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Health status of Urban Informal Workers - Perspectives of commercial Taxi and Auto Rickshaw Drivers of Nagaon Town of Assam

Md Abdur Rashid[1]* Md Ashraf Wahid[2]

[1] Associate Professor, Department of Commerce, USTM, Meghalaya

[2] Research Scholar, Department of Economics, USTM, Meghalaya

Abstract – Informal Auto Rickshaw and Commercial Taxi Drivers in Nagaon urban areas are vulnerable to variety of health problems and other welfare insecurities as they are none but the urban poor. Poor working conditions, non-affordability to health care are some of the reasons that results in diseases, injuries both fatal and non-fatal to the workers. With the aim of exploring such health and other issues of the drivers in the Nagaon Town of Assam a descriptive study was carried out among 120 Drivers from two groups (80 from Auto Rickshaw and 40 from Commercial Taxi) using convenience sampling technique. Study found multiple health problems among the Drivers in the area. Self-employed drivers from both the groups were found affected in large numbers. Lowest 5% to highest 70% Auto drivers and lowest 7.5% to highest 60% of Taxi drivers were found multiple disease affected. Non-fatal injury affected drivers were also found among highest 37.5% drivers. Health care access was found in poor state and non-availability of social security to the drivers raised a great concern. Govt intervention, community participation, awareness and surveillance are some of the suggestions extended by the study.

Keywords: Health Status, Informal Workers, Urban, Taxi & Auto Rickshaw Drivers, Occupational Disease and Injuries.

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1. INTRODUCTION

In India, the vast majority of people that accounts for nearly 93 percent are self-employed or casual workers in the informal sector or unorganised sector where only about 10 percent of the population is self-employed in Europe and America. Urban poor workers and micro entrepreneurs have been providing valuable services to the society by means of their legitimate occupation but they are governed by some unfriendly regulations. These workers are provided with no welfare or social security measures and thereby all these made them vulnerable to variety of exposures (Kishwar M P 2009). One of the major exposures to such workers has been deemed as their health, safety and security at work.

Informal sector workers do not have steady employment and secured and sustainable income, and are not covered by social security protection. Vulnerabilities are the major threats faced by the workers (Naagarajan R 2010). The Informal Sector consists of all economic activities that remain outside the official institutional framework and consequently the government has little control over the quality of employment (Vaidyanathan R 2014).

Urban workers have been found to be engaged in the emerging informal service sector activities like vehicle driving in the transportation sector. According to the Economic Survey of Assam 2014-15, contribution of transport sector calculated at 9.82 percent of SDP in 2013-14 at constant (2004-05) prices.

During last one and half decade the emerging Urban Assam witnessed regular and even in bulk passengers' mobility based on the priority of their necessity of day-to-day life. Urban busy life of its population has increased the demand for convenient transportation in order to move within and outside the towns and cities that the Private motorized Auto Rickshaws and Commercial Taxis have been catering their needs in most attractive way to relocate. These mini vehicles have been offering better flexible services to the passengers' convenience and become most preferred means of transportation to them. Total number of Commercial Taxi and Auto Rickshaw have been found registered in Assam up to March, 2014 is 50969 and 83052 respectively. It should be worth mentioning that it is only the vehicle workers like Drivers who have been serving the need of the urban passengers for which the whole

transportation system has been in a smooth operation in the state.

Driving has been found to be one of the hazardous occupations that could lead to various health problems. Drivers need to expose to various health risks such as prolonged sitting in driving, undue running schedule, traffic congestion, improper sitting posture in driving etc. So, the focus on the issues of health condition of these workers has been an uttering demand only to maintain the sustainability of the growth of the mass emerging urban passenger road transportation. During recent years, passenger road transportation vehicles has generated various types of hazards i.e., physical, chemical, biological, exposures(ergonomic) and risks i.e., fatalities & Non-fatalities (Stellman J M 1998) for its workers, as a result of which health of these transportation workers has been a core topic of discussion.

Occupational disease specific studies were carried out over time with some clinical cause and effect experiments in different states of India in respect transportation workers that have raised the importance of finding the inequalities prevailing within this country, if any, for which area based case studies need to be undertaken so as to materialise the Universal Health Coverage strategy. Besides, initiating inclusiveness of all sections of the workforce in this country within the social security coverage demands reduction of inequalities to maintain the sustainability vision of this country.

A very few studies have been conducted in Assam. Literature search found occupational health and safety of the tea plantation workers and Restaurant Workers (Biswas, D. *et al.* 1999). So the present study was conducted to find out the prevalence of health and welfare issues among the informal urban workers taking two groups like Taxi and Auto Rickshaw Drivers of Nagaon Town of Assam into consideration.

2. IMPORTANCE OF THE STUDY

Vehicle Workers are the principal input in determining the productivity of the road transportation sector in the state. Healthy workers ensure growth and sustainability of the road transport since this particular mode of transportation is largely accepted by the passengers. Health problems of Urban Auto Rickshaw and Commercial Taxi Workers have not received significant attention despite high growth rate attained by India. The discourse of occupational health, safety and social security issues of Urban Informal Service sector workers remained hitherto unmet. The mobility of urban passengers which mainly relies on motorized Auto Rickshaws and Commercial Taxis will remain in a constraint state if the working health challenges of the Drivers are not addressed soon for the emerging agglomerated urban areas of this country too.

3. OBJECTIVES OF THE STUDY

Based on the backdrop of the problems mentioned we carried out the present study with the following specific objectives:

1. To explore the prevalence of health problems among the Auto and Taxi drivers of Nagaon Town of Assam.

2. To assess the welfare support to the driving workers in the study area.

4. STUDY AREA PROFILE

Motorized Auto Rickshaw and Commercial Taxi are staffed by one Driver only engaged informally to the vehicles owned by private individuals or the drivers itself self-employed with the vehicles that are sponsored by banks or self-finance. These workers are constantly attached for the vehicles respectively which relocate the passengers on the basis of rent or hire and fare charges fixed by transport authority as per kilometres they runs in and outside the town itself. Nagaon, an administrative district of Assam with a geographical area of3993 sq. km., is a centrally located district headquarters town of Assam and one of the fastest growing urban centres having the set up with 26 numbers of Municipality Wards with a population of 116355 as per 2011 census. Total Urban Roads recorded at 88 kilometres as on 31-3-2014 occupying second next to Kamrup Metro of Assam. According to the live register records of Nagaon DTO office, a total of 6015 Nos. Auto rickshaws and 2150 Nos. Commercial Taxis have been registered. Nagaon is connected by National Highways i.e. NH 36, NH 37 & 37A and other state Highways. Distance from Nagaon to State Capital (Guwahati) by road is 123 km. Nagaon Town has been a corridor linking the upper Assam districts of Golaghat, Jorhat, Sivasagar, Dibrugarh, Tinsukia and the North Assam districts of Sonitpur and Lakhimpur. Based on the transitional change in urban transportation system the mode of passengers' mobility by means of Auto Rickshaw and Taxi in Nagaon town gained momentum during current decades. Urban People are largely engaged in the mass unorganised or informal sub-service sector units, i.e. private owned Auto Rickshaw and Commercial Taxi that are concentrated in different places of Nagaon Municipality areas. A marked increase in the urban poor of the town area made them bound to engage in the hazardous but unregulated works. So, Nagaon Town was purposively selected as the area for the present study.

The registered Auto Rickshaws and Commercial Taxis are not concentrated in Nagaon Town rather scattered in different Sub-divisions of the district. These vehicles are having temporary halting places

like one near Nagaon Civil Hospital, two stoppages at Two Nagaon Railway Stations, 6-7 places run by private passengers' travel agencies and large numbers are halted at the wayside public places with or without permission of the Local Authorities. The vehicles are allowed to halt only for a period of twenty to thirty minutes and there is no readily available workers' or Drivers' statistics at any source.

5. METHODOLOGY

Based on the qualitative study Convenience Sampling method was used to select a sample of 120 Drivers (80 Auto Rickshaw and 40 Taxi) for the study. Self-reported health complaints and other related information of the Auto Rickshaw and Taxi drivers served as the primary source of information which were collected by personal face-to-face walk-in interview using unstructured Interview Questionnaire containing open ended questions relevant to occupational health and safety framework.

Because of the descriptive nature of the study only the prevalence of work-related health problems (diseases, non-fatal injuries/accidents) and supporting health care and other social securities, if any, were examined for depicting the seriousness of the workers' health issues in the study area for which counts, percentage, average, of the measurable variables were analyses of the study. Workers' demographic characteristics are also noted for comparison.

6. RESULTS

A total of 80 workers from Auto Rickshaw and 40 from Commercial Taxi were interviewed and self-reported health problems and other associated information on socio-economic and welfare related parameters were recorded which were provided by the respondents. Drivers of the Auto Rickshaws and commercial Taxis are attached with the job of driving the vehicles and hauling the passengers to and from specific destinations. These workers are vulnerable to variety of exposures that are the threats for their health and well-being. Vehicle work involves driving for irregular working hours with exposures to noise, dust, heat and vibration in the work environment and continuous attention demands (Nag, A. *et al.* 2016).These workers need to perform some additional tasks during passenger transits being the emergency jobs for the vehicles, besides they are designated for, like roadside repairs, changing tyres, installing spares, cleaning, washing etc. which are hazardous works and increases risks to their health. Based on the respondents' information the recorded data were classified by simple classification procedures which were tabulated for Interpretation. Drivers' nature of employment, Age and Working Age which are responsible for their working vulnerabilities are depicted in the Table 1 & 2. Self-reported detail health problems are shown in Table.3. Non-fatal drivers' occupational injuries due to certain working exposures are given in Table.4. Socio-economic characteristics are shown in Table.5. Health care access and other Social Security status of the drivers are depicted in Table.6.

Results **(Table.1.)** shows that a majority of Auto Drivers were self-employed which accounted for 52.5% and the rest of the Drivers engaged as regular in 18.75% and casual in 28.75% respectively and on the contrary regular Drivers in the group of commercial Taxi occupied highest involvement with 50% and self-employed and casual Drivers with 25% each. This indicates the larger informalisation in the context of the country's structural change of occupation. Out of a total of 80 Auto Drivers and 40 Taxi Drivers highest 51.25% (Auto) and 75%(Taxi) Drivers belonged to the age group of 26-39 followed by 28.75%(Auto) and 15%(Taxi) Drivers in 40-55 and 20% and 10% in the 18-25 age groups respectively. Contrarily, 42.5% Auto Drivers and 50% Taxi Drivers found having <6 years of driving experience whereas lesser percentage of drivers were found with <10 years in both the groups **(Table.2.)**

Table.3. shows the prevalence of multiple health problems recorded on the basis of the self-complaint information provided by both the group of informants which were significantly caused by unhealthy employment conditions. Each category of drivers reported multiple working diseases that were found almost common to them. The percentages of both Auto Rickshaw and Taxi drivers who reported common health problems were 32.5% and 42.5% with Low Back Pain, 32.5% and 35% with other Pains, 26.5% and 20% with Rheumatic problem, 18.5% and 50% Respiratory problem, 11.25% and17.5% with Abdominal problem, 70% and 60% with Gastroenteritis, 7.5% each with Headache, 21.5% and 15% with Sleeplessness, 36.25% and 30% with Mental Fatigue, 17.5% and 27.5% with Skin Diseases. The percentages of workers recorded health problems contained all the three category of employment in both the group of the subjects in the area. A high prevalence of diseases like Low Back Pain, other pains, Rheumatic, Gastroenteritis, Sleeplessness, Mental Fatigue, Respiratory and Skin Diseases were found common to both the group of drivers. Self-reported health complaints were substantially high among the drivers who had driving experience or working age between >5 to <10 years as observed during investigations.

Auto and Taxi drivers remain always at a risk of employment injuries (fatal and non-fatal) due to the exposures to various work hazards. **Table.4.** reflects a few non-fatal working injuries reported by the respondents. 35% Auto drivers and 37.5% Taxi drivers had Cuts and Burns injuries. Fracture cases were reported by 10% drivers from each group. Accidents and other injuries were found in 20% Auto and 30% Taxi drivers. These injuries were

reported as the sustained injuries that occurred to them. One fatal accident case was reported regarding a companion of Auto driver which was happened in 2015 but no information could have been collected from the informants.

Drivers' health vulnerabilities are caused by a combination of socio-economic and other determinants that let them face more risks (**Table.5.)**. Average monthly incomes, number of dependents, education level, absenteeism, addiction are some of the determinants that have been reflecting the vulnerabilities of the drivers groups. The poor state of average monthly income that ranged from Rs. <5000 to above Rs. 6000 is the meagre amount to meet their requirements where majority of the drivers like 68.75% Auto and 70% Taxi drivers had their family with the dependents of >4 size. 35% to 52.5% drivers were found in the driving occupation despite having secondary education may have some significant relation, if hypothetically testified, to absenteeism and alcoholism where 18.75% to 50% drivers were found to remain absent from work for a monthly average of >4 days and 6.25% to 45% drivers were reportedly addicted to smoking, tobacco, gutkha, and alcohol.

Drivers are vulnerable to variety of health risks due to inadequate access to health care and social protections which increases the high involvement in working diseases, injuries and even death. **Table.6**. shows vulnerable status of the drivers' health care and other social security measures. Local Govt. hospital had been the prime source of treatment for their working health problems but in serious conditions self-borne out of pocket expenditure was reported to be the ultimate source for accessing the health care facilities. Health Insurance was reportedly an ironical measure to avail by them since awareness regarding occupational health, safety and security was found absent among them during observations.

7. DISCUSSION AND CONCLUSION

The findings of the present study reveals that the study subjects of both the groups were exposed to number of insecurities like informal employment status, hazardous working conditions, poor health care due to non-affordability and absence of social securities for which prevalence of working diseases, injuries were found common among the study groups. Highest prevalence of working diseases were found as Low Back pain, others pains, Rheumatic, Gastroenteritis, Mental Fatigue and Respiratory in which 26.5% to a maximum of 70% drivers were found affected from both the groups. Present study is confirmed by some earlier studies. Borle, A. *et al.*, (2012) recorded prevalence of low back pain among 62.10% truck drivers in Nagpur city. Sinha, A.K. and Shashikala, M. (2015) assessed stress among auto drivers. Kumar, A. et al. (2005) reported high frequency hearing loss among truck driver farmers. Kartikeyan, S. *et al.* (2004), Baishali, Bal, M.A. *et al.* (2016) conducted clinical test among transport workers. Quantification of data by any statistical test was avoided in the study. Significant association and differences among the variables can also presumably be quantified in further study by experimental and clinical investigation. Sustained non-fatal injuries were considered inevitable to the subjects due to not taking protective measure by them. Self-employed drivers were found 52.5%, 25% and regular 18.75%, 50% in Group-I & II respectively. Despite being educated, addiction could not have been denied for earning insufficient income by both the group of drivers besides found absent from work in a regular manner for which fatigue was reported by them. Inadequate health care access due to non-affordability compelled them to continue driving caused their health deteriorated. The Present paper highlights some of the serious health problems recorded which can be deemed as serious concern in the national context. Present study explores the prevalence of working diseases, injuries and availability of health care and other social security measures and found the vulnerabilities of the drivers to variety of health hazards in the study area.

Study concludes that Auto Rickshaw and Taxi drivers are highly involved in multiple health problems arose out of their work exposures that need serious interventions besides promoting awareness among workers about occupational health and safety at work. In fact occupational diseases can be protected if surveillance or monitoring of health hazards of the workers is done in the study area before time through the concerning Govt departments, NGOs (like SEWA Organisation) and Trade Unions etc.

Table 1: Employment Status of the Drivers

Characteristics	Auto Drivers N=80	Commercial Taxi Drivers N=40
Self-Employed	42(52.5)	10(25)
Regular	15(18.75)	20(50)
Casual	23(28.75)	10(25)

Source: *Primary Data*

Table 2: Distribution of Age and Working Age of the Drivers

Variables	Auto Drivers (N=80)			Total (N=80)	Commercial Taxi Drivers (N=40)			Total (N=40)
	Self-employed (n=42)	Regular (n=15)	Casual (n=23)		Self-employed (n=10)	Regular (n=20)	Casual (n=10)	
Age								
18-25	2(4.76)	4(26.66)	10(43.47)	16(20)	0(0)	3(15)	1(10)	4(10)
26-39	25(59.52)	8(53.33)	8(34.78)	41(51.25)	7(70)	15(75)	8(80)	30(75)
40-55	15(35.71)	3(20)	5(21.73)	23(28.75)	3(30)	2(10)	1(10)	6(15)
Working Age(inyears)								
>2	4(9.52)	6(40)	15(65.21)	25(31.25)	5(50)	7(35)	3(30)	15(37.5)
<6	22(52.38)	6(40)	6(26.08)	34(42.5)	4(40)	11(55)	5(50)	20(50)
<10	16(38.09)	3(20)	2(8.69)	21(26.25)	1(10)	2(10)	2(20)	5(12.5)

Source: *Primary Data*. Parentheses indicate percentages

Table 3: Profile of Health Problems of the Drivers by two groups

Diseases	Auto Drivers (N=80)			Total (N=80)	Commercial Taxi Drivers (N=40)			Total (N=40)
	Self-employed (n=42)	Regular (n=15)	Casual (n=23)		Self-employed (n=10)	Regular (n=20)	Casual (n=10)	
Low Back pain	15(35.71)	9(60)	2(8.69)	26(32.5)	5(50)	9(45)	3(30)	17(42.5)
Musculoskeletal/ other pains	18(42.85)	6(40)	2(8.69)	26(32.5)	4(40)	7(35)	3(30)	14(35)
Rheumatic	15(35.71	4(26.6)	2(8.69)	21(26.5)	2(20)	3(15)	3(30)	8(20)
Malfunction of chest/ respiratory	12(28.57)	8(53.3)	0(0)	15(18.5)	7(70)	11(55)	2(20)	20(50)
Abdominal problems	8(19.04)	1(6.66)	0(0)	9(11.25)	2(20)	3(15)	2(20)	7(17.5)
Digestive tract disorder/ gastroenteritis	32(76.19)	12(80)	12(52.7)	56(70)	7(70)	12(60)	5(50)	24(60)
Headache	4(9.52)	2(13.3)	0(0)	6(7.5)	0(0)	3(15)	0(0)	3(7.5)
Eye sight loss	2(4.76)	2(13.33	0(0)	4(5)	0(0)	0(0)	0(0)	0(0)
Sleeplessness	6(14.28)	6(40)	21.73)	17(21.5)	2(20)	4(20)	0(0)	6(15)
Mental Fatigue	18(42.85)	5(33.3)	6(26.08)	29(36.25)	4(40)	6(30)	2(20)	12(30)
Skin Diseases/Dermatitis	6(14.28)	6(40)	1(4.34)	14(17.5)	3(30)	6(30)	2(20)	11(27.5)

Parentheses indicate percentages.
Multiple health problems reported and the number of workers overlapped
Source: *Self-reported Respondents' Data.*

Table 4: Status of Injuries (Non-Fatal) of Drivers due to work exposures

Nature of Injuries	Auto Drivers (N=80)	Commercial Taxi Drivers (N=40)
Cuts and Burns	28(35)	15(37.5)
Fractures	8(10)	4(10)
Other injuries due to accidents	16(20)	12(30)

Note: Parentheses indicate percentages
Source: *Self-reported Respondents' Data.*

Table 5: Socio-Economic Status of the Drivers

Parameters	Auto Drivers (N=80)	Commercial Taxi Drivers (N=40)
Average Monthly Income		
Less than 5000	14(17.5)	0
50001-6000	26(32.5)	20(50)
60000 and above	40(50)	20(50)
Number of Dependents		
>2	10(12.5)	3(7.5)
>4	55(68.75)	28(70)
<8	15(18.75)	9(22.5)
Absenteeism(Average Monthly days)		
<4	42(52.5)	10(25)
>4	15(18.75)	20(50)
<10	23(28.75)	10(25)
Education		
Illiterate	8(10)	3(7.5)
Primary	30(37.5)	21(52.5)
Secondary	40(50)	14(35)
Graduation	2(2.5)	2(5)
Others	0(0)	0(0)
Addictions		
Smoking	5(6.25)	5(12.5)
Tobacco	25(31.25)	10(25)
Gutkha	36(45)	8(20)
Alcohol	10(12.5)	15(37.5)
No Addiction	4(5)	2(5)

Note: Parentheses indicate percentages
Source: *Self-reported Respondents' Data.*

Table 6: Status of access to Health Care and other Social Securities by the drivers

Determinants	Auto Drivers (N=80)	Commercial Taxi Drivers (N=40)
Source of Medical Facilities availed	Local Govt Hospital & Pvt. Practitioners	Local Govt Hospital & Pvt. Practitioners
Source of Medical Expenditure	**Own out of Pocket**	**Own out of Pocket**
Type of Medical facilities availed	Allopathic & Homeopathic	Allopathic & Homeopathic
Medical Expenses provided by the employers	**Nil**	**Nil**
First-Aid Facilities available in the vehicles	Partial	Partial
Sickness Absence benefits	**Nil**	**Nil**
Health Insurance	**Nil**	**Nil**
Bonus	**Occasionally**	**Occasionally**
Safety during working hours	Partial	Partial

Note: Parentheses indicate percentages
Source: *Self-reported Respondents' Data.*

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Corresponding Author

Md Abdur Rashid*

Associate Professor, Department of Commerce, USTM, Meghalaya