



KNOWLEDGE, ATTITUDE, AND PRACTICES FOR COMMON LIFESTYLE DISEASES AMONG COMMERCIAL PROFESSIONAL DRIVERS: A CROSSECTIONAL STUDY

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ABSTRACT

Introduction: Commercial professional drivers are at risk of developing various metabolic diseases as they are exposed to various risk factors due to the nature of their work. The study highlighted the knowledge, attitude, and practices towards various lifestyle diseases and their risk factors in the Sagar district of Central India. **Method:** A cross-sectional study was conducted among 496 drivers. A face-to-face interviewer-administered questionnaire was conducted and translated into the local language to make it easier for study participants to understand. It contained 4 parts: socio-demographic, general knowledge, attitude towards the risk factors, and practice towards risk factors. The data was entered into SPSS. The multivariate and univariate logistic regression analyses were computed to identify associated factors. Odds ratios and their corresponding 95% confidence intervals were determined. **Results:** 189 considered hypertension as the main disease and 121(24.39%) as diabetes as a fatal disease occurring due to smoking and tobacco chewing. Approximately half of the respondents smoked more than 10 cigarettes per day. About 56.45% believe blood pressure checkups should be done every six months. About 217(43.75%) of the participants are in favor of reducing the chance of diabetes through medication. Moreover, 401(80.84%) were ready to quit smoking and alcohol consumption. Only 71(14.31%) of the participants monitor BP regularly. A higher proportion of the respondents 310(62.5%) had reduced sugar intake and only 183(36.89%) got their blood sugar checked regularly. **Conclusion:** Periodic training/orientation programs for all drivers for adherence with appropriate knowledge, attitude, and practice toward decreasing cardiovascular risk factors should be conducted.

KEYWORDS : Professional Drivers, Knowledge, Attitude, Practices

INTRODUCTION

A discussion paper, on the development of an implementation roadmap 2023-2030 was put forth by WHO for the WHO global action plan for the prevention and control of non-communicable diseases 2023-2030. Changes in dietary patterns, decreased physical activity, and increased smoking are the main causes of non-communicable diseases in recent years [1]. Several studies have found that drivers are more prone to occupational stress, physical inactivity, and limited rest and to combat this stress they smoke, and overeat unhealthy food. (2-4).

The majority of professional drivers are at an increased risk of coronary heart disease/cardiovascular diseases due to unfavorable lifestyle habits, chemical and psych social factors, and also fitness is considered as risk factors. (5). Due to this working environment they had a higher prevalence of hypertension, diabetes, and smoking (6). Health equity has been awarded a particularly high priority for all citizens (7). Exercise programs, increased lifestyle physical activity improves cardiorespiratory fitness (8) However, less focus has been given to this profession to ensure its workers are healthy.

To the best of our knowledge, there has never been any health intervention directed by the government at improving the health condition of taxi drivers. Substantiated evidence suggests that a healthy lifestyle, including healthy eating and regular physical activity, can help reduce weight, blood pressure, and sugar levels and improve lipid disorders. . Consequently, the current study will contribute to the existing data and will fulfill the paucity of research in

this area. The aim and objectives of this study are to assess professional drivers' knowledge, attitude, and practice toward cardiovascular risk factors.

METHODS AND MATERIALS

Study Design, Setting, and Period

A cross-sectional study was conducted among professional drivers in the Sagar district of Central India. The study was conducted from the month of January 2023-March 2023.

Study Population.

All professional transport drivers that were working on the taxi, trucks and long run bus of Sagar town during the data collection period were the study population.

Inclusion Criteria.

All drivers that drive taxis, long-run bus, and trucks in the Sagar district and that volunteered to participate were included in the study.

Exclusion Criteria.

Those who work temporarily, and drivers who were not available during the data collection period.

Dependent Variables.

These include knowledge of drivers towards the risk factors; attitude of drivers towards the risk factors, and practices of drivers towards the risk factors.

Independent variables.

These include the socio-demographic characteristics of the participants and related environmental factors.

Sample Size Determination.

A single population proportion formula $n = Z_{1-\alpha/2}^2 p(1-p)/d^2$, was used to estimate the sample size where n is the required sample size, $Z_{1-\alpha/2}$ is the value for a level of confidence (1.96), p is the proportion of 50, 95% confidence level ($Z = 1.96$). Based on this formula, a sample size of 496 was calculated. Twenty-two drivers were unwilling to complete the questionnaire. Another 43 drivers said they did not have time to participate in the research. Thus, a total of 496 drivers (response rate 73.7%) who operated within the city were included. Finally, data were collected from eligible subjects using face-to-face interviews and observation.

Data collection tool and procedures.

A face-to-face interviewer-administered questionnaire was adapted from different works of literature. The questionnaire was then translated into the local language to make it easier for study participants to understand. It contained 4 parts: socio-demographic characteristics, general knowledge of the participant, attitude towards the risk factors, and practice towards risk factors.

Statistical Analysis

The data was checked for its consistency, completeness, and validity. After checking the collected data, it was entered into Statistical Package for the Social Sciences (SPSS) version 20 statistical software for analysis. Descriptive analysis was computed and results were presented using texts, graphs, diagrams, and tables. The multivariate and univariate logistic regression analyses were computed to identify associated factors. Odds ratios and their corresponding 95% confidence intervals were determined. Statistical significance was set at a 95% confidence interval using a P-value of ≤ 0.05 as a cutoff point.

Ethical Considerations

Ethical clearance was obtained from the institutional ethical committee. Oral and written informed consent was obtained from the study participants before the commencement of the data collection and confidentiality of the information was ensured throughout the study.

RESULTS

Socio-Demographic Characteristics of Study Participants:

A total of 496 drivers, participated in this study. The mean and median age was 36.75 years (± 8.15 years) with the majority being in the age range of 31-40 years 193(38.91%). The majority of the respondents 281(56.65%) were high school learners in their educational status and over half 273(55.04%) of the respondents belonged to rural areas. The majority of drivers 430(86.69%) were married and about 40 % of the participant's monthly income was between 10001-20000 rupees 201(40.52%) Table 1.

Table 1. Sociodemographic characteristics of the population (n = 496).

Characteristic	N (%)
Age (years)	
21-30	101(20.36%)
31-40	193(38.91%)
41-50	129(26%)
51-60	56(11.29%)
61-70	17(3.42%)
Place of residence	
Urban	223(44.95%)
Rural	273(55.04%)
Educational status	
Illiterate	17(3.42%)
Primary	71(14.31%)
High School	281(56.65%)
Graduate	127(25.60%)
Marital status	
Unmarried	62(12.5%)
Married	430(86.69%)
Divorced	4(.80%)
Monthly income in rupees	
Up to 10000	134(27.01%)
10001-20000	201(40.52%)
20001 and Above	161(32.45%)

Knowledge of the Study Participants:

The study showed that the overall knowledge of the participants about the occurrence of disease was 100%. One hundred eighty-nine (38.10%) of the drivers considered hypertension as the main disease and 121(24.39%) of respondents considered diabetes as an important fatal disease occurring due to smoking and tobacco chewing, while 5(1.00%) of them were uncertain. However, approximately half of the respondents 256(51.61%) smoked more than 10 cigarettes per day. Moreover 245(49.39%) of the participants consume alcohol daily and 79(15.92%) have never consumed it. The study suggests 100% of participants know that drinking alcohol affects their health. The majority of study subjects 433(87.29%) do take processed food every day. Almost 360 (72.58%) of the respondent lacked physical activity and 310(62.5%) had very less sleep duration Table 2.

Table 2. Knowledge of drivers towards lifestyle diseases and their risk factors.

Characteristic	N (%)
Do you think smoking and tobacco chewing affect health?	
Yes	496(100%)
If yes then name the disease that could be caused by smoking and tobacco chewing	
Hypertension	189(38.10%)
Diabetes	121(24.39%)
Stroke	111(22.37%)
Cancer	70(14.19%)
Don't know	5(1.00%)
Current cigarette smoking	
<10 cigarettes/day	240(48.38%)
>10 cigarettes/day	256(51.61%)
Alcohol consumption	
Never	79(15.92%)
Occasional	172(34.67%)
Daily	245(49.39%)
Can drinking alcohol affect your health?	
Yes	496(100%)
No	(0%)
Do you take processed food/fast food/fried food /snacks?	
None	63(12.70%)
Everyday	433(87.29%)
Do you do physical activity?	
None	360(72.58%)
Everyday	136(27.41%)
Sleep duration	
<6hrs	310(62.5%)
≥ 7 hrs	186(37.5%)

Attitude of the Respondents:

The study showed that all the drivers agreed that BP should be checked regularly and more than half 280(56.45%)believe that it should be done every six months. About 217(43.75%) of the participants are in favor of reducing the chance of diabetes through medication. Moreover, 401(80.84%) were ready to quit smoking and alcohol consumption. All the respondents admitted that unhealthy food and lack of physical activity lead to obesity and lack of sleep may cause road accidents Table 3.

Table 3. An attitude of drivers towards lifestyle diseases and their risk factors.

Characteristic	N (%)
In HTN is it important to have BP checked?	
Agree	496(100%)
Disagree	0(0%)
If yes BP should be checked	
Monthly	18(3.62%)
Every three months	198(39.91%)
Every six months	280(56.45%)
What can an individual do to reduce the chance of getting diabetes?	
Improve diet	78(15.72%)
Taking medication	217(43.75%)
Both	201(40.52%)

Are you ready to quit smoking, tobacco chewing, and alcohol consumption habit	
Yes	401(80.84%)
No	95(19.15%)
Do you think unhealthy food habits cause obesity?	
Yes	496(100%)
Do you think a lack of physical activity can lead to obesity?	
Yes	496(100%)
Do you think lack of sleep can cause road accidents?	
Yes	496 (100%)

Practices of drivers:

Only 71(14.31%) of the participants monitor BP regularly. A higher proportion of the respondents 310(62.5%) had reduced sugar intake and only 183(36.89%) got their blood sugar checked regularly. The majority of respondents 455(91.73%) had decreased salt and oil intake. The very less than 6 (1.20%) of the participants had stopped taking alcohol and smoking and 126(25.40%) stopped eating junk foods. About 346(69.75%) of the study participants do physical activity Table 4.

Table 4. The practice of drivers towards lifestyle diseases and their risk factors.

Characteristic	N (%)
Do you monitor your BP regularly?	
Yes	71(14.31%)
No	425(85.68%)
Have u reduced eating sugar?	
Yes	310(62.5%)
No	186(37.5%)
Do you get blood sugar checks regularly?	
Yes	183(36.89%)
No	313(63.10%)
Are you taking medicines for BP/diabetes/heart?	
Yes	393(79.23%)
No	103(20.76%)
Did you stop eating junk food/aerated cool drinks?	
Yes	126(25.40%)
No	370(74.59%)
Have you decreased your salt/ oil intake?	
Yes	455(91.73%)
No	41(8.26%)
Are you doing any physical exercise?	
Yes	346(69.75%)
No	150(30.24%)
Have you stopped smoking/alcohol consumption?	
Yes	6(1.20%)
No	490(98.79%)

DISCUSSION

The current study aimed to investigate the knowledge, attitude, and practices for common lifestyle diseases among commercial professional drivers in the Sagar district of central India. The literature shows that individuals who are in the long-duration driving occupation, have a high likelihood of developing cardiovascular diseases compared to other professionals. (9-12). These studies in addition also identified age, long hours driving duration and physical inactivity as factors that accelerate the onset of the diseases (13-16).

Moreover, like in the other studies, the majority of occupational drivers in this study reported low quality and sleep related problems. (17,18). This could be due to long and irregular shift hours. They cite reasons such as the need to secure passengers who start work early and those who knock off late in the evenings from work because of their long working hours.

In the current study, it was observed that more than 10 cigarettes were smoked per day by many drivers. and smoking increased their likelihood of developing these diseases by up to two times. Robert found higher percentage of drivers with the habit of smoking more than 10 cigattes per day and are interestesed in quitting the habit like our study group (19).

According to Myers et al. (20), active individuals generally have a low

risk of developing metabolic diseases. Additionally, the aforementioned studies found that even minimal physical activity (21) has significant benefits for reducing metabolic risk.

Other interesting results from the current research were alcohol consumption by the participants which increased the risk of these diseases by up to two times. Hernández-Rubio et al. (22) and Fan et al. (23) found that heavy drinking is independently associated with metabolic risk factors such as impaired fasting glucose/diabetes mellitus, abdominal obesity, hypertension, and dyslipidemia.

Our current study further found an increased intake of **processed food/fast food/fried food /snacks**. Flores et al. (24) showed that most of the fast food sold by vendors is not healthy as they are deep-fried, which is associated with cardiovascular risks. For instance, upon investigating a Mediterranean cohort of young Asian adults, Sayon-Orea et al. (25) and Kang and Kim (26) found association between obesity, and hypertension and the frequency of consuming fried foods. In agreement with this study's results, a significant relationship was also shown between junk food and the hypertension and obesity in Iranian children and adolescents (27).

Limitation

Despite the notable and important results of the current study outlined above, there are a number of limitations to this study that need to be considered. First, the study was cross-sectional. Hence, causal inferences cannot be drawn from this study's results. Second, the results of the current study focused only on Sagar district male drivers. Therefore, they can only be generalized to occupational drivers in the long-duration driving business but not to the general population. Finally, even though most of the major confounders have been taken into account in most of the studies, there is still a chance of unmeasured and residual confounding factors impacting the current study.

CONCLUSION

Periodic training/orientation programs to all drivers for adherence with appropriate knowledge, attitude, and practice toward decreasing cardiovascular risk factors should be conducted. Awareness creation campaigns towards the importance of good quality of life need to be done. Proper reinforcement measures from local government bodies to strictly monitor the practice of health checkups has to be performed.

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In this research, the KAP questionnaire was developed and tested among 3000 drivers

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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