

Original article

## Study on factors determining health status of waste pickers at Dhaka city-corporation

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**Abstract:** This was a cross sectional descriptive study conducted to assess Health Status of Waste pickers collecting waste from private waste bins or dumpsters along streets & some landfill sites of Dhaka City Corporation using a semi-structured questionnaire employing purposive sampling technique with a sample size of 200 by face to face interview from January to December 2018. Most of the respondents (45%) belonged to age group within 20 to 30 years of age and 55% were male. About 45% of respondents completed primary education and half of the respondents got married and three fourth of respondents absolutely depended on waste pickings and only 28% have other sources of income where 20% had monthly income less than 3000 taka. Three fourth of respondents lived in hut in a slum area and used kacha latrine. Almost all were used supply water for consumption and More than half of the respondents (119, 59.4%) suffered from injury. There is therefore a need to facilitate improvement in their working conditions and raise awareness on their health status.

**Key note: Waste pickers, Health status, Dhaka.**

### Introduction:

A waste picker is a person who salvages reusable or recyclable materials thrown away by others to sell or for personal consumption. Millions of people worldwide make a living collecting, sorting, recycling, and selling materials that someone else has thrown away. In some countries, waste pickers provide the only form of solid waste collection, providing widespread public benefits and achieving high recycling rates. Waste pickers contribute to local economies, to public health and safety, and to environmental sustainability. While recognition for their contributions is growing in some places, they often face low social status, deplorable living and working conditions, and get little support from local governments. Waste pickers collect household or commercial/industrial waste. They may collect from private waste bins or dumpsters, along streets and waterways or on dumps and landfills. Work situations differ greatly across countries, but there are basic categories of waste pickers.<sup>1</sup>

They are adversely affected by exposure to health hazards due to unsafe handling of municipal waste.<sup>2</sup> Waste pickers in Dhaka make their living by selling recyclable

items collected from dumped waste. Most are children living on the streets or in slums where they have little access to infrastructure, a low status in society and an uncertain future.<sup>3</sup>

The working environment of waste pickers is very critical because it combines unhygienic context and risks of accidents. Sometimes children and adults even look for food among the wastes because they cannot afford to buy it. Street children sometimes waste-picking for survival than to work in the households.<sup>4</sup>

By gathering waste from public spaces, waste pickers contribute to cleanliness and help to beautify the city. Recycling is one of the cheapest, fastest ways to reduce greenhouse gas emissions. Recycling reduces emissions 25 times more than incineration does<sup>5</sup>.

Reuse and recycling of materials decreases the amount of virgin materials needed for production, conserving natural resources and energy while reducing air and water pollution<sup>6</sup>.

There is growing recognition that waste pickers contribute to the local economy, to public health and

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safety and to environmental sustainability. But they often face low social status, deplorable living and working conditions, and get little support from local governments. Reuse and recycling of materials decreases the amount of virgin materials needed for production, conserving natural resources and energy while reducing air and water pollution<sup>7</sup>.

Thus waste pickers are extremely vulnerable owing to intense risks and impending dangers for their overlapping living and working environments and are, therefore, deserve to be a crucial target for health programs and policies. With these aforesaid considerations, the present study was undertaken to explore the health status of this particular vulnerable population.

**Method & Materials:** A cross-sectional study was conducted to explore Health Status of Waste pickers in four areas of Dhaka City Corporation namely Mirpur area, Bansree area, Dhanmondi area & Sadarghat area. Data were collected by using pre-designed, pre-tested, semi-structured interviewer administered questionnaire & check list. with observations by some trained volunteers from January to December, 2018. The sample size was 200 & selected by non-probability purposive sampling method. After collection, data were checked to exclude any error or inconsistency.

**Result:** Out of 200 respondents (110,55%) were male & 90,( 45%) were female. (figure 1). About 90,( 45%) respondents age were within 20 to 30 years of age followed by 48,( 24%) within 10 to 20 years, 34,( 17%) within 30 to 40 years, 15,( 8%) more than 40 years and 13, (7%) less than 10 years respectively. Among the respondents 90,(45%) respondents were illiterate and 40,( 20%) within primary level, 70,( 35%) never attended any formal or non-formal school. Half of the respondents were married and three fourth of respondents absolutely depended on waste pickings and only 28% have other sources of income where 20% had monthly income less than 3000 taka & only 6% have more than 12,000 Taka. Almost 172,( 86%) of respondents lived in hut in a slum area (Table 1). Majority of them used Kacca Latrine (80%) (Figure II). Almost all 188(94%) used supply water for consumption. (Figure III) More than half of the respondents 119, ( 59.4%) suffered from injury followed by 85,(42.30%) itching 55, (19.1%) diarrhea, 63, (21.9%) cough and cold, 40, (20.10%) warm infestation, 6, (3.10%) suffered from jaundice. (Figure IV)

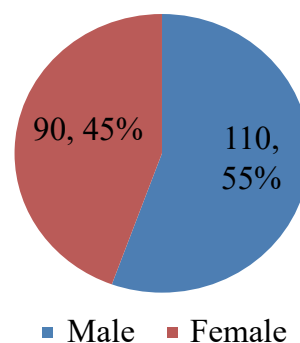


Figure 1: Distribution of respondents according to sex

Table 1: Demographic characteristics of respondents (n = 200)

Age in years	Frequency (n)	Percentages (%)
Less than 10	13	7
10 - 20	48	24
20 – 30	90	45
30 - 40	34	17
More than 40	15	8
Status of Education		
Informal education	70	35
Illiterate	40	20
Primary	90	45
Marital status		
Unmarried	82	41
Married	100	50
Divorced	04	2
Widow	14	7
Monthly Income in Taka		
Less than 3000 Tk	40	20
3000 – 6000 Tk	100	50
6000 – 12.000 Tk	48	24
More than 12,000 Tk	12	6
Type of house		
Slum & shanty	172	86
Tin shed	26	13
Half building	02	1
Total	200	100

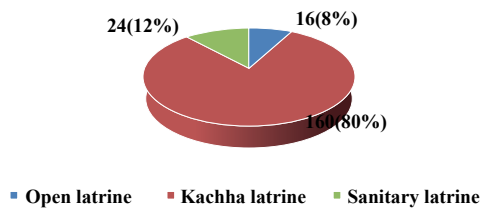


Figure 2: Sanitary system of respondents?

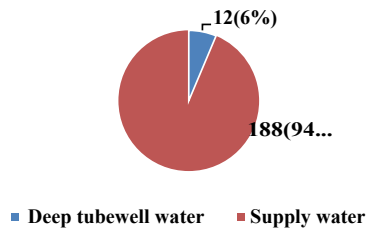


Figure 3: Consumption of water

\* Multiple responses

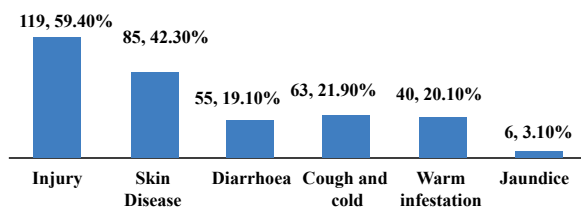


Figure 4: Health problems of the respondents (n = 200)

**Discussion:** The present study was aimed to assess health status of waste pickers. Total 200 waste pickers were selected. It was found that 90(45%) respondents age were within 20 to 30 years of age followed by 48(24%) were within 10 to 20 years, 34(17%) were within 30 to 40 years, 15(8%) more than 40 years and 13(7%) less than 10 years respectively. In another study it was indicated that nearly 50% of these waste pickers are children under the age of 15, and about half of them are girls.<sup>4</sup> On the other hand, a study in Dharan Municipality, Nepal showed that sixty-eight percent of the street children were between 11-15 years of age and among them ninety-five percent were males<sup>8</sup>. Among the respondents 90,(45%) respondents were illiterate and 40, (20%) were within primary level, 70, (35%) never attended any formal or non-formal school. Half of the respondents were married. About 110,(55%) were male & 90, (45%) were female. Majority of waste pickers absolutely depends on waste pickings and only few percentages have other sources of income from where only 6% had monthly income more than 12,000 Taka. They were more likely to live in overcrowded, poorly ventilated slum. In the 2006 Bangladesh Urban Health Survey the mean household size varied little across all three domains: slums (4.5 members), non-slums (4.6 members), and district

municipalities (4.9 members).<sup>9</sup> A study in Cambodia found that most waste pickers come from large households of greater than 5 members, the average waste picker households having 5.42 persons. Majority of them used Kacca Latrine. Almost all respondents used supply water for consumption. More than half of the respondents suffered from injury and rest got itching, skin diseases, diarrhea, cough and cold. It was reported that the most prevalent types of occupational risks include: bites from insects and rats, cuts and bruises, skin disease, respiratory and gastro-intestinal tract problems, eye irritation, body aches, general weakness, and frequent fever.<sup>4</sup> Headache problems appear to be a prevalent condition among waste pickers, and have shown to be one of the recurring complaints in other studies as noted by Nguyen et.al.<sup>11</sup>

**Conclusion:** Health problems among waste-pickers showed a wide range. Major health problems were injury, skin disease, common cough and cold, and diarrhoea and jaundice. In this study found that more than half of the respondents had injury on the basis of spot observation. Waste pickers, need to have better employment opportunity, basic literacy program and regular health checkup facilities. Better academic and research policy should be conducted among waste pickers in order to formulate a way out from such predicament.

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