

“A STUDY OF OCCUPATIONAL HEALTH HAZARDS AMONG WOMEN RAG-PICKERS IN THE MARATHWADA REGION OF MAHARASHTRA STATE”

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ABSTRACT

Rag-pickers play an important, but usually unrecognized role in the Solid Waste Management system in India. They sustain themselves by collecting, sorting, and segregating waste and then trading it. By doing this they clean up around 62 million tons of waste generated annually in India. Rag-pickers are estimated between 1.5 million and 4 million in India. Maharashtra state has more than 3 lakh rag-pickers. Around 90 percent of rag-pickers are women. They work informally and independently as the majority of them do not belong to any company or organization. They belong to poor and marginalized social groups and are often vulnerable to a variety of occupational health risks and diseases. Their health and safety is in constant deterioration mainly due to the informal nature of their work. The present paper throws light on the occupational health hazards of women rag-picker in the Marathwada region of Maharashtra. The study recommends that decision-makers should uptake short-term and long-term measures in the waste management sector aiming at improving this vulnerable social group's health and safety.

Keywords: - Health, Hygiene, Safety, Hazards, Municipal Solid Waste Management, Women Rag-pickers, Garbage, Aurangabad, Marathwada, Maharashtra, Segregation, Swachha Bharat Abhiyan, Government of India

1. INTRODUCTION

A lot of garbage clearing in India is done informally, by rag-pickers who work without any job security, salary, or dignity. The majority section of rag-pickers is women who work hard like any other woman to earn money to support family, for the education of children, to get facilities, for better health facilities, and to secure the future of her family members. The municipal solid waste sector offers opportunities to earn money to unskilled and semi-skilled laborers. Work in this sector usually poses risks to the mind and body.

The environment minister has stated that India will, in another couple of decades, generate nearly thrice the waste it currently does—“165 million tons by 2030 and 450 million tons by 2050”. Only 22-28% of the waste now collected is processed or treated.¹ The growing quantity of waste has increased load and scope for the rag-pickers to collect more and more waste dumped in municipal corporations dumping ground as well as thrown on roadside bins. Rag-pickers spend an average of 8-10 hours at the dumping ground or on roads in search of waste.

The problem is particularly acute in cities. The per capita waste generation rate in Indian cities ranges between 200 and 870 grams a day and is rising. Between 2001 and 2011, the growing urban population and an increase in per capita waste generation have resulted in a 50% increase in the rubbish in Indian cities. The government traced this to changing consumption patterns and consumer behavior.² India's booming urbanization brings along with it, the problem of waste management. As more and more people are migrating to the city, the amount of waste is increasing at a high pace. Thus; Solid Waste Management has become a critical issue.³ The more and more waste collection has increased more risk to the rag-pickers as they are regularly exposed to cuts, infection, respiratory diseases, and tuberculosis apart from poverty, humiliation, harassment, and sexual abuse on the streets.⁴

The majority has no access to potable water, sanitation, and hygienically appropriate place to sleep and have meals. None of them has ever received occupational health and safety training. They are vulnerable to three major health risks: accidents, infection, and chronic diseases. Accidents could lead to injury or death and could be caused by heavy equipment, trucks, holding recyclable materials, fire outbreaks, falling from heights when dumping face is high, and buried in the waste. Infections are caused by direct contact with waste and infected wounds, infected dust, and bites from wild animals, and enteric infections transmitted by insects feeding on waste. Chronic diseases including chronic respiratory diseases result from exposure to dust and toxic and carcinogenic risks as a result of exposure to hazardous compounds, cardiovascular disorders, and heat stress due to exposure to excessive temperature, and hearing function loss result from exposure to excessive noise.⁵

The present paper describes the occupational health risks to which women rag-pickers are exposed in their work in Marathwada region that consists of eight districts in the Maharashtra state of India.

2. OBJECTIVE OF STUDY

- To study the occupational health hazards faced by the women rag-pickers
- To study physical and mental health issue among women rag-pickers
- To study the common illnesses among rag-pickers
- To study how they avail medical facilities to overcome health issues

3. RESEARCH METHODOLOGY

A cross-sectional quantitative study was done. It was basically empirical in nature. The primary data was collected using a structured questionnaire containing 65 questions using a face-to-face interview of 400 women rag-pickers. Along with it, personal detailed interviews are also conducted. 10 case studies are done to get detailed information covering all aspects of the research problem. The qualitative information is obtained during the interviews. The data obtained was edited, compiled, and analyzed by using the statistical methods and presented in the form of a percentage. Tables and charts are prepared accordingly.

The secondary sources like reference books, newspaper articles, journals, government booklets, manuals, websites, and published and unpublished work related to the subject were used. As the study was related to women rag-pickers, the Feminist Research methodology is applied in the research. It has included the basic concepts of Social research. The study is more objective than subjective. The descriptive research method is used in it.

The research was conducted across the area of dumping ground in all districts of Marathwada viz. Aurangabad, Jalna, Beed, Parbhani, Hingoli, Nanded, Latur, and Osmanabad. In addition, rag-pickers met during traveling, roaming, or resting on the roadsides were chosen for the study. Males and children below the age of 18 are excluded from the study due to ethical consideration problems and consent issues as parents of such kind of children are not available for consent on study time. The project was completed from 15th January 2019 to 31st March 2019.

The cities, towns, and villages selected for the survey are adhering Municipal Solid Waste Management rules 2016. The government of India has launched the Swachha Bharat Abhiyan began on October 2, 2014. Under this campaign, the government is conducting Swachha Survekshan (Cleanliness survey) across the nation. It has changed the scenario of Solid Waste Management both in the urban and rural parts of the nation.

4. OBSERVATION AND DISCUSSIONS

Table 1: Age wise distribution of the rag-pickers

S.No	Age categories	Total respondents	Percentage
1	15-25	14	3.5
2	26-35	85	21.25
3	36-45	198	49.5
4	45 and above	103	25.75
	Total	400	100

Table 1 show that 3.5% of rag pickers are from 15-25 age groups, which is the young population of the area. These youths are engaged in the rag-picking occupation rather than taking education. Most of them join this occupation with their parents. Most of the rag-pickers, 75% are above 36 years of age. Once they engage in this occupation, they keep on working in it. There is no age of retirement in the unorganized sector. Hence, many old women could notice in the dumping grounds across the Marathwada region. The survey revealed that due to early engagement in rag-picking, 60.5% remain illiterate. 99.5% rag-pickers are from the erstwhile “untouchable castes” also referred to as scheduled castes. It includes Buddhist, Matang, Kureshi, Bhill, Masanjogi, Wadar, etc.

Table 2: Place of working

S.No	Work Place	Total respondents	Percentage
1	Corporations dustbin / roads	208	52
2	Door to door	60	15
3	Dumping grounds	122	30.5
4	Others	10	2.5
	Total	400	100

Table 2 shows that 52% of rag-pickers collect waste from the municipal corporation’s dustbins, roadside waste, or from illegal waste dumping points. 15% collects waste from door to door, i.e. waste collected in an apartment or bungalow to give it to municipal corporations collection vehicle. 30.5% collects waste from dumping ground. As most of the dumping grounds are far away from the city and located at remote places, the rag-pickers avoid going there. The survey also revealed that 48% rag-pickers walk around 30 minutes to 1 hour and 52% walk for around 1-2 hours to reach the workplace. Workplace and traveling time makes a severe impact on rag-pickers health. The health, hygiene of rag-pickers depends on the place where they work or collect waste.

Table 3: Injuries at the workplace

S.No	Type of Injury	Total respondents	Percentage
1	Cut/abrasion due to glass, metal, stone, tin, nails etc	367	91.75
2	Dog bite	11	2.75
3	Snake bite	4	1
4	Others	18	4.5
	Total	400	100

Table 3 shows that out of 400 rag-pickers, 222 (55.5%) feel insecure at the workplace. Insecurity includes taunting from common citizens, harassment from sanitation officers, politicians and sometimes attacks from domestic

animals like cows, bulls, dogs, pigs, etc. In addition to it, 367 (91.75%) rag-pickers experience some sort of injuries like cut or abrasion due to nails, glass, tin, etc. The incident of dog and snake bites also occurs with the rag-pickers. The reason behind it is around 243 (60.75%) rag-pickers does not wear any personal protection equipment like hand gloves, masks, gumboots, apron, goggles, etc. They complain that by wearing it, they couldn't work rapidly. The rest 157 (39.25%) who wear PPE feels better than their previous experience. These PPE's are supplied either by the local self-government authority or by NGO's. The most stressful period for 91.5 % rag-pickers is summer followed by 86.75% monsoon. Deepawali festival also creates hurdles for collecting waste as some unburned firecrackers explode while collecting waste.

Table 4: Health condition of rag-pickers

S.No	Type of health issue	Total respondents	Percentage
1	Joint pain, backache	367 / 400	91.75
2	Eye leaching, watering, swelling	130 / 400	32.5
3	Vomiting, acidity	345 / 400	86.25
4	Headache	222 / 400	55.5
5	Common Cold	68 / 400	17

Table 4 shows that the most common health problem reported by the respondent are joint pain and backache, eye leaching, watering, vomiting, acidity, headache, and the common cold. Women rag-picker works in unhygienic conditions and in summer, monsoon, and winter. She left home at around 6 am after completing her daily household work like cooking, cleaning utensils, and washing cloth. She travels for around 1 to 2 hours daily to reach her destination. In the evening she collects waste and carries it on her head to the scrap dealer. More walk with huge weight results in joint pain and backache. The dead and decomposed animals, stale food emits dirty smell from the waste resulting in vomiting and headache. Working without food till evening, they cause acidity in the women rag-pickers. In addition to the above-noticed health hazards, they often affected by skin diseases like skin chemical burn, sunburn while doing work on dumping ground.

Despite many health disorders, 8.5% avoids any sort of treatment from doctors to save money. 4.4% of women rely upon home treatment. 76.6% buy pain killer pills from druggist and only 10.5% visit doctors for treatment. The women said that they avoid visiting government hospitals as they need to wait for a long time, affecting their work. The women rag-pickers face the big problem of going to the toilet at workplace. As there is less number of common washrooms in Marathwada region, they often face difficulty to discharge toilet, especially at crowded places.

Out of 400, around 111 (27.75%) women use corners of open ground for discharging toilet. 67 (16.75%) women search a tree and 160 (40 %) look a place behind a wall for this purpose. 62 (15.5%) women wait till returning back to home. This category is alarming in terms of the health of women. 280 (70%) women feel difficult during menstruation period as they do not get a proper place to change sanitary napkins.

A study found that 97 % of women Rag-pickers are showing a high percentage of mental disorder, mild depression, and mild anxiety. Very few cases of moderate depression and moderate anxiety were found. The reason for mental disorder is 21 (5.25%) crowd at the workplace, 78 (19.5%) torture by municipal corporation employees or citizens, 219 (54.75%) tension of income, 72 (18%) work after returning home, and 10 (2.5%) due to other reasons such as the death of the family member, accident of family member, etc. So in this way household condition as well as occupational condition fall them into such kind of common mental disorders.

Despite such health issues, only 40 (10%) women rag-pickers attended medical check-up camps or some workshop on awareness of health.

Table 5: Addiction in rag-pickers

S.No	Type of addiction	Total respondents	Percentage
1	Gutkha/ tobacco	367 / 400	91.75
2	Liquor	11 / 400	2.75
3	Smoking	8 / 400	2
4	Black Tea	18 / 400	4.5
5	Others	24 / 400	6

Table 5 shows that out of 400 rag-pickers, 367 (91.75%) consumes gutkha or tobacco regularly. 11 (2.75%) women rag-pickers need liquor on daily basis. When asked they said they can't afford costly liquor, hence consumes country-made, cheap liquor. 8 women (2%) like to smoke, bidi's. 18 women (4.5%) like to drink 5-6 cups of tea, especially black tea without milk. 24 women are addicted to some other things.

Table 6: Diet pattern of rag-pickers

S.No	Daily diet content	Total respondents	Percentage
1	Dal	36 / 400	9
2	Chapati	389 / 400	97.25
3	Rice	12 / 400	3
4	Vegetables	389 / 400	97.25
5	Non- vegetarian (Only Sunday)	350 / 400	87.5
6	Milk	00 / 400	00

Table 6 shows that though the rag-pickers work hard for their families, they do not get a balanced diet. Their daily diet does not include nutritional food. Out of 400 rag-pickers daily diets, only 36 (9%) includes dal and 12 (3%) includes rice. While speaking, these women said they ate dal and rice only in marriages and other ceremonies as they are costly. 389 (97.25%) women daily eat chapati either of wheat, jowar, or millet with vegetables or chutney. 350 (87.5%) strictly consumes non-vegetarian food on Sunday. Milk is not at all included in their diet.

6. CONCLUSIONS & RECOMMENDATIONS

The present study has attempted to explore the occupational health hazards of women rag-pickers in eight districts of the Marathwada region of Maharashtra. The study concludes that the rag-pickers are living in extremely poor condition. They are suffering from physical as well as mental ill-health. The reason for engaging in such kind of work is due to not having other skill to work. Lack of education and awareness is a major hurdle in their growth and prosperity. A large number of them belong to the backward caste. They work hard but earn less. Because of less earning does not take a balanced diet or visit doctors for illness. They develop habits of chewing gutkha and tobacco. They are frequently abused, both physically and mentally at home and workplace which is not secured for them.

At the same time, their security at the workplace is a major concern. They collect waste amid heavy traffic. Trash collection schedules often coincide with intense traffic hours that increase the substantial risk of rag-pickers being hit by traffic. The mix of waste develops injuries. And the rates that they are getting by selling waste to the scrap dealer are not uniform. Hence, even after collecting huge waste, they could earn a little amount.

The study suggests various measures to uplift the life of rag-pickers. It includes awareness about their rights and responsibilities. It is a need of the day to organize workshops, seminars, street plays, cultural events, religious events, the competition to make them informed, empowered about government schemes, health, and hygiene, bank loans, education, skill development facilities, legal aid, etc. Special school for their kids at the workplace and for

women at night for continuing education is need of the day. The corporate groups should take initiative to impart special job-ready training and job opportunity to the rag-pickers. Dedicated 24 by 7 hospitals should be started for rag-pickers with free medicines in every city. The message of gender equality should spread widely. It is necessary to organize the counseling center for rag-pickers. At dumping ground, toilet facility should be provided. Drinking water and hygienic shelter for eating food should be there in dumping ground. In Rainey season footwear's, raincoats, etc. should be provided. Compulsory use of mask, protective clothes and gloves on the working side should make mandatory, monitoring committees should form to address exploitation from municipal officials, police, scrap dealers, politicians, and citizens, strictly prohibition of domestic animal fed on waste material.

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