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# Assessment of Health of Street Vendors at Mirpur Area in Dhaka, Bangladesh

**Md Abul Hossain<sup>1</sup>, Debabrata Deb<sup>2</sup>, Muhammad Al-Amin<sup>3</sup>, Sharif Hossain<sup>4</sup>,  
Md. Nazmul Haque<sup>5</sup>, Raqibul Islam<sup>6</sup>, Mohummad Nazrul Islam<sup>7</sup>**

<sup>1</sup>Department of Biochemistry, Bangladesh University of Health Sciences (BUHS)

<sup>2</sup>Medical Technologist, National Heart Foundation Hospital & Research Institute, Bangladesh

<sup>3,4,5</sup>Research Officer, Training and Research Institute of Medicine, Agriculture & Nutrition (TRIMAN) Nutraceuticals Limited, Dhaka, Bangladesh

<sup>6</sup>Survey Executive, National Healthcare Services, Bangladesh

<sup>7</sup>Owner and Medical Director, National Healthcare Services, Bangladesh

### Abstract

*The Background: Street vending is very popular and customized in urban areas. It is a dominant occupation in urban areas of developing countries. It offers goods or services for sale to the public without having a permanent built-up structure (head-load). Objective: To find out the health status of the street vendors at Mirpur area in Dhaka, Bangladesh. Methods: Descriptive type of cross sectional study was conducted with a pre-tested, modified, semi-structured questionnaire used to collect data. Sample size was 190. Data were entered and analyzed using SPSS software 16.0 version. Results: Majority (44.74%) of the respondents were middle aged, ranging from 20-30 years and mean  $\pm$  SD was  $34.85 \pm 10.71$ . Among them 95% was male and 5% female. About 25.79% respondent had no formal education and post graduation & above 14.26%, married 76.7 % and 23.3% unmarried. Found 61.05% worked seven days and 1.58% three days per week. 25.26% worked up to eight hours and over sixteen hours per day 1.56%. Majority (42.11%) of them earned from 501 to 1500 BDT and 4.74% more than 5500 BDT per day. Before starting street vending 20% and 13.3% respondent were with excellent and poor in health respectively. After six months of vending health condition had changed into better 51.7%, worse 41.7%, and unchanged 6.7%. Majority of them (63.3%) assumed that car fume and other environmental pollutions were highly linked with this job as health risks and 43.33% thanked road traffic accidents. The behavior of 73.3% respondent had changed and among them 33.3% got depression, 30% easily angered and 25% anxiety. 68.3% used public toilet for faeces and 66.7% for urination. 35% excreted their urine in open*

*places. Regarding the smoking habit 33.7% was former, 23.7% currently and 42.6% never use. 19% study subject was former, 9% currently and 72.1% never habituate on smokeless tobacco. Conclusion: Footpath vending keeps remarkable contributions to the poor citizen but it increases mental health problems like depression and anxiety. Recommendation: Further study need to explore more health conditions of footpath vendors.*

Keywords: *Footpath vending, Health risk, Health practice, Public health burden*

## **1. Introduction:**

Footpath vending is very popular and customized in urban areas. It is a dominant occupation in urban areas of developing countries. Half of the world's populations now live in urban areas largely because of rural-urban migrant increasing.<sup>1</sup> Urbanization has led to an unmet demand for housing, transport and employment opportunities<sup>2</sup>. The unmet need for unemployment has initiated the creation of informal employment of which includes street vending. Urbanization in Africa has been phenomenal and puzzling; with a rapid shift from 15% in 1950 to about 41% urban proportion currently<sup>3</sup>. The UNFPA estimates that by 2030, the continent may attain 54% urban proportion<sup>4</sup>. A street vendor is 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 head-load). The total number of street vendors in India is estimated at around 10 million<sup>5</sup>. Some studies estimate that street vendors constitute approximately 2 per cent of the population of a metropolis. Mumbai has roughly 2,50,000 street vendors and Kolkata has nearly 2,00,000.<sup>6</sup> Street vendors have poor social protection and their working conditions on the streets expose them to a variety of safety and health issues. The SNTD – ILO study on Mumbai found that around 85 per cent of the street vendors complained of stress related diseases – migraine, hyper acidity, hyper tension and high blood pressure.<sup>7</sup> But the street vendors market many goods, such as clothes and hosiery, household goods and food items, manufactured by home based workers, who have no other channels of marketing the products that they produce. They also ensure the availability of goods and services at cheaper rates to people. The lack of recognition of the role of the street vendors culminates in a multitude of problems faced by them: obtaining license, insecurity of earnings, insecurity of place of hawking, gratifying officers and musclemen, constant eviction threat, fines and harassment by traffic policemen. Bangladesh is a highly populated developing country. Hawking and street business are very easy and popular in this country. Millions of people survive their family doing street business. But there was no study in Bangladesh about footpath vending and their health. So, it was needed to determine and explore the health, health practice, health behavior of footpath vendors in Bangladesh.

## **2. Methods and materials:**

Descriptive type of cross sectional study was conducted at Mirpur in Dhaka city of Bangladesh to determine about the health status of footpath vendors. The subjects of the study were the persons, who were continuing vending in the street. They able to verbally communicate, agree

to give answers of the questionnaire and age between 15 to 75 years. The data were collected with pre-tested, modified, semi-structure questionnaire since 05 April 2017 to 25 April, 2017 while the vendors had been working. Areas were selected purposively and the sample size 190. Data were entered and analyzed using SPSS software 16 version.

### 3. Results:

Analysis of socio-demographic variables and found from table 1, majority of the respondents (44.7%) belong to age group of 20-30 years with mean age  $\pm$  standard deviation (SD) 34.85 $\pm$ 10.71. Age group of 31- 40 years was 27.89%, 41-50 years 14.21% and over 50 years of age 13.16%. Among them 94.21% were male and 5.79% female, 77.89% married and 22.11% unmarried. The educational level of the respondents were no formal education 25.79%, less than primary to higher secondary 18.42%, degree/honors 17.89%, post graduation and above 14.21%.

**Table 1: Distribution of respondents by socio-demographic characteristics (n=190)**

Item	Variable	Frequency	Percentage
Age	20-30 years	85	44.74
	31-40 years	53	27.89
	41-50 years	27	14.21
	50+ years	25	13.16
	Mean $\pm$ SD = 34.85 $\pm$ 10.71		
Sex	Male	179	94.21
	Female	11	5.79
Marital status	unmarried	42	22.11
	married	148	77.89
Education	No formal education	49	25.79
	Less than primary to higher secondary	35	18.42
	After higher secondary to degree/honors	34	17.89
	Post graduation and above	27	14.21
	<b>Total</b>		<b>190</b>

**Table 2: Distribution of working day, hour, and income level of the respondents (n=190)**

Item	Variable	Frequency	Percentage
Working days in a week	3 days	3	1.58
	4 days	7	3.68
	5 days	16	8.42
	6 days	48	25.26
	7 days	116	61.05
Working hours in a day	Upto 8 hours	48	25.26
	9-12 hours	101	53.16
	13-16 hours	38	20
	Over 16 hours	3	1.56
Income per day (BDT)	0-500 BDT	63	33.16
	501-1500 BDT	80	42.11
	1501-2500 BDT	29	15.26
	3501-4500 BDT	9	4.74
	≥5501 BDT	9	4.74
	<b>Total</b>	<b>190</b>	<b>100</b>

The study found 61.05% subject worked seven days, 25.26% six days, 8.42% five days, 3.68% four days and 1.58% three days per week. 25.26% respondent worked up to eight hours, 53.16% nine to twelve hours, 20% thirteen to sixteen hours and 1.56% over eighteen hours per day. Among them 33.16% earned up to 500 BDT, 42.11% from 501 to 1500 BDT, 15.26% from 1501 to 2500 BDT, 4.74% earned both from 3501 to 5500 BDT and over 5500 BDT per day.

**Table 3: Physical and mental health conditions before and after six months of vending (N=190)**

Changing conditions	Health status	Frequency	Percentage
Health condition before vending	Excellent	38	20
	Very good	38	20
	Good	87	45.8
	Poor	27	14.2
	Very poor	0	0
Health condition after six month of vending	Excellent	9	4.7
	Very good	41	21.6
	Good	105	55.3
	Poor	31	16.3
	Very poor	4	2.1
Changing behavioral health	Anxiety and easily startled	54	28.4
	Angrier	58	30.5
	Depression	63	33.2
	<b>Total</b>	<b>190</b>	<b>100</b>

Before vending on the footpath the health conditions of 20% respondent was both excellent and very good, 45.8% good and 14.2% poor. There was no respondent with very poor in health before starting vending. Six months after vending physical health turned into excellent 4.7%, very good 21.6%, good 55.3%, poor 16.3% and very poor 2.1%. Behavioral health of the respondents turned into anxiety and easily startled 28.4%, easily angrier 30.5% and depression 33.2%.

**Table 4: After six months of vending the diseases of the respondents (N=190)**

Item	Diseases	Frequency	Percentage	Total %
Skin disease	Rashes	63	33.2	48.4
	Boils	13	6.8	
	Foot Root	9	4.7	
	Cracked heels	35	18.4	
	Allergy	4	2.1	
	Pains and aches	60	31.6	
Musculoskeletal disease	Waist pain	53	27.9	61.6
	Shoulder pain	43	22.6	
	Elbow and knee joint pain	13	6.8	
	Hand and leg muscle pain	4	2.1	
Respiratory disease	Difficult breathing	38	20	49.5
	Catarrh	33	17.4	
	Sore throats	25	13.2	
	Cough	57	30	

After six months of vending the study subjects suffered from skin diseases 48.4%, among them the highest 33.2% suffered from Rashes. Total 61.6% suffered with musculoskeletal problems and the highest 27.9% suffered from waist pain. Almost halves (49.5%) of the respondents suffered from respiratory diseases and among them 30% suffered from cough.

**Table 5: Distribution of the health risks and prevention associated with vending (N=190)**

	Types of risks	Frequency	Percentage
Health risks associated during street vending	Road traffic accidents	81	42.6
	Falls and Injuries	33	17.4
	Verbal abuse from customers, colleagues, authorities	84	44.2
	Physical abuse from customers, colleagues, authorities	43	22.6
	Car fume and other environmental pollution	119	62.6
	Harsh weather	43	22.6
Risks prevented by	Nothing	99	52.1
	Wear socks, mask, appropriate cloth	21	11.1
	Always careful	95	50
	Vaccination	16	8.4
	Regular check up	17	9
	Taking medicine, herbs, food supplements	13	6.8
	Others	19	10

\*\* Multiple answers

Assumptions of respondents, car fume and other environmental pollutions were associated with health risks 62.6%, verbal abused from customers, colleagues, authorities 44.2%, physical abused from customers, colleagues and authorities 22.6%, falls and injuries 17.4%, road traffic accidents 42.6%.and harsh weather 22.6%. The prevention from risks were nothing by 52.1%, wearing additional clothing such as socks, long sleeves shirts, nose mask 11.1%, always careful 50%, vaccination 8.4%, taking herbs, medicine, food 6.8% and others 10%.

**Table 6: Hygiene Practice of the respondents by faececation and urination (N=190)**

Item	Faececation		Urination	
	Frequency	Percentage	Frequency	Percentage
Personal toilet	74	39	32	16.8
Public toilet	126	66.3	123	64.7
Open space	0	0	66	34.7
Official toilet	5	2.6	5	2.6

Study found the pattern of hygiene practice of the respondents regarding the place for excreting stool and urine, 66.3% used public toilet for faececation as well as 66.67% for urination. 39% and 16.8% used personal/family toilet for excreting stool and urine respectively. 34.7% used open places for urination but no one faececation. 2.6% used official toilet both for stool and urine excretion.

#### 4. Discussion:

The study found mean age with standard deviation (SD) of the respondents was 34.85±10.71 and highest 44.74% belongs to age group 20-30 years. Over fifty years of age was 13.16%, where as in Yaounde, Cameroon this age group was 30.71%, more than fifty years only 3.22%<sup>11</sup> and in Accra, Ghana age group of 20-29 years was the highest 58.3%, more than 50 years 0.3%.<sup>12</sup> In this study female respondents were 5.79% but in Yaounde 58.42% and in Accra 68.3%<sup>12,13</sup> that makes far difference from Bangladesh. Also no formal education found 23.3% and 3.3% completed the post graduate degree among the respondents in Dhaka. On the contrary no formal education 20.8% and no post graduation found in a study in Cameroon. 31.7% respondent earned 150 to 500 BDT and 5% more than 5500 BDT per day. But in India the average earnings of street vendors were low - ranging between 40 and 80 rupees per day<sup>8</sup>. This study found got anxiety and easily startled at least noise 25%, easily angered 30% and depression 33.3%. It is almost similar to the SNTD – ILO study on Mumbai found around 85 per cent of the street vendors complained of stress related diseases – migraine, hyper acidity, hyper tension and high blood pressure<sup>6</sup>. This study also found 68.33% used public toilet for faecation as well as 66.67% for urination. Ministry of Housing and Urban Poverty Alleviation. National Policy on Urban Street Vendors, 2004, found 78% used the public toilet<sup>9,10</sup> in India.

#### 5. Conclusion:

The study concluded the socio-demographic characteristics, working days, hours, income, physical and behavioral health, before-after health related to vending, hygiene practice etc. Need further study to know details about the vendors like health seeking patterns, congenital diseases or abnormalities, living and household patterns, behavioral practices, migrated or originated etc to measure the health status of the vendors.

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