workers were males. Religion wise, the majority were Muslims (90.83%). 12.39% were illiterate. 74.77% were married. Similar results were found in a study done in Meerut on the health status of scissor workers by Goel K et al ⁴.

The prevalence of tobacco use among workers was 77.52%. In a study by Goel K et al ⁴ in Meerut, the prevalence of tobacco use was found to be 85%. According to NFHS III, in India, 55.8% males in the age group of 12-60 years have been found to be consuming tobacco. The reasons of tobacco consumption may be low educational status, occupation involving hard labour work during night shift work and low socioeconomic status.

In our study, 34.86% workers were having cough followed by asthma in 23.39% workers. TB was present in 8.26% workers. In a study by Goel K et al ⁴ on scissor manufacturing workers in Meerut, 40% worker were suffering from persistent cough. Asthma was present in 28% workers. In a study of Qurratul et al ⁵, 100% workers were suffering from lung diseases. The reason for such high prevalence may be due to reason that the workers working in the scissors industry come in direct contact with the iron sparkles, suspended particles of metal, iron and cotton dust and fumes of acids, kerosene oil.

In our study apart from respiratory infections, other health complications present were musculoskeletal problems (25.68%), skin diseases (16.05%) and ear problems (10.55%). Mismatch between man and machine

may be one of the major factor contributing to musculoskeletal problems.

CONCLUSION

In scissor manufacturing workers, commonest morbidities detected were respiratory and musculoskeletal problems. In scissor industry, several hazardous conditions exist like poor ventilation, overcrowding and poor illumination which synergistically affects the health and comfort of the workers ultimately decreasing the work efficiency and hence productivity. It is necessary to monitor the occupational environment and health status of the workers periodically. It is also necessary to create awareness regarding the ill effects of industrial hazards. Use of personal protective equipments (PPE) like masks or respirators, ear plugs, earmuffs should be regularly used by workers.

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Conflict of interest: Nil

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