

A review of occupational health hazards and working conditions of Auto rickshaw drivers of Kannur district

Dr. T. Shameerdas

Associate Professor of Economics, Govt. College, Madappally

Abstract: Auto rickshaws are the commonly preferred vehicle for transportation by single passengers or a small group of passengers for a short duration of distance and important mode of transportation both in urban and semi urban area. It provides more employment opportunities for wide range of people especially those who are unskilled and lack better education. Moreover the drivers were facing some health problems because of the nature of their working atmosphere. The present study focuses on occupational health hazards and working condition of auto rickshaw drivers in Kannur district. The study using descriptive analysis, explored in detail the occupational health hazards of auto rickshaw drivers to understand the important work related health issues that they face. The study also helps to understand the working condition of auto rickshaw drivers on the basis of their monthly income, monthly expenditure, etc.

The study found that, the auto rickshaw drivers face many work related health problems. The female participation in this field was very low. They face occupational health hazards like headache, back pain, neck pain, knee pain, ankle pain, wrist pain, shoulder pain, elbow pain, eye complaints, asthma, dust allergy, cough, urine infection, gastric, tendons, fatigue and frequent fever. It is also found that irrespective of men and women they suggested for providing better sanitation facility in every halting stations.

Key terms: Auto rickshaw drivers, Occupational health hazards, Working condition

1.1 - BACKGROUND

Auto rickshaws are the most important mode of transportation both in urban and semi urban areas. It is a motorized version of the old pulled rickshaw or cycle rickshaw. It was first invented in Japan and from there it was shipped to different countries of the world. Auto rickshaw is the commonly preferred vehicle for transportation by single passengers or a small group of passengers for a short duration of distance. As compared to taxis, auto rickshaws are cheaper. India was the largest manufacturer of three wheelers in 2018. As urbanization takes place all over the world, especially in the case of India, people choose auto rickshaw as a better mode of transportation. And it gives them more privacy than all the other public vehicles.

Auto rickshaw plays an important role in the life of public, at the same time the auto drivers face many occupational health problems which many of us are not aware of. One of the important among them is the respiratory issues because of increase in air pollution. As the working environment become more polluted and spending more than ten hours in the same condition leads to cough, breathlessness etc. It is not only the occupational health problems faced by auto rickshaw drivers; there are several other issues such as back pain, wrist pain, cardiovascular diseases, headache, ankle pain etc. This occurs mainly because of the vibration, dust, the sitting position of auto rickshaw drivers etc. Besides these, other occupational health problems also arise because of the changes in the life styles like irregular eating, over consumption of alcohol, smoking, and tobacco consumption.

1.2 - SIGNIFICANCE OF THE STUDY

Auto rickshaws are ubiquitous in Indian cities. They play an important role in urban mobility by serving as an intermediate public transport mode and providing taxi like services. It provides more employment opportunities for wide range of people especially those who are unskilled and uneducated. Auto rickshaws are an important part of urban mobility and a step to improving sustainable transportation, as well as quality of life in Indian cities. Integrating auto rickshaw services as a feeder mode complements public transport and door to door services, providing an alternative to private vehicles. They are the principal input in determining the productivity of the road transportation sector in the state.

Despite this role, the health problems of the drivers have not received significant attention. Due to the increase in air pollution and there by dust wind in most of the Indian cities results in respiratory issues among people especially to the auto rickshaw drivers who were always working in this environment. Government policies such as regulating

private transportation, increases the cost of auto rickshaw drivers and reduces their revenues. The new entry of workers into the sector may adversely affect the working condition of auto rickshaw drivers.

The main significance of the study is to identify whether there is any health hazards confronted by auto rickshaw drivers or not. And also identify the kind of health problems they face. In this context, it is necessary to make an overview of the incidence of health problems among auto rickshaw drivers and their working conditions.

1.3 - OBJECTIVE OF THE STUDY

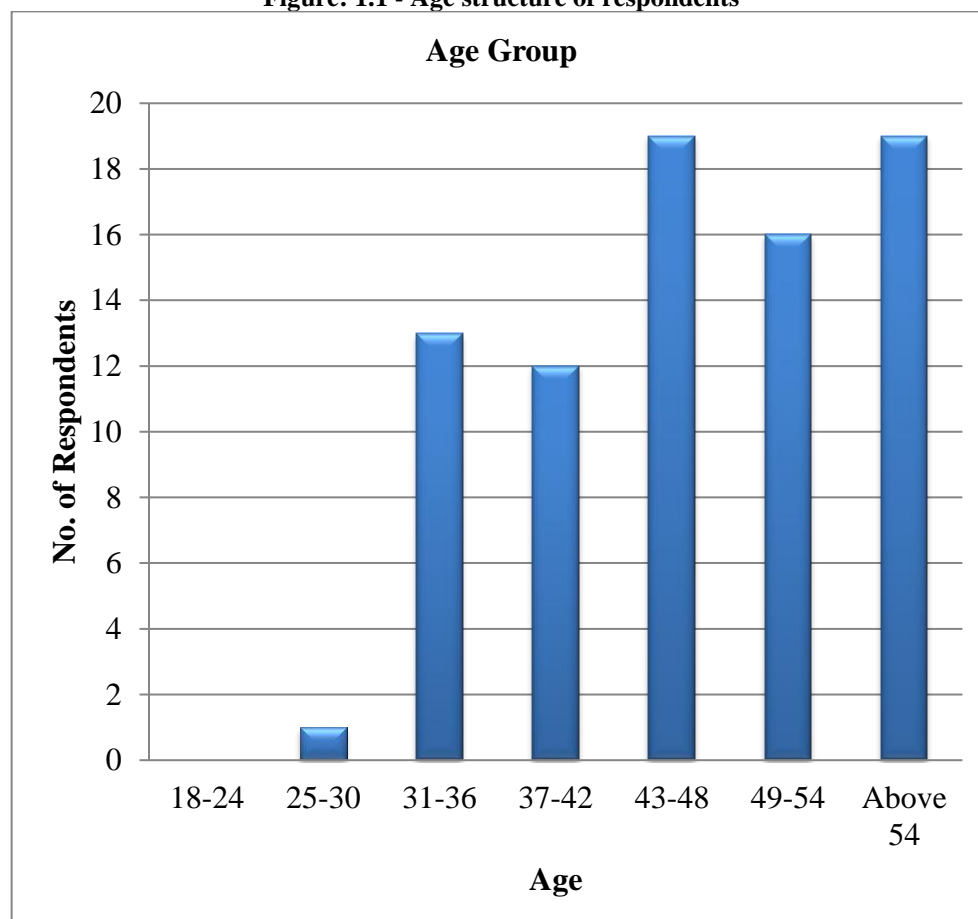
The present study is intended to examine the occupational health hazards among the auto rickshaw drivers in Kannur district with the following specific objectives:

- To analyse the work related health hazards among auto rickshaw drivers.
- To analyse the working condition of auto rickshaw drivers.

1.4 - AGE WISE DISTRIBUTION OF RESPONDENTS

Age is an important variable which influence the state of health of the people. The occupational health hazard effect will be different for different age group of drivers. Therefore age is considered as an important factor which determines the health condition of auto rickshaw drivers. Age groups of auto rickshaw drivers are depicted in figure 1.1.

Figure: 1.1 - Age structure of respondents

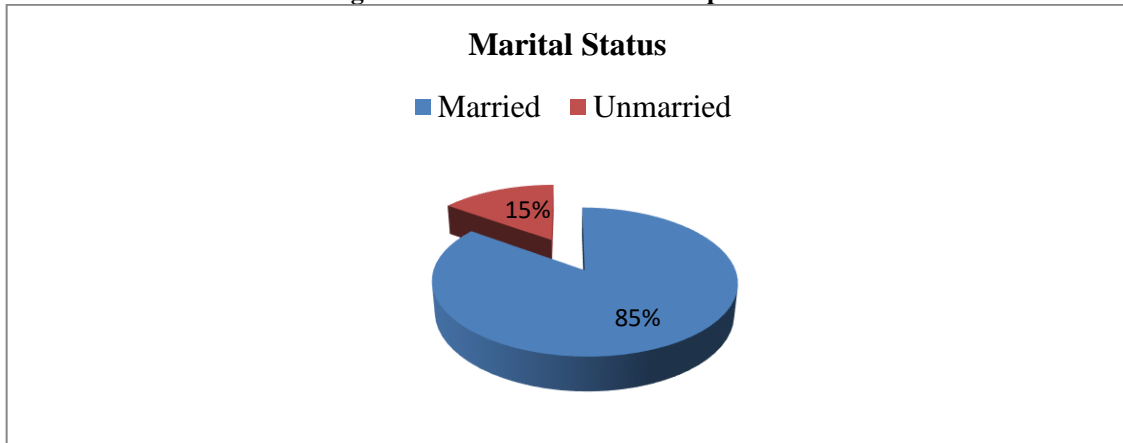


Source: Primary Data

1.5 - MARITAL STATUS OF AUTO DRIVERS

The concept of marital status applies to the conjugal arrangement of a person. Marital status is a social indicator for understanding the socio-economic status of auto rickshaw drivers. It increases their duties and work load. Figure 1.2 shows the distribution of auto rickshaw drivers on the basis of their marital status.

Figure 1.2 - Marital Status of Respondents

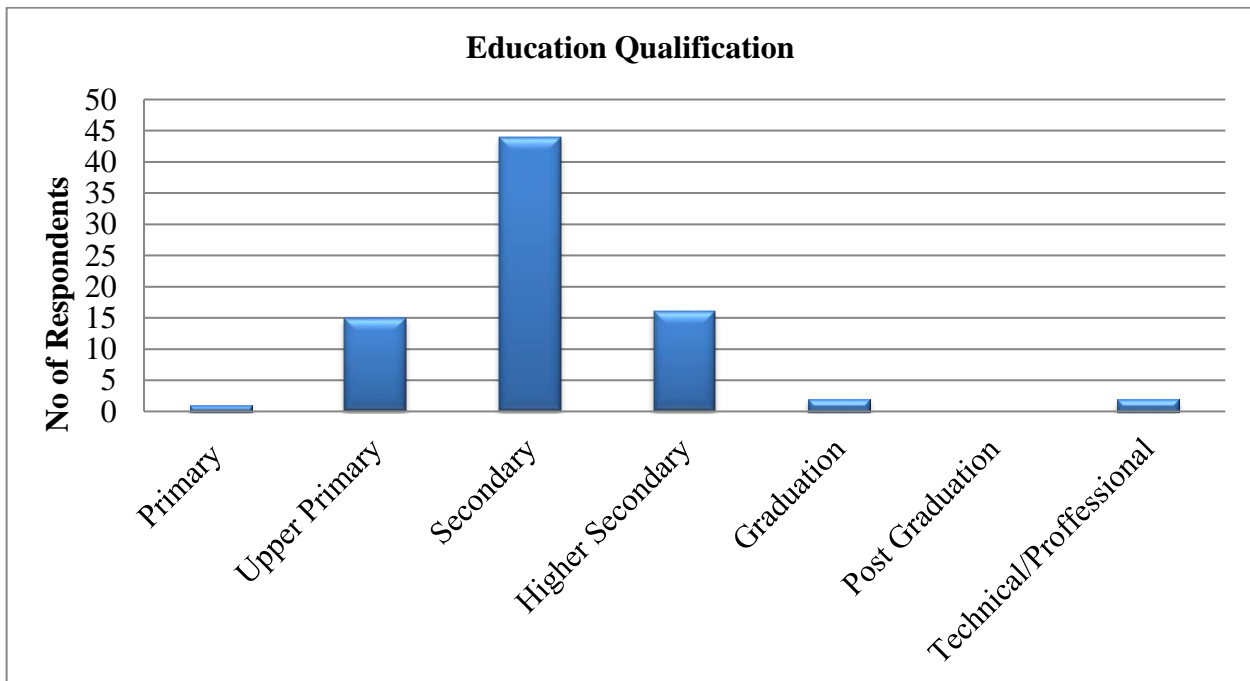


Source: Primary Data

1.6 - EDUCATION STATUS OF RESPONDENTS

Education status is a very important tool for everyone to succeed in life and get something different. It develops in us a perspective of looking at life, and helps us to build opinions and have points of view on things in life. Figure 1.3 explains the distribution of drivers according to their education status.

Figure 1.3 -Education Qualification of the Respondents

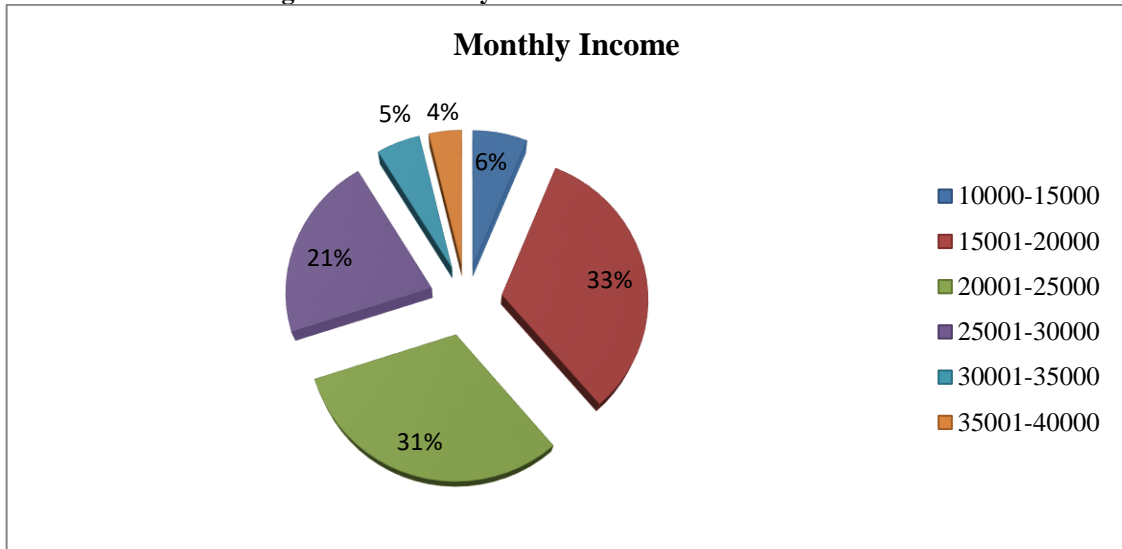


Source: Primary Data

1.7- MONTHLY INCOME OF RESPONDENTS

Income is an important factor which determines working and living conditions of auto rickshaw drivers. Monthly income is varied between every respondent. It will increase on the basis of the number of hours that they work and according to the contract works if any. Figure 1.4 shows the distribution of auto rickshaw drivers on the basis of their monthly income.

Figure 1.4 - Monthly Income of Auto rickshaw Drivers

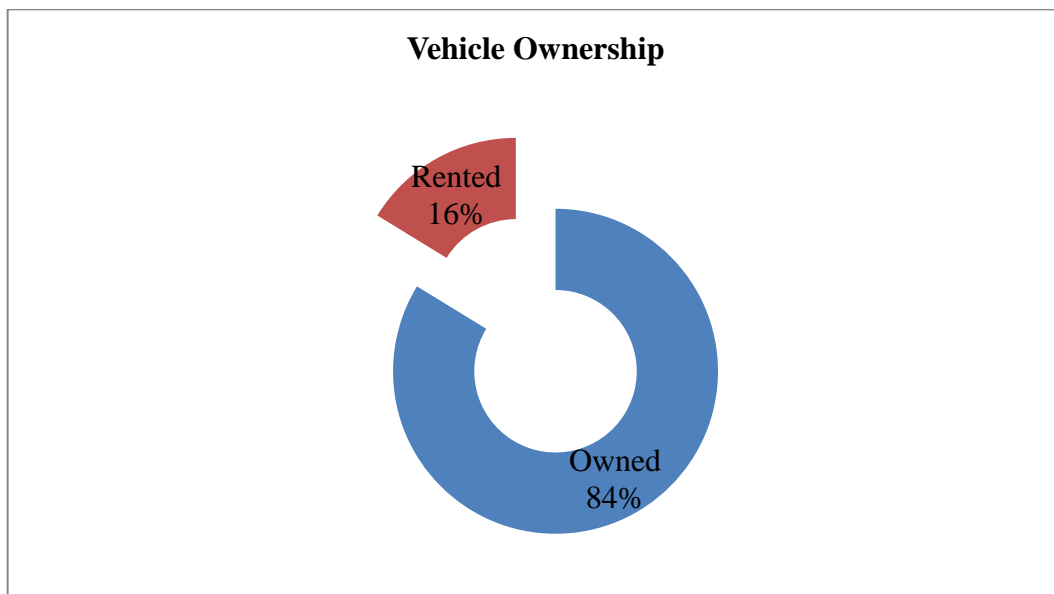


Source: Primary Data

1.8 - OWNERSHIP PATTERN OF AUTO RICKSHAW

Vehicle ownership is a tool used for understanding how many auto rickshaw drivers have ownership over their auto that they drive. Owners who has the responsibility to make maintainance over their auto, while the rented driver has to make payment for rent to the owners of auto rickshaw in a daily or weekly basis. Figure 1.5 illustrates the distribution of respondents by their vehicle ownership.

Figure 1.5 - Vehicle Ownership of Auto rickshaw Drivers

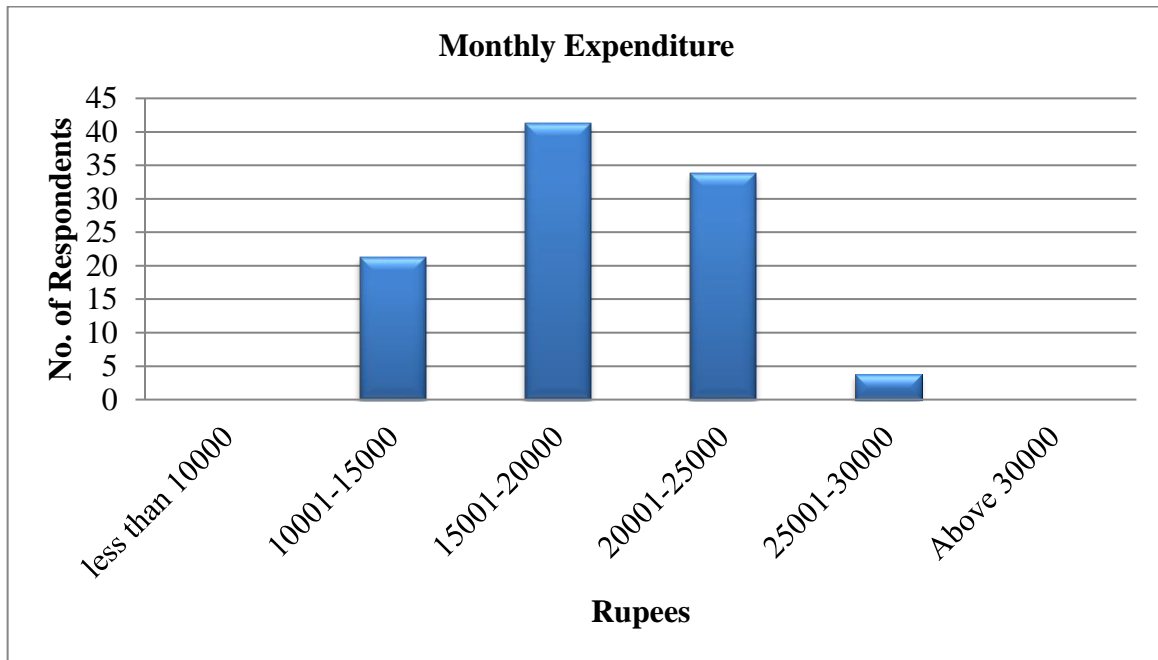


Source: Primary Data

1.9 - DISTRIBUTION OF RESPONDENTS BY MONTHLY EXPENDITURE

The monthly expenditure will affect the working condition and the life style of the auto rickshaw drivers. Here, the monthly expenditure is calculated on the basis of fuel cost, vehicle repair charge, household consumption, loan and other personal consumptions.

Figure 1.6 - Distribution of Respondents by Monthly Expenditure



Source: Primary Data

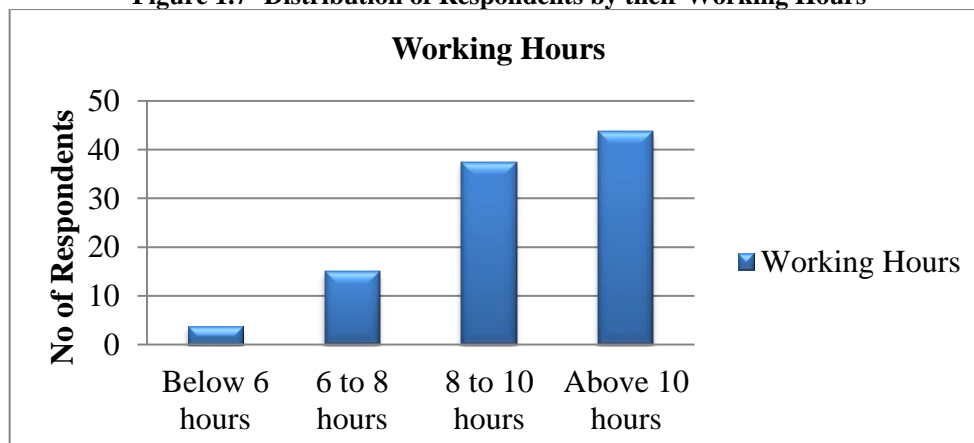
1.10 - BORROWING CHANNEL OF RESPONDENTS

Borrowing channel is used for understanding how many of them depend on different channels like bank, friends, fund, microfinance etc. for money. This gives an idea about the living condition of auto rickshaw drivers. The study reveals that 81.25% of the total population were depending upon borrowing channel while only 18.75% of the total respondents who has no such borrowing channel. The distribution of respondents on the basis different channels of borrowing shows that out of the total borrowers 95.38% respondents depended on bank as their borrowing channel. 26.15% depended on Funds. 18.46% respondents depended on friends for their borrowing channel, and 3.07% respondents depended on Kudumbasree, and 3.07% respondents depended on micro finance. It means that they depended on multiple channels to meet their expenditure.

1.11 - WORKING HOURS OF AUTO DRIVERS

Working hours influences the working conditions and health condition of the drivers. The working hours of auto rickshaw drivers are illustrated in the Figure.1.7. It reveals that majority of the total respondents work above 10 hours, it is about 43.75%. Secondly, 37.5% of the total respondents work from 8 to 10 hours. 15% of the respondents were working from 6 to 8 hours. Only 3.75 % of population were working below 6 hours.

Figure 1.7 -Distribution of Respondents by their Working Hours

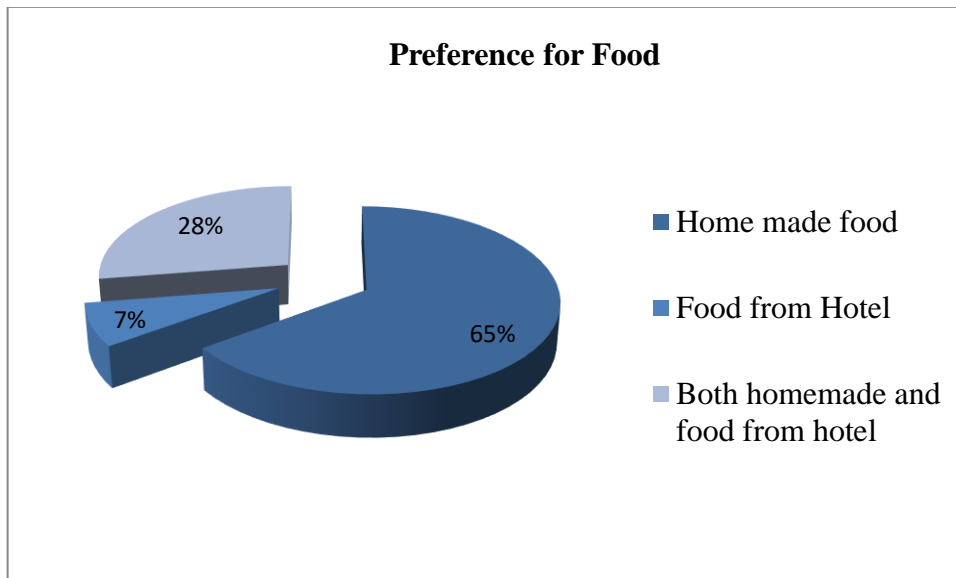


Source: Primary Data

1.12 - RESPONDENTS PREFERENCE FOR FOOD

An enquiry is made into the food pattern to understand whether the auto rickshaw drivers prefer homemade food or hotel food or both of these during their work. This helps to understand the quality of food that they eat and thereby their health aspects. This is well illustrated in the Figure 1.8.

Figure 1.8 -Distribution of Respondents by their Preference for Food



Source: Primary Data

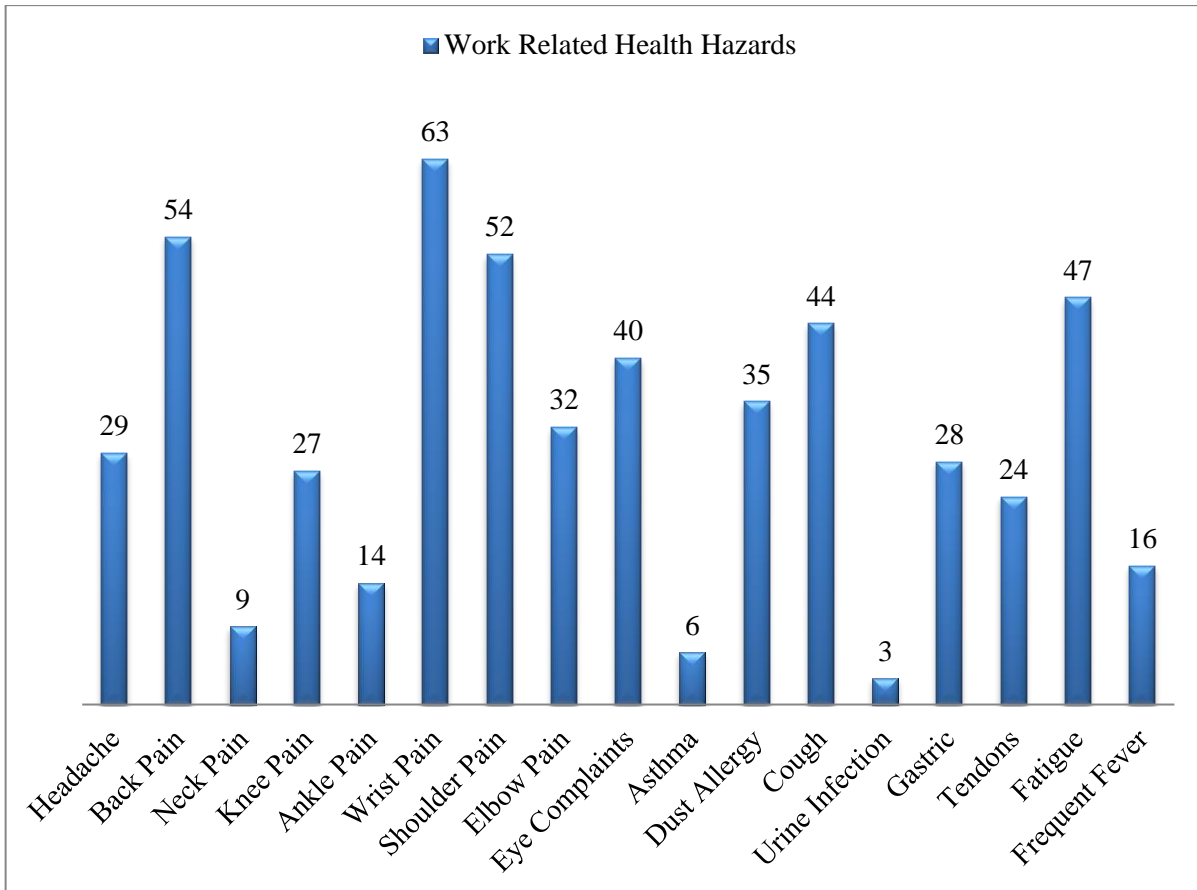
1.13 - OCCUPATIONAL HEALTH HAZARDS OF RESPONDENTS

Occupational health hazards have gradually increased in type and magnitude and have led to or aggravated diseases resulting from exposure to several risk factors, of which one being the work environment. In this study, health problems are mainly classified in to occupational health hazards and non-communicable diseases. Figure1.9. shows the health problems of auto drivers.

a) Work Related Health Hazards

Occupational health hazards are caused by the risk factors that they face during their working environment. Therefore, many factors arising from the work and or work environment play a role in development of such diseases. The study reveals that 78.75% of the respondents were suffering from wrist pain while driving. 67.5% of respondents were suffering from back pain, 65% of respondents were prone to shoulder pain, and this is caused because of continuous sitting postures. 58.75% of respondents suffer from fatigue.50% of respondents were having eye complaints. Dust allergy was caused by 43.75% of respondents (it is caused by the working environment). 40% of respondents have elbow pain. 36.25% of respondents were having headache, 35% of respondents have gastric problems, and 33.75% have knee pain and 30% of respondents develop ligament ailments. 20% of respondents were suffering from frequent fever. Only 11.25% of respondents having neck pain. Less than 10% of respondents facing asthma and urinary infection, female drivers face urinary problems because of poor sanitation facilities.

Figure 1.9 - Work Related Health Hazards



Source: Primary Data

b) Non-communicable Diseases

Non-communicable diseases are a medical situation that is not caused by infectious agents. It refers to chronic diseases which last for long period of time and progress slowly. 42.5% of respondents have blood pressure, 38.75% of respondents have cholesterol and 25% have sugar. Only 8.75% of respondents have cardiovascular disease and 1.25% have cancer.

1.14- HABITS OF RESPONDENTS (SMOKING, ALCOHOL CONSUMPTION, AND TOBACCO)

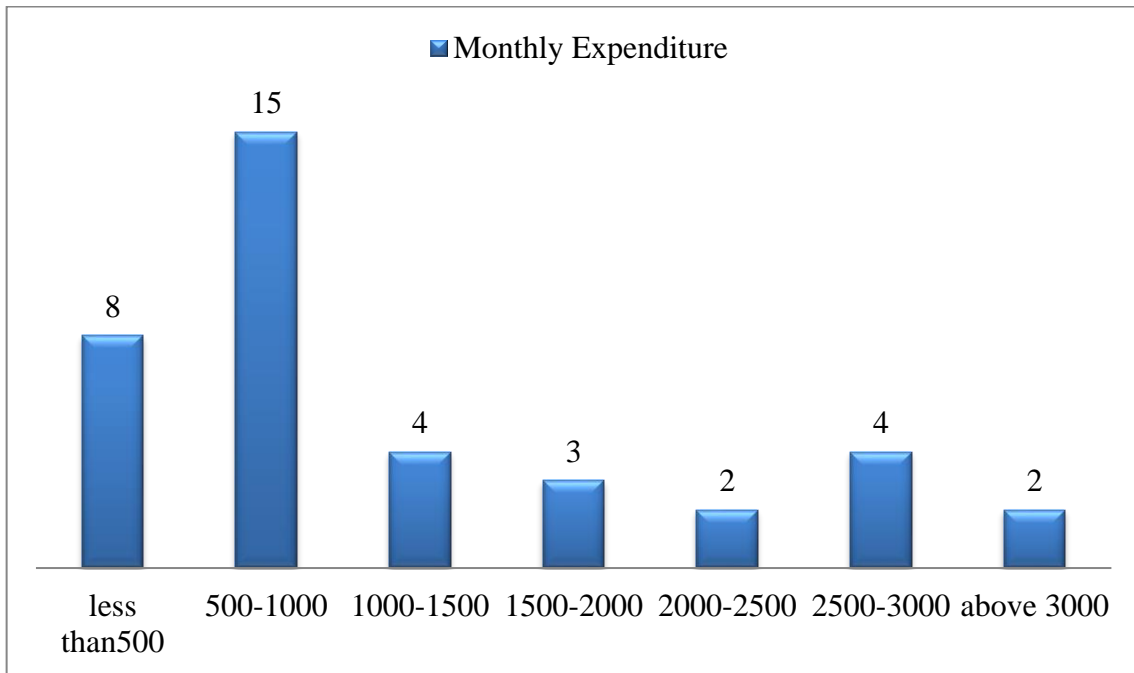
Smoking, alcohol consumption and tobacco are strongly paired behaviors, affecting the auto workers. This is an important factor to understand the health problems among auto rickshaw drivers.. More alcoholic or smoking person require huge amount for its purchase day by day, this will also increase their expenditure.

The study reveals that out of the sample respondents (except females) 2 respondents very frequently smokes, 5 respondents frequently smokes, 24 respondents were rarely smokes and 46 respondents were never smokes. It shows majority of the respondents will not smoke. But few of them are rarely smokes. In case of alcohol consumption, 2 respondents were very frequently consuming alcohol, 19 respondents were frequently consuming alcohol, 31 respondents rarely consume and 25 respondents never consume alcohol. Majority of the respondents were alcoholic addict. In the case to tobacco, of the total respondents, 1 respondent is very frequently chewing tobacco, 1 respondent is frequently chewing tobacco, 4 respondents were rarely chewing and 72 respondents were never chew tobacco. It shows majority of the drivers will not chew tobacco as comparing to all the other items.

1.15 - MONTHLY SPENDING FOR HEALTH HAZARDS AND MEDICAL CONSULTATION

The analysis shows the distribution of respondents on the basis of their consultation of medical specialist. It reveals that 52.5% of the total respondents were not consulted any medical specialist and 47.5% of the total respondents were consulted medical specialist for different health issues. Figure 1.10 shows the distribution of respondents on the basis of monthly expenditure for health hazards.

Figure 1.10- Monthly expenditure for health hazards

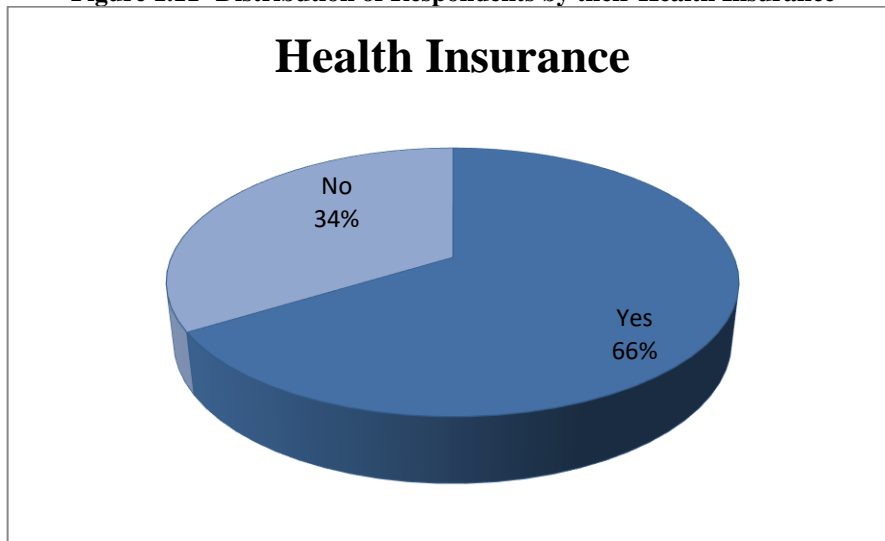


Source: Primary Data

1.16- HEALTH INSURANCE OF RESPONDENTS

Distribution of respondents on the basis of the health insurance is illustrated in Figure 1.11.

Figure 1.11 -Distribution of Respondents by their Health Insurance



Source: Primary Data

1.17 - FACTORS THAT ADVERSELY AFFECT WORKING ENVIRONMENT

A good working environment is one of the most important elements which determines the health and mental condition of workers. Therefore, work environments should be safe and healthy. But there are many factors which adversely affect the working environment of the auto rickshaw drivers. It also shows the range were respondents affects whether it will be high, low, medium or anything else.

There are 7 major factors which adversely affect the working environment of the auto rickshaw drivers. They are vibration, noise, dust, lack of fresh air, lack of drinking water, lack of sanitation facilities and light. Among these factors, dust (55%) and lack of fresh air (27.5%) were very highly affecting the working environment of drivers. Lack

of drinking water (2.5%) and lack of sanitation (3.75%) affected very highly to few drivers. Light (21.25%) and noise (15) were also considered as a very high affecting factor. The respondents give high response to light (28.75%) as an affecting factor of working environment. Lack of fresh air (16.25%), vibration (15%) and noise (15%) are the other factors highly affect the working environment of drivers. Lack of sanitation facilities (1.25%) and lack of drinking water (3.75%) affect only few drivers. The factors like lack of drinking water facility (62.5%) and lack of sanitation facility (43.75%) were very low affected by the drivers. Vibration was affected very low to 30% of respondents. Dust (5%), light (6.25%) and lack of fresh air (12.5%) were very low affected to few drivers; it means the above variables affected the working environment more. Lack of sanitation facilities (37.5%) and noise (33.75%) were the factor low affected the working environment of drivers. Noise and dust were medium affected to 21.25% of drivers each. The study reveals dust, lack of fresh air, and light are considered as the important factors which adversely affect the working environment of drivers.

1.18 - JOB SATISFACTION OF RESPONDENTS

Job satisfaction is one of the important factors for understanding the stress that the auto rickshaw drivers face during their work. When certain job satisfaction factors reach a level, a workplace environment becomes not only more palatable but, in fact, even enjoyable. But the cause of job satisfaction varies from worker to worker, even among workers in the same work place. What one worker may rate as a high-contributing component to his job satisfaction, another worker may place further down the lines of his priorities. The study reveals that 76.25% of the total respondents were satisfied with their job. Only 23.75% of the respondents were not satisfied with their existing work.

The 57.9% were not satisfied with their job because of the poor income that they get from it. 26.3% were not satisfied because of lack of savings from the job, 10.5% were not satisfied because of high cost that they face from the job and 5.3% respondents face strain associated with work. Because of all these reasons 23.75% of the total respondents were unsatisfied with their existing work.

1.19 - SUGGESTIONS FOR REDUCING OCCUPATIONAL HEALTH HAZARDS

Improper diet, alcohol consumption, smoking, tobacco use, careless driving results in many occupational health hazards. Lack of sanitation facilities were also affects the health of auto rickshaw drivers especially the females. 93.75% of respondents suggested for eat healthy food to reduce occupational health hazards. 88.75 % respondents suggested for providing better sanitation facilities. 73.75% respondents suggested for abstain alcohol and drug use and for ensuring regular and frequent breaks while driving. 70% respondents suggested to reduce the amount of night works and finally, 53.75% of respondents suggested for counselling and awareness to the drivers who drunks, smoke, tobacco users and to youths about increasing accidents.

1.20- FINDINGS

- It is observed that the majority of the auto rickshaw drivers that is 82.5% belongs to the nuclear family system and only 17.5% of drivers belongs to the joint family system.
- It is found that 83.75% of the total respondents were using the autos owned by them and only 16.25% of respondents were using rented autos.
- 41.25% of the respondents have a monthly expenditure of Rs. 15001-20000/-. 33.75% of respondents have a monthly expenditure of Rs. 20001-30000/-. Only 3.75% of respondents have expenditure between Rs. 25001-30000/-.
- It is noticed that the 81.25% of the total sample were depending upon borrowing. Only 18.75% were not depended on such borrowings. 95.38% were depended up on bank, 26.15% depended on fund, 18.46% on friends and 3.07% each depends on kudumbasree and micro finance. It means that some of them were depended multiple channels to meet their expenditure.
- It is observed that 61.25% of the respondents were engaged in day shift and 38.75% were engaged in day-night shift.
- Percentages of working hours are different for different respondents. 43.75% of respondents were working for above 10 hours. 35.75% of them work for 8- 10 hours. It means that majority work above 8 hours.
- Respondents mainly preferred food from home, hotel and from both home and hotel. Here, 65% of respondent's preferred homemade food and only 7.5% preferred hotel food. Rest were prefer both home and hotel food.
- It is found from the study, all the respondents may suffer occupational health hazards like back pain, wrist pain, shoulder pain, elbow pain, neck pain, asthma, cough, eye complaints etc. Of this wrist pain is affected among most of the respondents, it is about 78.75%. Some of the respondents were also suffering from non-communicable diseases. 42.5% were having blood pressure.

- It is observed that 52.5% of respondents never consulted medical specialist and 47.5% were consulted medical specialist for their health hazards.
- It is found that 66.25% of drivers have health insurance and only 33.75% has no such health insurance.
- It is found that there are mainly seven factors which affect the working environment of the auto rickshaw drivers. Of these lack of rest (55%) and lack of fresh air (27.5%) were very highly affected the working environment of auto rickshaw drivers. Drinking water facility (62.5%) and lack of sanitation facility (43.75%) were least affected by the drivers. Light from other vehicles highly affected the working environment of drivers.
- The study shows that 76.25% of the total respondents were satisfied with their job. Only 23.75% were not satisfied with their existing work. These 23.75% were not satisfied because of poor income, no savings, high cost and strain associated with work.
- It is noticed that 93.75% of respondents were suggested for eating healthy foods. 88.75% were suggested for providing better sanitation facilities in their stand. 73.75% were advised to abstain from alcohol and drug use and also suggested to make regular and frequent breaks while driving. 70% of respondents were suggested to reduce the amount of night works and 53.75% of respondents were suggested for counselling and awareness to the drivers.

1.21- SUGGESTIONS

- The suggestion to formulate some welfare schemes to the auto rickshaw drivers. This scheme will help them to improve their living conditions.
- It is suggested to promote health insurance for all the auto rickshaw drivers. It helps them to reduce their cost on health hazards.
- It is suggested for the government to provide better sanitation facilities in every stand. Due to the increase in lady auto rickshaw drivers, it has become a necessary one.
- Drivers cannot eat their food at proper time because of their nature of work. So they should find enough time to eat their food at time. Otherwise it results in gastric like health issues.
- It is suggested to provide proper awareness to the upcoming auto rickshaw drivers about the seriousness of driving and all the rules that they should follow by the motor vehicle department.
- Use mask while driving auto rickshaw, then only dust problems can be solved to an extent.
- Continuous sitting postures among auto rickshaw driver's results in different health hazards like back pain, shoulder pain, wrist pain, elbow pain etc. It can be reduced slightly by taking some breaks during their work.
- It is suggested to give awareness to avoid alcoholic consumption, smoking and tobacco chewing while driving or during their working hours.

1.22- CONCLUSION

Auto rickshaws are an important part of urban mobility and a step to improving sustainable transportation, as well as quality of life in Indian cities. Integrating auto rickshaw services as a feeder mode complements public transport and door to door services, providing an alternative to private vehicles. They are the principal input in determining the productivity of the road transportation sector in the state. But the worst working environment results in many health issues to auto drivers.

The present study observes the various problems faced by auto rickshaw drivers. The problem such as occupational health hazards, non-communicable diseases, and the working conditions like their economic situation etc. The importance of this study is to understand the important health issues that faced by auto rickshaw drivers because of the nature of work and also make some suggestions to reduce these health issues. The working environment like dust, poor sanitation facilities etc. create many health issues. The study also focused on the economic condition of the auto rickshaw drivers like their monthly income that they got and the monthly expenditure that they bear. Rise in expenditure with a decline in income may adversely affect their life.

The overall analysis of the study revealed that the auto rickshaw drivers suffer many health issues. Not only work related health problems but also the non-communicable diseases because of their life style behaviors. Only some drivers were having a better economic condition. It is because they were also engaged in contract works. The working hours of drivers are not fixed; they have to work in dusty environment, continuous sitting postures etc. creates many health issues.

**BIBLIOGRAPHY**

1. Anitha Ramachander et al (2015). Financial well being of auto drivers in Bangalore- A study conducted under Research Promotion Scheme of AICTE, ISSN 2278-2540, Volume 4, Issue 8, 17-22.
2. Bindu Bhatt et al (2012). Occupational Health Hazard: A study of Bus Drivers, journal of Health Management, 201-206.
3. Dr. Swapnil Jail et al (2018). A study of cardiovascular disease risk factor in Gwalior city, MP, International Journal of Medical and Health Research, ISSN: 2454-9142, 162-165.
4. Girish H.O et al (2016). Risk factor of cardiovascular diseases among auto rickshaw drivers of Kannur, North Kerala: A cross sectional study, ISSN: 2394-6040, volume 3, Issue 12, 3395-3398.
5. Ibrahim Farooque et al (2014). Pulmonary function tests in non smoking auto rickshaw drivers, US National Library of Medicine enlisted journal, 240-243.
6. M. Yesurajan et al (2017), Common work related health problems of auto rickshaw drivers in India- Causes and Strategies, International Journal of Applied Research, 232-236.
7. Sayooj Kumar K.P (2017). Socio-economic and health status of auto rickshaw drivers of Calicut city, International Journal for Emerging Technologies and Innovative Research, volume 4, Issue 11, 981-987.
8. Shubankar Adhikari et al (2018). Respiratory symptoms among auto rickshaw drivers in Mangaluru, International Journal of Medical Science and Public Health Volume 8, Issue 2, 136-139.
9. S.S Chaudhary et al(2011), Prevalence of cardiovascular diseases risk factors among auto rickshaw drivers, Indian Journal of Community Health, volume 22.
10. <http://www.the-guardian.com>
11. [http:// m.economic times.com](http://m.economic-times.com)