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RESEARCH ARTICLE

Study on utilization of healthcare and social security schemes among street vendors in an urban area of Bengaluru

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ABSTRACT

Background: Access to healthcare may vary across countries, groups, and individuals, largely influenced by social and economic conditions as well as the health policies in place. In the Indian scenario, most health-care expenses are paid out-of-pocket by patients and their families, rather than through insurance or social security schemes. Health-seeking behavior denotes visiting the health-care facility for need of care during diseases, injury and health related events which includes public hospitals, clinics or privately owned hospitals. There is a lack of inadequate information on health-care utilization and social security benefits availed by street vendors in India. Hence, the study was planned to look into issues of health-care utilization and related issues. **Aims and Objectives:** To assess the utilization of health care and social security schemes among the street vendors of urban area of Bengaluru and to find the determinants of health-care utilization among them. **Materials and Methods:** A community-based, cross-sectional, descriptive, and explorative study was undertaken for 2 months from May to June 2021 among 160 street vendors in urban area of Bengaluru. Data on socio-demographic factors, vending type and nature, social security benefits, health insurance, and health-care utilization were collected from each vendor. The prevalence of utilization of healthcare and social security schemes among street vendors were estimated. **Results:** Majority of the vendors (77% males and 82.4% females) visit health-care center only when the illness was severe and only 18.8% of the vendors seek healthcare for all types of illnesses. Over-the-counter medicines were preferred than visiting a health-care facilities by 71.3% of the street vendors and majority of them were males (76.3%). The part time vendors (38.5%) used more than one health facility, i.e., government, polyclinic, and medical college facilities, whereas (27.2%) of full time vendors were dependent on government health-care facilities. The fixed place vendors (23.8%) and mobile cart vendors (32.7%) used government health-care facilities. Majority of the fruit vendors used government facilities. There were 20% of the street vendors who were aware of only Indira Gandhi National Old Age Pension Scheme (IGNOAPS), 18.8% aware of only Janani Suraksha Yojana (JSY) Scheme, 28% aware of Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), 8% were aware of Pradhan Mantra Shram Yogi Maandhan Yojana (PM-SYM), and 9.4% aware of all the above schemes as applicable. Almost two third of the study population (69% of males and 61.8% of females) were not availing any of the social security schemes. 71.4% of males above 60 years of age were availing IGNOAPS, 31% of females in the reproductive age group availed JSY as applicable, 12% availed AB-PMJAY, 67.6% of the fixed place vendors, and 67.3% of the mobile cart vendors did not avail any social security scheme. None of the vendors had any type of medical health insurance

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and only 59.4% of the vendors were below poverty line card holders. **Conclusion:** Most of the vendors and their family members used government facilities (26.9%) and only 44.4% were availing the social security schemes. Timing of vending (part/full time), time of visit of different health-care facilities, and financial status were the important determinants of utilizing healthcare. Therefore, government run health-care centers should be made more accessible and available to the unorganized working class.

KEY WORDS: Street Vendors; Healthcare Utilization; Social Security; Urban

INTRODUCTION

Access to healthcare may vary across countries, groups, and individuals, largely influenced by social and economic conditions as well as the health policies in place. In the Indian scenario, most health-care expenses are paid out-of-pocket by patients and their families, rather than through insurance or social security schemes.

United Nation has adopted a resolution that health is the fundamental right of every human being and the state is responsible for providing health cover to its citizens. In India, the workers in the unorganized sector constitute about 93% of the total work force in the country. The government has been implementing some social security measures for certain occupational groups, but the coverage is miniscule.[1] A street vendor is broadly defined as a person who offers goods or services for sale to the public without having a permanent built up structure but with a temporary static structure or mobile stall (or headload). Street vendors may be stationary by occupying space on the pavements or other public/private areas, or may be mobile in the sense that they move from place to place carrying their wares on push carts or in cycles or baskets on their heads or may sell their wares in moving bus etc.[2]

The majority of the workers are still without any social security coverage. The unorganized sector workforce does not fully cover social protection-employment security (no protection against arbitrary dismissal), work security (no protection against accident and health risks at the workplace), and social security (health benefits, pensions and maternity benefits). Certain groups of unorganized sectors such as street vendors, construction workers, mechanics, and electricians have low and no steady income, poor working conditions and lack of social security.

Health-seeking behavior denotes visiting the health-care facility for the need of care during diseases, injury, and health-related events which includes public hospitals, clinics, or privately owned hospitals. Micro Health Insurance schemes addresses such issues at the grass root level and eliminates the financial barriers for obtaining quality treatment. Various insurances or schemes are popularly implemented in Karnataka, such as Pradhan Mantra Shram Yogi Maandhan Yojana (PM-SYM), Pradhan Mantri Jeevan Jyothi Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), private health cards etc.

There is the lack or inadequate information on health-care utilization and social security benefits availed by street vendors in India. Hence, the study was planned to look into the issues of health-care utilization and related issues.

Objectives

1. To assess the utilization of health care and social security schemes amongst the street vendors of urban area of Bengaluru
2. To find the determinants of health-care utilization among them.

MATERIALS AND METHODS

This community-based, cross-sectional, descriptive, and exploratory study was undertaken for 2 months from January to February 2022 among the street vendors of urban field practice area of Dr. B. R. Ambedkar Medical College, Bengaluru, after taking approval from the Institutional Ethical Committee.

A total of 200 street vendors were estimated to be in the study area covering approximately a distance of 4 sq.km area (Shampura, Sultanpalya, Kavalbyrasandra, DJ Halli) as per Local Town Vending Committee report 2020. We used universal sampling approach and all the vendors encountered in the study area were encouraged to participate in the study. Around 160 street vendors who were available for two consecutive visits were interviewed using a predesigned semi-structured oral questionnaire. The information was collected by interviewing them at their vending place after tracing them in the street and written informed consent was taken after explaining to them about the importance of the study findings. Data on socio-demographic factors, vending type and nature, social security benefits, life and health insurance, healthcare utilization were collected from each vendor.

The information thus collected was entered into Microsoft excel and analyzed with the help of Statistical Package for the Social Sciences (SPSS Inc., Released 2009. Predictive Analysis Software Statistics for Windows, Version 18.0. Chicago, US: SPSS Inc.). Prevalence of healthcare utilization among

street vendors was estimated. Chi-square test was used to test the statistical association of healthcare utilization with the determinants. $P < 0.05$ was considered for statistical significance.

RESULTS

The study was conducted among 160 vendors of different types in the assigned area by tracing them at their respective place of vending or the street. There were 126 males and 34 female vendors. The mean standard deviation (SD) age of the study population was 38.93 (+13.34) years. The mean age (SD) of the male and female population were 39.023 (+14.10) years and 38.61 (+10.21) years respectively. Majority of the vendors were Muslims (55.6%) and Hindus (43.8%). None of the vendors had private health insurance for own or their family members.

Table 1 shows that out of the 160 subjects 78.8% of the vendors were males and 21.3% were females. Majority of the males (80.2%) and females (73.5%) were fruit vendors. The selection of type of vending depends on availability of food items, profit and durability. This could be the reason for selection of fruit vending as a common type of vending among men and women especially of the age group 31–50 years.

Most of the male vendors were using mobile cart (38.9%) compared to the females (11.8%). Mean distance travelled per day (km) for mobile cart vendors were 11.95 km (+6.06), 12 km (+6.1) and 11.25 km (+6.29) for total mobile cart vendors, male and female vendors respectively. Physical energy is needed to pull weight, walk for long distances and so less females were doing mobile cart vending. 8.1% of the vendors were doing part time vending.

Most of the vendors (33.8%) were in the age group 31–40 years. There were 8.8% of males over 60-year-old working. In the age group of 15–20 years there were 7.5% of the study population.

Table 1: Socio-demographic factors among street vendors

Factors	Levels	Male *n* (%)	Female *n* (%)	Total *n* (%)
Study population (Total)		126 (78.8)	34 (21.3)	160 (100)
Nature of vending	Fruit	101 (80.2)	25 (73.5)	126 (78.8)
	Vegetable	7 (5.6)	2 (5.9)	9 (5.6)
	Flower	5 (4.0)	5 (14.7)	10 (6.3)
	Mixed	2 (1.6)	–	2 (1.3)
	Others*	11 (8.7)	2 (5.9)	13 (8.1)
Type of vending	Fixed place vendors	77 (61.1)	30 (88.2)	107 (66.9)
	Mobile cart vendors	49 (38.9)	4 (11.8)	53 (33.1)
Timing of vending	Part time	11 (8.7)	2 (5.9)	13 (8.1)
	Full time	115 (91.3)	32 (94.1)	147 (91.9)
Age group in years	15–20	11 (8.7)	1 (2.9)	12 (7.5)
	21–30	29 (23)	6 (17.6)	35 (21.9)
	31–40	39 (31)	15 (44.1)	54 (33.8)
	41–50	20 (15.9)	7 (20.6)	27 (16.9)
	51–60	13 (10.3)	5 (14.7)	18 (11.3)
	>60	14 (11.1)	–	14 (8.8)
BPL card holder	Yes	71 (56.3)	24 (70.6)	95 (59.4)
	No	55 (43.7)	10 (29.4)	65 (40.6)
Total earnings per month (Rupee)	<5000	5 (4.0)	–	5 (3.1)
	5001–10000	35 (27.8)	7 (20.6)	42 (26.3)
	10001–15000	55 (43.7)	14 (41.2)	69 (43.1)
	15001–20000	13 (10.3)	3 (8.8)	16 (10)
	20001–25000	4 (3.2)	4 (11.8)	8 (5)
	>25001	14 (11.1)	6 (17.6)	20 (12.5)
Mean (SD) earning of family (Rupee)	Fixed place vending	15136 (+9140.2)	17266 (+8258.5)	15744 (+8910.5)
	Mobile cart vending	14088 (+6573.9)	16850 (+9001.3)	14289 (+6711.3)
Education	No Schooling	66 (52.4)	21 (61.8)	87 (54.4)
	Primary School	14 (11.1)	7 (20.6)	21 (13.1)
	Higher Schooling	45 (35.7)	6 (17.7)	51 (31.9)
	Graduate/Postgraduate	1 (0.8)	–	1 (0.6)

*Others-Umbrella's, Toys, Clothes, Carpets, etc., SD: Standard deviation, BPL: Below poverty line

Approximately 60% of the subjects had below poverty line (BPL) Card facilities and were more among females. Most of them, 43.7% of males and 41.2% of females' total family income is between Rs. 10001 and 15000. Majority (95%) of the families have only one member working as a Street Vendor. The total Mean income of the study population was Rupee 15244.38 (+8228.6). Among the fixed vendors the females had a mean family income of Rupee 17266.67 (+8258.5) compared to the males whose mean family income was Rupee 15136 (+9140.2). Among the mobile cart vendors, the females had a higher mean family income of 16850 (+9001.3) compared to the males who had a mean family income of 14088.24 (+6573.9). The fixed vendors had a higher mean family income 15744.76 (+8910.5), compared to the mobile cart vendors' mean family income 14282.09 (+6711.3) because the fixed vendors had more than one earning member in the family whereas the mobile cart vendors were the sole earning members [Table 1].

Of the 160 study population, 54.4% of the total did not have any schooling. 35.7% of males have had higher schooling, and 20.6% of the females have studied up to primary school. Only one male had a graduate degree. None of them had a professional degree. This shows that not necessarily the not educated would do vending on the streets but also many people who had studied above middle school would do business or be self-employed, either as part time or full time.

Over the counter (OTC) medicines were preferred than visiting a health care facilities by 71.3% of the street vendors and majority of them were male (76.3%). The various reasons given for their dependence on healthcare were whenever they are free from work, after closing the sale of items, depends on severity, convenient timing of them, and need to take leave from work.

Majority of the vendors (77% males and 82.4% females) visit health care center only when the illness was severe and only 30 (18.8%) of the vendors seek healthcare for all types of illnesses. OTC medicines were preferred for common conditions like headache, fever, body ache, cold, cough etc. Seeking health care was perceived as dependent on their financial status by 92.1% males and 91.2% females.

Table 2 shows that all males and females were seeking some form of treatment for their illnesses.

Of the total 160 people 26.3% were dependent on government hospitals for health care out of which 30.2% were male and 14.7% were female. None of the subjects went to traditional healers, spiritual healers or used home remedies.

The part time vendors (38.5%) used more than one health facility i.e., government, polyclinic and medical college facilities, whereas (27.2%) of fulltime vendors were dependent on government health-care facilities. Only 23.8% of fixed place vendors and 32.7% of mobile cart vendors used government health-care facilities.

Majority of the fruit vendors (72.1%) used government facilities, whereas 55.6% vegetable vendors used polyclinics. 30.1% of fruit, 11.1% of vegetable, 60% of flower, and 15.4% of other vendors used more than one, i.e., government, polyclinic, and medical college health care facilities.

Time of Visiting Health-care Center by Gender

Most of the people (89.4%) visited health care facilities whenever convenient or whenever they were free from work. 89.7% males and 88.2% females visit health-care centers depending on other reasons (whenever free from work, closes shop, depends on severity of illness, takes leave from work, and convenient). Only 3.1% of the people visited health care facilities in the morning, 1.9% in the afternoons and 5.6% in the evenings. This shows the importance of availability of healthcare in their convenient timings.

Table 2: Distribution of street vendors by gender, different vending, and dependency on healthcare

Factor	Level	Government *n* (%)	Private hospital[#] *n* (%)	Multiple facilities* *n* (%)	*P*-value
Total		43 (26.9)	69 (43.2)	48 (30)	
Gender	Male	38 (30.2)	53 (42.1)	35 (27.7)	0.53
	Female	5 (14.7)	16 (47.1)	13 (38.2)	
Timing of vending	Part time	3 (23.1)	5 (38.5)	5 (38.5)	0.001
	Full time	40 (27.2)	64 (43.6)	43 (29.3)	
Type of vending	Fixed place	25 (23.8)	50 (47.7)	30 (28.6)	0.51
	Mobile cart	18 (32.7)	19 (38.1)	18 (32.7)	
Nature of Vending	Fruit	31 (24.6)	57 (45.4)	38 (30.2)	0.46
	Vegetable	2 (22.2)	6 (66.7)	1 (11.1)	
	Flower	2 (20)	2 (20)	6 (60)	
	Mixed	1 (50)	–	1 (50)	
	Others**	7 (53.8)	4 (30.8)	2 (15.4)	

[#]Private hospital includes private practitioners, medical colleges, polyclinics, *Multiple facilities - Government and Medical College; Government and Polyclinic; Medical College and Polyclinic; Private practitioner and Over the counter, **Others-Umbrella's, Toys, Clothes, Carpets, etc.

Table 3 shows that 66.7% of those who visit health-care center in afternoon timings were utilizing government health facility, whereas 33.3% of vendors visiting health-care center in evening were going to polyclinics. Medical colleges were visited by only 14.4% of the street vendors.

Timing of vending (part/full time), time of visit of different healthcare facilities, and financial status were the important determinants of utilizing healthcare.

Figure 1 shows that 51.9% of the street vendors were unaware of any of the social security schemes. 20.6% of males and 17.6% of females were aware of Indira Gandhi National Old Age Pension Scheme (IGNOAPS). 22% of males and 50% of females were aware of AB-PMJAY, 8% of males and 9% of females were aware of PM-SYM scheme. None of them were aware of PMJJBY and PMSBY.

Almost two-third of the study population (69% of males and 61.8% of females) were not availing any of the social security schemes. 71.4% of males above 60 years of age were availing IGNOAPS. 31% of females in the reproductive age group availed Janani Suraksha Yojana (JSY) as applicable. 46.2% of the part time vendors and 60.5% of the full time vendors avail the BPL card.Figure 2 shows that 66% of the full time vendors were not aware of any social security schemes. 8.2% of full time vendors were aware and were utilizing IGNOAPS while 23.1% of those aware of JSY were availing it.

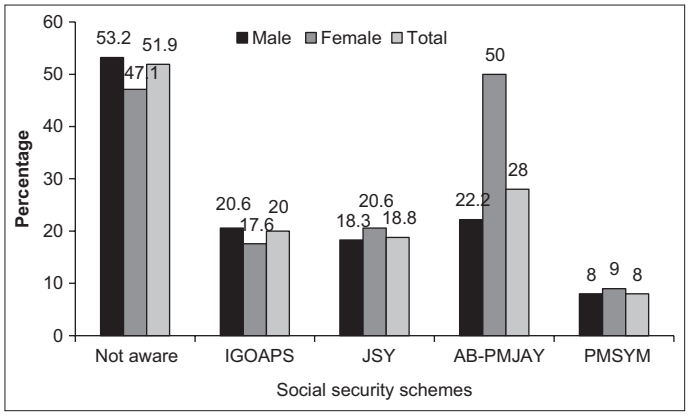

Figure 1: Distribution of street vendors regarding awareness of social security schemes

67.6% of the fixed place vendors and 67.3% of the mobile cart vendors did not avail any social security scheme. Majority of the fixed place (20%) and majority of mobile cart (25.5%) vendors were availing the JSY scheme.

Most of the fruit vendors (65.1%) were not availing any type of social security. 9.5% of fruit vendors, and 11.1% of vegetable vendors that were aware of IGNOAPS were utilizing it, whereas, 22.2% of fruit vendors and 22.2% of vegetable vendors that were aware of JSY were utilizing it.

DISCUSSION

Most of the vendors (33.8%) were in the age group of 31–40 years, which was similar to the findings observed in the study conducted in one of the Indian cities.[3]

Majority of the males (80.2%) and females (73.5%) were fruit vendors. The selection of type of vending depends on the availability of food items, profit, and durability. This could be the reason for the selection of fruit vending as a common type of vending among men and women, especially of the age group 31–50 years.

Most of the male vendors were using mobile cart (38.9%) compared to the females (11.8%). Physical energy is needed to pull weight, walk for long distances, and so less females were doing mobile cart vending.

In our study, the daily income of considerable proportion of respondents (43.1%) was between Rs. 333 and Rs.500 (average monthly income of Rs. 10001–15000). The daily earning of 27.8% male vendors and 20.6% of female vendors ranged from Rs. 166 to Rs. 333 (average monthly income of Rs. 5001–10000). A study by Bhowmik for National Alliance of Street Vendors of India found daily earnings ranged between Rs. 50 and Rs. 100/day.[4]

Panwar and Garg in their study found daily income of 70% to be Rs. 100–300/day and 25% to be Rs 300/day.[5] The daily income was found to be Rs. 125–250 among 43.50% and Rs. 250–500 among 37.75% by Saha in their study on Working Life of Street Vendors in Mumbai.[6]

Table 3: Time of visiting health-care center by different health-care facilities

Time of visit	Dependency on healthcare						
	Government *n* (%)	Private hospital *n* (%)	Private practitioner *n* (%)	Over the counter medicine *n* (%)	Medical college *n* (%)	Polyclinic *n* (%)	Multiple facilities* *n* (%)
Morning	1 (20)	–	1 (20)	–	–	1 (20)	2 (40)
Afternoon	2 (66.7)	–	–	–	1 (33.3)	–	–
Evening	–	2 (22.2)	2 (22.2)	–		3 (33.3)	2 (22.2)
Others**	40 (28)	4 (2.8)	2 (1.4)	1 (0.7)	22 (15.4)	30 (21)	44 (30.8)
Total	43 (26.9)	6 (3.8)	5 (3.1)	1 (0.6)	23 (14.4)	34 (21.2)	48 (30)

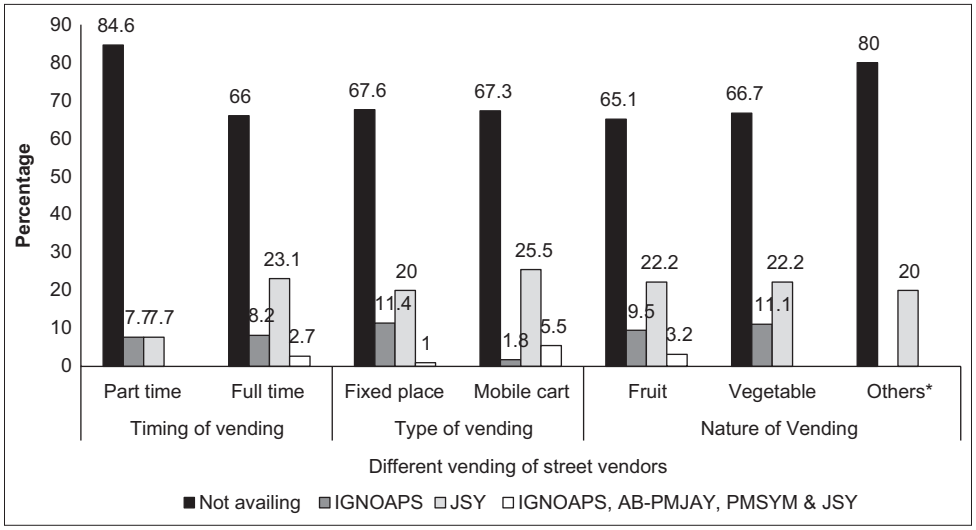

Figure 2: Distribution of street vendors by different vending and availing social security benefits. *Others-Umbrella's, Toys, Clothes, Carpets, etc

Majority 43.2% of the vendors utilized private hospitals (3.1% private practitioners, 14.4% medical colleges, 25% polyclinics) for healthcare services.

When asked about preference, OTC medicines were preferred than visiting a health care facilities by 71.3% of the street vendors and majority of them were male (76.3%). The various reasons given for their dependence on preferred healthcare were whenever they are free from work, after closing the sale of items, depends on severity, convenient timing of them and need to take leave from work.

Approximately 60% of the subjects had BPL card facilities. Mahadevia *et al*. in their study on street vendors in Ahmedabad shows only 0.66% have Social assistance/Pension/Other benefits.[7]

In the present study, 71.4% of males above 60 years of age were availing IGNOAPS. In few studies conducted in Delhi, 40–45% of the elderly belonging to BPL households were the beneficiaries of IGNOAPS. Similar result was also observed by United Nations Population Fund in their study on the status of the elderly in selected states of India.[5,8,9] The awareness regarding AB-PMJAY among the vendors was 28%, 18.8% of them were aware of JSY scheme. In a study conducted in an urban area of Puducherry, results revealed that less the 20% of the public was aware of state and central health insurance schemes.[10]

Recommendations

Organized efforts should be made to spread the awareness about the social security schemes that are available to the unorganized working class for their better utilization.

For most of the workers in the unorganized sector (street vendors), health-care utilization was profoundly dependent on their economic status and availability of cheaper facilities, therefore, government run institutes should be made more accessible and available for them.

CONCLUSION

Most of the vendors and their family members used government facilities and timing of vending (part/full time), time of visit of different health-care facilities, and financial status were the important determinants of utilizing healthcare. Almost one in two street vendors (51.9%) were not aware of any kind of social security welfare schemes provided by the government and of them, only 32.5% were availing the social security schemes. The social security needs to be more constructive and should have more coverage in terms of spreading awareness of existence of social security schemes for the workers in the unorganized sector.

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