

Health and well-being of the Urban Informal Workers-Case studies of commercial Taxi and Auto Rickshaw Drivers of NagaonTown of Assam

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Abstract

Urban Informal Workers are vulnerable to variety of health threats and employment and other social 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 in the Nagaon Town of Assam taking two groups of workers like Auto Rickshaw and Commercial Taxi Drivers as case studies a descriptive study was carried out selecting 120 Drivers from two groups (80 from Auto Rickshaw and 40 from Commercial Taxi) using purposive and convenience sampling technique. Study found multiple health problems among the Drivers in the area. Self-employed drivers from both the groups were found to be 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 researchers.

Keywords: *Health status, Well-being, Informal Workers, Urban, Taxi & Auto Rickshaw Drivers, Occupational Health.*

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 or unorganised sector workers do not have steady employment and secured or 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 that passenger mobility has become regular and even in bulk form 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 transport. 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 only in respect of the occupational health and safety of the tea plantation workers and one for Restaurant Workers (Biswas, D. *et al.* 1999). While searching through Goggle and Goggle Scholar web engine no study resources have been found to have carried out in the state of Assam till date for the transportation workers. 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 as the case studies.

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 ascertain the availability of welfare support or social security measures to the driving workers in the study area.

4. Methodology

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 of 3993 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 **Qualitative case study approach** was used to carry out the **Descriptive nature** of research. The present paper envisaged the concept of Health in respect of **Workers like Commercial Taxi and Auto rickshaw Drivers which is selected as the Population of the study** and defined by the Indicators like Workers' Health Hazards and Well-being which are supported by the Parameters, such as occupational Diseases, Injuries/Accidents(Non-Fatal) for Health Hazards on the one hand and Well-being by health care, social securities etc. besides incorporated by some other related Variables like Age, Work Experiences, Education, Income, Dependents,, Sickness Absenteeism, Addiction etc. on the other. In the context of the problem of the study and to achieve the objectives the investigation was undertaken, **during the period of May-July, 2016.**

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. Hence, the **Convenience Sampling** method was used to select the sample for the study. **Total 120 Drivers (80 Auto Rickshaw and 40 Taxi) participated the Interview out of the total of 150 Drivers** that were selected for conducting a rigorous survey.

The Auto Rickshaw and Taxi drivers served as the primary source of information. Office File records, Unions, Books, Journals, Reports, Web search etc. were used as the secondary sources of the study. Primary Data were collected by **personal interview using Semi-structured Interview Questionnaire** containing both close and open ended questions.

Because of the descriptive nature of the study only the presence or absence of the health determinants were empirically analysed for depicting the seriousness of the problems in the study area in the context of the rest of this country rather quantifying the cause and effect relationship of the workers' health issues for which Various Statistical techniques like average, mean, mode, percentage were used for the interpretation of the primary data.

5. 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 or work, 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.

The results of the accumulated data mentioned in the Table 1 & 2 shows the nature of employment in the vehicles and Age groups as well as the driving period or working Age of the workers. Data in 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 as reflected in 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% and 17.5% 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. shows a glimpse of those. 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. The descriptive information in the 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.

6. Discussion and conclusion

Interpreting the primary data collected from the respondents 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 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. In some earlier studies like Borle, A. *et al.*(2012) found 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. In fact, non- prevalence of diseases could not have been computed due to the overlapping of the respondents in multiple diseases. Distribution of disease affected workers' differences can also be quantified if quantitative tests are applied. Working sustained non-fatal injuries were considered by the drivers as inevitable facts due to their employment vulnerabilities hence no careful safety measures undertaken by them. Number of causative factors found responsible for the health hazards of the workers which may be find out in some cause and effect as well as clinical studies like studies done earlier. As self-employed drivers were found 52.5% and 25% (both groups) respectively, despite being educated, earning insufficient income so possibility of addiction cannot be denied. Regular wage earning drivers from 18.75% to 50% in both the groups with unsatisfactory income were also found to be involved to addiction as well as absent from work in a regular manner that were assumed as the cause of mental fatigue. Inadequate health care access due to non affordability as well as absence of the social security measures, as provided to the formal workers, compelled them to do more in hazardous works only for the sustenance of themselves. The Present paper highlights some of the serious health problems of the informal workers engaged in transportation services taking into consideration of the two cases like Auto Rickshaw and Commercial taxi drivers in an emerging urban area like Nagaon town of Assam 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 exposed to variety of health hazards in the town area. Hence, the study concludes that Auto Rickshaw and Taxi drivers are highly involved in multiple health problems arose out of their occupation 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 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) | 2(8.69) | 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 | LocalGovtHospital&Pvt. Practitioners | LocalGovtHospital&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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