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Work pattern and problems faced by scrap collectors

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Abstract
Scrap or waste collectors of India collect scrap/ waste from individual households, sort and process the scrap and sell the materials to larger recyclers/ scrap dealers. It was found that majority of the respondents (43%) belonged to 30-35 years of age, were married (66%), were educated up to primary class (55%) followed by illiterate (24%), were from joint family type (59%), had six to ten members in the family (51%); 52.00 percent respondents' monthly income was Rs. 10000-14000. It was found that all the scrap collectors had suffered minor cuts and 32.00% had suffered major cuts, 34.00% had suffered skin irritation and 20.00% had suffered burn (due to acid) during work. So, knowledge should be imparted to them to use safety gloves. All the respondents (scrap collectors) had to return borrowed money daily in the evening to the scrap dealers who give less profit to them. So, 95.00% of the respondents felt that they had lack of sufficient income. It was found that 62.00 per cent of the respondents used 'Loading *rickshaw*' for scrap collection followed by 31.00% of the respondents who used motorcycle with cart for scrap collection. Due to poor financial condition of the scrap collectors, subsidy should be provided by the government to scrap collectors for purchasing loading *rickshaw* or any other vehicle.

Keywords: Anesthesia, horse, setaria digitata, eye worm

Introduction
Waste is an unavoidable by-product of human activities. Economic development, urbanization and improved living standards in cities contribute to an increase in the quantity and complexity of generated waste. Millions of people worldwide make a living from collecting and processing materials that someone else throws away.

Wath *et al.* (2010) [1] revealed that urban India (about 377 million people) generates 62 million tonnes of municipal solid waste each year, of this about 43 million tonnes (70%) is collected and 11.9 million tonnes (20%) is treated. About 31 million tonnes is dumped in landfill sites, which is about 50% of the waste left completely untreated and toxic. The urban India's current consumption pattern only suggests a hike in this graph over the next decade.

Scrap or waste collectors of India, the unsung environmental heroes collect scrap/ waste from individual households, sort and process the scrap, and sell the materials to larger recyclers for very small amounts of money.

Roaming scrap collectors *(raddiwalas or kabadiwalas)* who come to the doorstep of homes, usually own a bicycle, purchase high-value recyclable materials such as newspapers, plastic, glass, unsoiled mixed paper, cartons and metal and sell large quantities of well-sorted clean material at a higher price to a specialized waste trader. (Singh, 2021) [2].

Objectives:
The present study was undertaken with the objective to study the work pattern and problems faced by scrap collectors.

Methodology
Sampling procedure
For the first two objectives, the sample comprised of 100 scrap collectors from four districts who were selected randomly (25 respondents from each district). For the 3rd objective, out of these 100 respondents, 30 respondents were purposively selected (15 respondents each from Hisar and Dadri district) who were found to be having low pre-exposure knowledge and were interested and willing to cooperate for undergoing the study on acceptability of the device modified by the researcher.

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Tools and techniques of data collection: A well-structured and pretested interview schedule was developed in accordance with the objectives of the study for collecting the data.

Results
Background profile of the respondents
Age: Table 1 shows that the majority of the respondents i.e.

43.00% belonged to the age group 30-45 years, followed by 15 to 29 years i.e. 37.00% and only 20.00% were between 46 to 60 years of age.

Marital status: Data revealed that majority of the respondents (66.00%) were married and 30.00% of them were unmarried.

Table 1: Background profile of the respondents (n=100)

Sr. No.	Variables	f (%)
1.	**Age (in years)**	
	15-29	37.00
	30-45	43.00
	46-60	20.00
2.	**Marital status**	
	Married	66.00
	Unmarried	30.00
	Widower	04.00
3.	**Family type**	
	Nuclear	41.00
	Joint	59.00
4.	**Family size**	
	<5 members	34.00
	6-10 members	51.00
	11-15 members	15.00
5.	**Education**	
	Illiterate	24.00
	Up to primary class	55.00
	Up to Middle class	21.00
6.	**Monthly income of the respondents (Rs.)**	
	5000-9000	40.00
	10000-14000	52.00
	15000-20000	08.00

Family type: It is apparent from table 1 that majority of the respondents belonged to joint type of family (59.00%) and 41.00% of the respondents belonged to nuclear type of family.

Family size: It was found that 51.00% of the respondents had family size of 6-10 members followed by 30.00% of respondents having less than 5 members and only 15.00% of the respondents had family size of 11-15 members.

Education: Majority of the respondents i.e. 55.00% were educated up to primary class followed by 24.00% who were illiterate and 21.00% of the respondents had studied up to middle class.

Monthly income of the respondents: Monthly income of majority of the respondents was Rs. 10000-14000 (52.00%) followed by Rs. 5000-9000 (40.00%) and only 08.00% of the respondents had monthly income of Rs. 15000-20000.

Work pattern of the scrap collectors

Table 2: Period/ years of respondents engaged in scrap collection (n=100)

Sr. No.	Period (years)	f (%)
1.	<5	10.00
2.	5-10	37.00
3.	10-15	41.00
4.	15-20	12.00

It was found that majority of the respondents (41.00%) were collecting scrap for the last 10-15 years followed by 37.00% who worked as scrap collectors for the last 5 to 10 years and 12.00% of the respondents worked from last 15-20 years; only

10.00% of the respondents were collecting scrap for less than 5 years of the respondents purchased scrap along with one family member.

Table 3: Vehicles used for scrap collection (n=100)

Sr. No.	Vehicles	Own	On rent	Total
1.	Loading *Rickshaw*	41.00	21.00	62.00
2.	Motorcycle with cart	26.00	5.00	31.00
3.	Tempo	4.00	3.00	7.00

Vehicles used for scrap collection

Table 3 shows that 62.00 per cent of the respondents used 'Loading *rickshaw*' for scrap collection followed by 31.00% of the respondents who used motorcycle with cart and only 7.00% of the respondents used tempo for scrap collection.

Majority of the respondents (71.00%) had their own vehicle for scrap collection and 29.00% respondents used vehicles on rent.

Table 4: Average distance covered per day for scrap collection (n=100)

Sr. No.	Distance (km)	f (%)
1.	<5	2.00
2.	5-10	58.00
3.	10-15	33.00
4.	15-20	7.00

Table 4 reveals that more than half of the respondents (58.00%) covered total 5 to 10 kilometres distance per day for the scrap collection followed by 33.00% who travelled 10 to 15 kilometres, 7.00% of the respondents travelled 15 to 20 kilometres per day and only 2.00% of the respondents travelled less than 5 kilometres per day for scrap collection.

Table 5: Average time spent per day for scrap collection (n=100)

Sr. No.	Hours per day	f (%)
1.	6-8	78.00
2.	8-10	22.00

The above Table 5 shows the average time spent per day by respondents for scrap collection.

It was found that 78.00% of the respondents on an average worked for 6-8 hours followed by 22.00% who worked for 8 to 10 hours per day.

Problems faced by the respondents

Table 6: Work-related problems faced by the respondents (n=100)

Sr. No.	Category	f (%)
I.	**Physical problems**	
1.	Cuts due to sharp objects	
i.	Major cuts	32.00
ii.	Minor cuts	100.00
2.	Burn (due to acid)	20.00
3.	Too much discomfort and sweating due to scorching heat in the summer season	93.00
II.	**Health problems**	
1.	Skin irritation/ skin allergy	34.00
2.	Eye irritation	20.00
3.	Body pain	61 .00
4.	Tiredness/ fatigue	63 .00
III.	**Financial problems**	
1.	They have to return borrowed money daily in the evening to the scrap dealers who give less profit to them	100.00
2.	Lack of sufficient income	95.00
IV.	**Psychological problems**	
1.	Tension due to poor financial condition	89.00
2.	Anxiety/ fear due to poor financial condition	31.00

Work-related problems faced by the respondents

Table 6 shows the problems faced by the scrap collectors during work. Regarding physical problems faced by them, it was found that all 100.00% of respondents had suffered minor cuts during work; 32.00% of respondents had faced major cuts; 20.00% of respondents had faced burn due to acid, and 93.00% per cent respondents felt discomfort and sweating due to scorching heat in the summer season. Regrading health problems faced by the scrap collectors, 63.00% had felt tiredness and fatigue, 61.00% of the respondents reported body pain, 34.00% felt the problem of skin irritation/allergy and 20.00% of respondents felt the problem of eye irritation, All the respondents used to take money from the scrap dealers daily in the morning and returned it in the evening after selling the scrap to them; 95.00% of the respondents felt that they had lack of sufficient income. Regarding psychological problems faced by the scrap collectors, 89.00% of the respondents had tension and 31.00% of respondents had anxiety/ fear due to poor financial condition.

Conclusion

From the present investigation, it was found that all the scrap collectors had suffered minor cuts and 32.00% had suffered major cuts, 34.00% had suffered skin irritation and 20.00% had suffered burn (due to acid) during work. So, knowledge should be imparted to them to use safety gloves.

62.00 per cent of the respondents used 'Loading *rickshaw*' for scrap collection followed by 31.00% of the respondents who used motorcycle with cart for scrap collection. Due to having poor financial condition, the subsidy should be provided by the government to scrap collectors for purchasing loading *rickshaw* or any other vehicle.

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