

# PRIVATE BUS DRIVERS STRESS MANAGEMENT IN NORTHERN TAMILNADU: A QUALITATIVE STUDY

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#### Abstract

Indians are still using the public transportation especially bus only for their personal and professional travel. Bus drivers have crucial role on the safe and happy journey of passengers. Their working conditions and the environmental factors are highly influencing their work stress. Thus work stress becomes inevitable to the bus drivers. There are various stressors to them. This study carried out the survey of 320 respondents from Northern Tamilnadu through convenience sampling. Research findings are exhibited after the analysis and interpretation of collected data through percentage analysis, chi-square test, weighted average method and Anova Methods. This research paper highlights the work stressors, environmental stressors and various stress management measures of the private bus drivers in the study areas. It has found that demographic profile (work and sleep hours, work route, Age & work experience) are highly influencing their work stress level. Private bus drivers can manage their job stress through Take breathe/ relax, Hearing songs, Positive thinking, Sports or Exercise, Chat with friends, mobile phone usage and Regular outings.

Keywords: Stress, Stressors, Private Bus Drivers, Stress Management

# **INTRODUCTION**

Stress is A state, which is accompanied by physical, psychological or social complaints or dysfunctions and which results from individuals feeling unable to bridge a gap with the requirements or expectations placed on them in accordance with European Agreement on stress at work. Bus drivers are the main pillars of the bus transportation service to make safe and happy journey to the passengers.

Thus the bus drivers' working conditions, safety and stress are significant factors to make them happy, safe and healthy. Margherita Bergomi. et.al (2017) there are various stress management interventions such as ergonomic seats, barriers between drivers and passengers, specific individual training for possible behaviors, providing information to workers about risks & adequate rest intervals between shifts.







These measures are improving their health & also safety of passengers. Town bus drivers are working with most demanding, stressful, & unhealthy working conditions with high mortality & morbidity rates.

Bus drivers encounter considerable occupational stressors including traffic congestion, conflicts from passengers, rotating shift schedules, poor cabin ergonomics, and tight time schedules. The working environment and job characteristics of professional bus drivers make them vulnerable to specific health problems, leading many to retire earlier owing to disability.

Ariharan. V and Dr. Rajandran (2019) When comparing to private bus drivers, private sectors transport employees are facing more challenges and stress due to their demanding job nature and demands. Durgamani, Suresh & Sethuraman (2022) Private drivers should be service oriented and had expected to maintain good contact with passengers. Also they got stressed because of reaching the destination on time with safe journey.

### LITERATURE REVIEWS

Ching-Fu Chen\*, Yuan-Chun Hsu (2020), the study concluded that work-family conflict & role overload (job demand factors) was positively related with emotional exhaustion, & organisational support (job resource factor) was negatively related with emotional exhaustion. Job satisfaction positively led to life satisfaction, while organisational commitment negatively related with turnover intention.

Zhao Y (2019) Work shifts and Scheduling should be well-established since they are highly harmful to health and well-being of any workers. M.R Winkler (2017) Workers with more control over their schedules and shifts are feeling higher health issues than those with little control. Also, Brauner. et.al. (2019) Less sleeping hours (<6 h per day) & Long work hours are greatly associating with metabolic and cardiovascular diagnoses.

Thus it is clear that work scheduling and work hours are major determinants of drivers health outcomes. With the help of latest technology, the transport operators should make proper work scheduling and shifts to their drivers in order to reduce the impacts over drivers' fatigue, health and well-being.

Nataliia Borodina.et.al (2021), study aimed at improvement of procedure for professional risk assessment of passenger bus drivers, considering individual, psychosocial, ergonomic, as well as hygienic factors. The developed checklist for rapid assessment of occupational risk of drivers, taking into account the influence of harmful production factors, contributing to the manifestation of occupational diseases, has been developed.

The peculiarity of this approach is a certain interrelation between the integral criterion of occupational risk of a driver and the indicators characterized by: ergonomic, psychosocial, individual and hygienic factors, formed by working conditions of a driver while transporting the passengers.

Margherita Bergomi. Et.al (2017) it has an objective of integrated, objective and subjective assessment of work stress with consideration of the role of personality traits of Italian bus







drivers. Research findings are that certain personality characteristics had remarkable role over vulnerability of bus drivers to stress especially neurotic & impulsive traits had highly associated with higher stress perception.

Also the stress management interventions are ergonomic seats, barriers between drivers and passengers, specific individual training for possible behaviors, providing information to workers about risks & adequate rest intervals between shifts. These measures are improving their health & also safety of passengers.

Dev, Samrat & Gangopadhyay, Somnth. (2022). this study is aimed on evaluating Kolkata city bus drivers occupational stress factors & their effects among their social and professional life. WHOs Quality of Life Questionnaire & Occupational Stress Index (OSI) had used for this study. Results indicated that bus drivers had stressful work environments so they had poor quality of life (social and professional). This had direct impact with drivers safety, comfort & overall productivity.

Sekkay F (2019) Musculoskeletal injuries and accidents are happening a lot because of bus drivers physical environment and external factors like weather or road conditions.

#### RESEARCH OBJECTIVES

- 1) To study the various work stressors related to their working conditions of the Private bus drivers in Northern TamilNadu.
- 2) To know the work stressors and its management in the selected study area.
- 3) To offer suitable recommendations on improving their work life & reducing their work stress of Private bus drivers.

#### **METHODOLOGY**

Proper research work depends on its data collection of both primary and secondary data. Here Researcher collected its primary data through issuing structured questionnaire among private bus drivers of Northern Tamilnadu. Also we gathered research oriented secondary data with the help of previous research papers, newspaper articles, reports, websites, etc. Research study's population covers Private town bus drivers (TNSTC Vilupuram) of Northern Tamilnadu. It has 1300 private drivers in northern Tamilnadu. From the finite population size of 1300, sample size is measured as 320 in Northern Tamilnadu through following formula Simple random sampling method was used to select the sample. Collected data is analysed and interpreted through Percentage analysis, Chi Square Test and Regression Analysis. Research findings and conclusion are proposed through the outcomes of this data analysis and interpretation.

# DEMOGRAPHIC PROFILE OF PRIVATE DRIVERS

Here the demographic profile of private drivers is studied with their marital status, age, work experience and weekly working hours.





**Table 1: Demographic Profile of Private Drivers** 

DEMOGRAPHIC PROFILE	RESPONDENTS	PERCENTAGE				
MARITAL STATUS						
Unmarried	202	63				
Married	118	37				
AGE						
Below 25 Yrs	54	17				
26-35 Yrs	117	37				
36-45 Yrs	119	37				
46 - 55 Yrs	30	9				
More than 55 Years	0	0				
WORK EXPERIENCE						
Below 5 yrs	68	21				
5.1 - 10 yrs	198	62				
10.1 - 15 yrs	25	8				
15.1 – 20 yrs	24	7				
Above 20 yrs	5	2				
WEEKLY WORKING HOURS						
Less than 40 hours	30	9				
41 to 50 hours	74	23				
51 to 60 hours	118	37				
61 to 70 hours	42	13				
More than 70 hours	56	18				

Above table inferred that more than 60 per cent of bus drivers are unmarried. Majority (60 per cent) of the bus drivers are aged below 35 years. More than sixty per cent of drivers have 5 to 10 years of work experience. More than 70 per cent of drivers are working 50 to 70 hours per week.

## **CHI SQUARE TEST**

# Association between Levels of Work Stress Based On Their Demographic Profile of Private Bus Drivers

Here chi square test has been done to find the significant relationship between the demographic profile and level of work stress of Private bus drivers.

**Null hypothesis (Ho):** There is no significant relationship between demographic profile and level of work stress of the Private Bus Drivers.

**Alternative hypothesis (H1):** There is a significant relationship between demographic profile and level of work stress of the Private Bus Drivers.





Chi-square test has the following computed results presented at below table:

S. No	Association - Factors	Chi Square Value	'p' Value	Result
1	Age and Level of Work Stress	88.650	0.000	Null hypothesis is rejected
2	Work Experience & Level of Work Stress	109.69	0.000	Null hypothesis is rejected
3	Weekly Working Hours and Level of Work Stress	60.995	0.000	Null hypothesis is rejected
4	Nature of Driving route and Level of Work Stress	128.29	0.000	Null hypothesis is rejected
5	Sleeping Hours and Level of Work Stress	81.432	0.000	Null hypothesis is rejected

As significant 'p' value is below 0.05, null hypothesis has been rejected. So there is a significant relationship between demographic profile and level of work stress of the Private Bus Drivers.

Thus the demographic profile factors like age, work experience, working hours, sleeping hours and nature of route are highly influencing their work stress level

### **Work Stress Management Measures**

There are various stress management strategies among the private bus drivers towards their management of work stress. Those strategies are Sports/Exercise/Walking/Swimming, Regular Vacations / outings, Chat with friends/ family members, Using mobile phone, Hearing songs, Meditation / prayer, Alcohol, Smoking, Take Deep breath and relax and Positive thinking.

**Table 3: Private Bus Drivers Opinions on Their Work Stress Management Measures** 

WORK STRESS MANAGEMENT MEASURES	SA	A	N	DA	SDA
Sports/Exercise/Walking/Swimming	48	71	97	82	22
Regular Vacations / outings	105	115	46	40	14
Alcohol	42	59	65	97	57
Chat with friends/ family members	71	136	52	30	31
Using mobile phone	55	177	35	22	31
Hearing songs	97	184	23	16	0
Meditation / prayer	31	80	113	90	6
Smoking	17	73	92	99	33
Take Deep breath and relax	73	69	128	24	26
Positive thinking	74	146	25	49	26

Major private bus drivers are controlling work stress with Regular Vacations / outings, Hearing songs, Positive thinking, Chat with friends/ family members and Using mobile phones".





# Weighted Average Rank - Respondents Opinion towards Stressors Regarding Job Design of Private Bus Drivers

S. No.	Stressors regarding Job Design	Sum	Mean	Rank
1	Time Pressure	1416	3.56	2
2	Challenging and difficult route	1262	3.94	5
3	Less break time between rides	1056	3.30	8
4	Irregular work schedule	1126	3.52	7
5	Driving For Long Hours or Distance	1400	4.38	1
6	High Temperature on work	1279	4.00	3
7	High vibration & Noise on work	1262	3.94	5
8	Tiring or painful seating position	1364	4.26	6

Regarding the Stressors regarding Job Design of Private bus drivers, the above table inferred that Private bus drivers are ranked Driving For Long Hours or Distance" as first rank; Time Pressure as Second rank; High Temperature on work as Third rank.

Also the above table expressed that Private bus drivers are ranked Less break time between rides" as the last rank (8); Irregular work schedule as Seventh rank; Tiring or painful seating position as Sixth rank regarding the Stressors regarding Job Design of Private bus drivers.

Thus majority of the Private bus drivers are feeling stressed on Driving for Long Hours or Distance, Time Pressure seating position and High Temperature on work.

#### RESULTS AND DISCUSSION

More than 60 per cent of bus drivers are unmarried. Majority (60 per cent) of the bus drivers are aged below 35 years. More than sixty per cent of drivers have 5 to 10 years of work experience. More than 70 per cent of drivers are working 50 to 70 hours per week.

Chi Square Test found that there is a significant relationship between demographic profile and level of work stress of the Private Bus Drivers. Thus the demographic profile factors like age, work experience, working hours, sleeping hours and nature of route are highly influencing their work stress level

Private bus drivers are getting out of their work stress with Regular Vacations / outings, Hearing songs, Positive thinking, Chat with friends/ family members and Using mobile phones.

Regarding the Stressors regarding Job Design of Private bus drivers, majority of the Private bus drivers are feeling stressed on Driving for Long Hours or Distance, Time Pressure seating position and High Temperature on work.

#### **CONCLUSION**

Bus drivers are the main pillars of the bus transportation service to make safe and happy journey to the passengers. Thus the bus drivers working conditions, safety and stress are significant factors to make them happy, safe and healthy. From this Research study, it has found that Majority (60 per cent) of the bus drivers are aged below 35 years. More than sixty per cent of







drivers have 5 to 10 years of work experience. More than 70 per cent of drivers are working 50 to 70 hours per week. Chi Square Test found that there is a significant relationship between demographic profile and level of work stress of the Private Bus Drivers. Thus the demographic profile factors like age, work experience, working hours, sleeping hours and nature of route are highly influencing their work stress level. Regarding the Stressors regarding Job Design of Private bus drivers, majority of the Private bus drivers are feeling stressed on Driving for Long Hours or Distance, Time pressure & High Temperature on work. Private bus drivers are getting out of their work stress with Regular Vacations / outings, Hearing songs, Positive thinking, Chat with friends/ family members and Using mobile phones. They should have proper driving hours per day, proper seating arrangements or ergonomics and better working environment for making them peaceful and happy.

#### References

- 1) European Commission (2011), Report on the implementation of the European social partners. Framework Agreement on Work-related Stress. Brussels, 24.2.2011. SEC (2011) 241 from. http://erconline.eu/wpcontent/uploads/2015/03/COM SEC20110241 EN.pdf
- 2) Chung YS, Wong JT (2011). Developing effective professional bus driver health programs: An investigation of self-rated health, Accid Anal Prev; 43 (6), 2093 103.
- 3) Tse JL, Flin R, and Mearns K. (2007), Facets of job effort in bus driver health: Deconstructing effort in the effort-reward imbalance model, J Occup Health Psychol, 12(1), 48.
- 4) Rydstedt LW, Johansson G, Evans GW. (1998), A longitudinal study of workload, health and well-being among male and female urban bus drivers. J Occup Organ Psychology; 71 (1), 35 45.
- 5) Margherita Bergomi. Et. al (2017), Work-related stress and role of personality in a sample of Italian bus drivers., Work 57, IOS Press, 433 440
- 6) Ching-Fu Chen\*, Yuan-Chun Hsu (2020), Taking a Closer Look at Bus Driver Emotional Exhaustion and Well- Being: Evidence from Taiwanese Urban Bus Drivers, Safety and Health at Work, 353 360
- 7) Nataliia Borodina.et.al (2021), "Occupational risk assessment of passenger bus drivers", Journal of Scientific Papers "Social Development and Security", Vol. 11, No. 2, 2021
- 8) Bradley, C.J.; Grossman, D.C.; Hubbard, R.A.; Ortega, A.; Curry, S.J (2016), "Integrated Interventions for Improving Total Worker Health, A Panel Report from the National Institutes of Health Pathways to Prevention Workshop: Total Worker Health Whats *Work Got to Do with It? Ann. Intern. Med.*, 165, 279-283.
- 9) Brauner, C.; Wöhrmann, A.M.; Frank, K.; Michel, A (2019), Health and work-life balance across types of work schedules: A latent class analysis, *Appl. Ergon.*, 81, 102906.
- 10) Durgamani, Suresh & Sethuraman (2022), Occupational Stress Among Private Bus-Drivers And Conductors In Thanjavur District, *International Journal of Pure and Applied Mathematics*. 119(10), 289 304.

