



RESEARCH ARTICLE

INFLUENCE OF OCCUPATIONAL STRESS AND COPING STRATEGIES ON AGE AND WORKING HOURS AMONG BUS DRIVERS

¹Kuriachan, K.A. and ²Dr. Rupa Gunaseelan

¹Research Scholar, Bharathiar School of Management and Entrepreneur Development, Bharathiar University, Coimbatore 641 046

²Professor, Bharathiar School of Management and Entrepreneur Development, Bharathiar University, Coimbatore 641 046

Received 16th April, 2018; Accepted 19th May, 2018; Published 30th June, 2018

ABSTRACT

One of the most found out issues with the employers with that of the employee is the occupational stress and it is found to be alarming as a global issue. It is seen that if occupational stress is not managed properly, it causes ill effects to the organization, employee, society and to their family. It is the responsibility of the organization to provide stress management facilities to their employees and it is equally important for the employees to adopt and use various coping strategies personally to manage stress. This study strives to explore the occupational stress and coping strategies among bus drivers as bus driving can be regarded as a classic example of high strain occupation, with high risks of physiological and psychological issues. For this purpose the researcher has identified 12 dimensions of occupational stress having 46 statements on a five point scale and 15 coping strategies adopted by bus drivers to manage stress. A sample of 128 respondents were selected randomly and subjected to structured questionnaire. The study results indicated that high proportion of the bus drivers adopted constructive coping strategy as the means to avoid and disrupt the occupational stress. This study further confirms that the prevalence of occupational stress significantly high among bus drivers. In addition, it was found that the bus drivers' occupational stress is more influenced with the age and the weekly working hours of the drivers'.

Key words: Occupational Stress, Coping strategies, age of the respondent, weekly working hours.

Copyright © 2018, Kuriachan, K.A. and Dr. Rupa Gunaseelan. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Kuriachan, K.A. and Dr. Rupa Gunaseelan. 2018. "Influence of occupational stress and coping strategies on age and working hours among bus drivers" *International Journal of Current Research in Life Sciences*, 7, (06), 2353-2357.

INTRODUCTION

Occupational Stress in one of the crucial issues that is before the organization today. Many research have been conducted and observed that certain occupations particularly involving the contact with people in need such as bus drivers, medical, nursing, teaching, police services and social work are highly stressful. It not only causes negative impact on employees but also on the organization they belong to, their family and to the society at large. Driving is one of the most intensively causing stress activities. In India, most of the small and medium mode of transport is bus oriented. Safety of travelers along with safety of other road users is of prime importance. We could see the bus drivers balancing successfully the competing demands of safety, customer focused service and company policy and regulations (Rajib Lochan Dhar 2008). It is very important that the bus drivers should have a balanced physical and psychological health as any impairment could lead to undesirable consequences.

Most of the research has found Occupational Stress as one of the major critical factor that affects the physical and psychological well being of the bus drivers. Kompier (2010) has rightly mentioned that bus drivers frequently report tension, mental overload, fatigue and sleeping problems. Bus drivers also have more frequent absences from work and of longer duration than workers in other occupations. Most found out factor for stress is the conflicting demand is the need to drive safely and reach the destination in time. Work schedules are another major source of stress and drivers are driven by time. Narrow roads and covering more villages are the peculiar problem of routes in found among the rural bus drivers. The drivers have to cope up with the routes and the conductors have to tackle more villagers. With this background the researcher attempted to address few key issues of occupational stress and the coping strategies that they adopt to make themselves free from the stress that they undergo.

Literature Review

Reddy and Ramamurthy (1991) found out that the executives in the age brackets of 41-50 years' observed higher level of stress when compared to the executives of 51-60 years' age

***Corresponding author: Kuriachan, K.A.**

Research Scholar, Bharathiar School of Management and Entrepreneur Development, Bharathiar University, Coimbatore 641 046

group. Aminabhavi and Triveni (2000) cleared that occupational stress was not influenced by age, gender and coping strategies of bank employees and found more stress among nationalized bank employees in comparison to the employees from non-nationalized banks. Virk *et al.* (2001) found that the level of stress is directly related to age and job level. Bhatia and Kumar (2005) pointed out through their study on supervisor and below supervisor level and explicated that age has a significant relationship with the level of stress irrespective of level of job. Devi, Anitha (2007) revealed that, the employees from upper age groups asserted lower life and work stress whereas, younger employees experienced more stress. Further, it was observed that the length of service positively correlated with the stress and low income increased stress level and vice-versa. Latha and Panchanatham (2007) found that work load acts as major stressors and long work hours were indirectly associated with psychological distress. Basha and Ushashree (1995) found negative relationship between perception of organizational climate and the amount of stress experienced by the employees. Srivastava and Sinha (1983) observed that middle level managers experienced higher stress and anxiety as compared to top level managers in private sector organization. Barkat and Asma (1999) perceived that female employees asserted lower amount of stress in comparison to male employees.

Urska Treven *et al.*, (2011) in their research found that, where the workers are said to be stressed are more likely to be unsuccessful in their work. Various approaches of managing stress, good work organization and good management are the effective ways of preventing stress. Viljoen and Rothmann (2005), have investigated the relationship between—occupational stress, ill health and organizational commitment. They have conducted a study that organizational stressors contributed significantly to ill health and low organizational commitment. Mishra and Dixit (1995) revealed the coping style of aliphatic doctors, it was found from the investigation that those who use effective coping are less burnout than those who use ineffective coping. Hasnain *et al.*, (2001) on his study “role stress coping strategies in different professional groups” assessed the coping strategies in three different occupational groups and found out that no significant difference obtained among the coping strategies of three groups. Aminabhavi and Kamble (2004) conducted a study on work motivation and stress coping behavior of technical personnel at a railway workshop and found that middle aged technical personnel had significantly higher stress coping behavior as compared to the higher aged technical personnel.

Objectives of the Study

The main objective of the study is to find out the coping strategies adopted by the bus drivers during different levels of their occupational stress with respect to their Age and Weekly working hours. Coping strategies are conscious, rational way for dealing with the conflicts of life and it gives considerable amount of difference in changing and balancing their occupational stress.

MATERIALS AND METHODS

Occupational Stress: Occupational Stress is been analyzed by twelve dimensions. Role Overload (6 statements), Role Ambiguity (4 statements), Role Conflict (5 statements), Unreasonable Group Political Pressure (4 statements),

Responsibility Of Persons (3 statements), Under – Participation (4 statements), Powerlessness (3 statements), Poor-Peer Relations (4 statements), Intrinsic Impoverishment (4 statements), Low Status (3 statements), Strenuous Working Condition (4 statements) and Unprofitability (2 statements) were the dimensions adopted to study occupational stress adopted from Shrivastava and Singh (1981). Totally forty six statements on a five point scale have been used to measure Occupational Stress.

Coping strategies: This has been analyzed in two dimensions – constructive coping strategy and destructive coping strategy. Constructive coping strategy takes into account 10 items from Ni He *et al.*, (2002). These items are scored on a five point scale ranging from 1 Strongly Disagree to 5 Strongly Agree. Destructive Coping strategies contain 5 items adopted from Ni He *et al.*, (2002) and are again scored on a five point scale. Occupational Stress is taken as the dependent variable and the remaining are independent variable.

Sampling: A sample of 128 bus drivers are considered for the study out of the population of 199 bus drivers available on duty at the TNSTC Bus depot at Coimbatore City.

Validity and Reliability: The first step in the measurement of validation involved the computing of co-efficient alpha to test reliability. Cronbach’s alpha is used to test the reliability of a multi item scale. The co-efficient of Cronbach’s alpha is shown in Table-1. It is found that all the values lie between 0.7 and 0.9 well within the cut of point of 0.6 as mentioned by Haide *et al.*, (1999), the construct of the questionnaire is reliable.

Table 1. Reliability Test – values of Cronbach’s Alpha

Sl. No.	Dimension	No. of Items	Cronbach’s Alpha
Dimensions of Occupational Stress			
1	Role Overload	6	0.812
2	Role Ambiguity	4	0.852
3	Role Conflict	5	0.861
4	Unreasonable Group and Political Pressure	4	0.835
5	Responsibility of Person	3	0.876
6	Under Participation	4	0.798
7	Powerlessness	3	8.220
8	Poor Peer Relations	4	0.845
9	Intrinsic Impoverishment	4	0.789
10	Low Status	3	0.801
11	Strenuous Working Condition	4	0.894
12	Unprofitability	2	0.898
Dimensions of Coping Strategies			
1	Constructive Coping (Q1-5/12-15)	9	0.811
2	Destructive Coping (Q6-11)	6	0.754

Statistical Tests Applied: Descriptive Statistics has been used to compute the mean, standard deviation, range and coefficient of variation which gives the percentage of standard deviation in terms of sample mean. Independent sample t-test is being used to identify the significance of variables.

RESULTS

Mean and Standard Deviation of Occupational Stress of Respondents: Table – 2 clearly exhibits the mean and standard deviation of the variables used to find the occupational stress. Among the twelve dimensions that measure occupational stress, it is observed that the mean value of Under participation (4.3594 : SD 0.857) ; Powerlessness (4.1380 : SD 0.884) and

Table 2. Mean and Standard Deviation of Occupational Stress of Bus Drivers

Coping Strategies	Mean	Std. Deviation	Overall Mean	Overall SD
Role Overload	2.6016	.61308	3.3081	.14843
Role Ambiguity	2.3340	.64926		
Role Conflict	2.2484	.69270		
Unreasonable Group and Political Pressure	2.2852	.83048		
Responsibility for persons	3.6823	.43644		
Under- participation	4.3594	.85732		
Powerlessness	4.1380	.88393		
Poor-Peer Relations	3.5098	.33113		
Intrinsic Impoverishment	3.7637	.37029		
Low Status	3.4349	.46685		
Strenuous Working condition	4.1133	.85910		
Unprofitability	3.2266	.64862		

Table 3. Mean and Standard Deviation of Coping Strategies of the Respondents

Coping Strategies	Mean	Std. Deviation	Overall Mean	Overall SD
Talk with my spouse relative or friend about problem (CCS)*	4.39	1.067	3.485	0.3133
Pray for guidance and strength. (CCS)	4.49	.878		
Make a plan of action and follow it. (CCS)	4.68	.468		
Exercise regularly to reduce tension. (CCS)	3.02	1.369		
Rely on my faith in god to see me though this rough time. (CCS)	4.47	1.027		
Stay away from everyone, I want to be alone. (DCS)**	1.93	1.081		
Smoke more to help me relax. (DCS)	2.13	1.624		
Shout at my spouse, family members or a professional. (DCS)	2.73	1.444		
Let your feeling out by smashing things. (DCS)	1.46	.822		
Hang out more with my fellow colleague at a bar. (DCS)	2.17	1.563		
Try to act as if nothing is bothering me. (CCS)	2.13	.797		
Listen to Music. (CCS)	4.72	.651		
Look at my family picture in my pocket. (CCS)	4.48	1.065		
Think of nice place or scenery recently visited. (CCS)	4.63	.742		
Take Deep breath and relax for 5 minutes. (CCS)	4.84	.431		

* CCS – Constructive Coping Strategy**DCS – Destructive Coping Strategy

Table 3. t-test for Coping Strategies and Age with respect to Occupational Stress

Coping Strategies	Age	N	Mean	Std. Deviation	t	p
Talk with my spouse relative or friend about problem (CCS)*	Below 40 years	45	4.36	1.090	-2.271	.787
	Above 40 years	83	4.41	1.060		
Pray for guidance and strength. (CCS)	Below 40 years	45	4.58	.499	.977	.330
	Above 40 years	83	4.45	1.027		
Make a plan of action and follow it. (CCS)	Below 40 years	45	4.64	.484	-6.16	.539
	Above 40 years	83	4.70	.462		
Exercise regularly to reduce tension. (CCS)	Below 40 years	45	2.62	1.302	-2.475	.151
	Above 40 years	83	3.23	1.364		
Rely on my faith in god to see me though this rough time. (CCS)	Below 40 years	45	4.71	.506	2.459	.151
	Above 40 years	83	4.34	1.202		
Stay away from everyone, I want to be alone. (CCS)	Below 40 years	45	2.04	1.205	.838	.404
	Above 40 years	83	1.87	1.009		
Smoke more to help me relax. (DCS)	Below 40 years	45	2.33	1.871	.959	.341
	Above 40 years	83	2.02	1.473		
Shout at my spouse, family members or a professional. (DCS)	Below 40 years	45	3.20	1.546	2.633	.010
	Above 40 years	83	2.48	1.329		
Let your feeling out by smashing things. (DCS)	Below 40 years	45	1.16	.367	-4.013	.000
	Above 40 years	83	1.63	.946		
Hang out more with my fellow colleague at a bar. (DCS)	Below 40 years	45	1.56	1.099	-3.857	.000
	Above 40 years	83	2.51	1.677		
Try to act as if nothing is bothering me. (DCS)	Below 40 years	45	2.07	.618	-.764	.446
	Above 40 years	83	2.17	.881		
Listen to Music. (CCS)	Below 40 years	45	5.00	.000	5.144	.000
	Above 40 years	83	4.57	.768		
Look at my family picture in my pocket. (CCS)	Below 40 years	45	4.91	.468	4.363	.000
	Above 40 years	83	4.25	1.218		
Think of nice place or scenery recently visited (CCS)	Below 40 years	45	4.60	.618	-.302	.763
	Above 40 years	83	4.64	.805		
Take Deep breath and relax for 5 minutes (CCS)	Below 40 years	45	4.84	.520	.149	.882
	Above 40 years	83	4.83	.377		

* CCS – Constructive Coping Strategy**DCS – Destructive Coping Strategy

Strenuous Working Condition (4.1133 : SD 0.859) is high followed by Intrinsic Impoverishment (3.7637 : SD 0.370) ; Responsibility for person (3.6823 : SD 0.436). However, it is noted that the respondents give low response to the dimensions regarding Role Conflict (2.2484 : SD 0.693); Unreasonable Group and Political Pressure (2.2852 : SD 0.830).

Mean and Standard Deviation of Coping Strategies of Respondents: The Table – 3 below depicts the mean and standard deviation of different items taken to measure coping strategies of the respondents'. Among the fifteen items that were used to measure coping strategies, almost all of the Constructive Coping Strategy (10 Items) have a high mean

Table 4. t-test for Coping Strategies and Weekly working hours with respect to Occupational Stress

Coping Strategies	Weekly Working Hours	N	Mean	Std. Deviation	t	p
Talk with my spouse relative or friend about problem (CCS)*	40 to 50 hours	52	4.52	1.038	1.139	.257
	50 to 60 Hours	76	4.30	1.083		
Pray for guidance and strength. (CCS)	40 to 50 hours	52	4.65	.590	1.908	.059
	50 to 60 Hours	76	4.38	1.019		
Make a plan of action and follow it. (CCS)	40 to 50 hours	52	4.63	.486	-8.89	.376
	50 to 60 Hours	76	4.71	.457		
Exercise regularly to reduce tension. (CCS)	40 to 50 hours	52	2.98	1.407	-2.36	.814
	50 to 60 Hours	76	3.04	1.351		
Rely on my faith in god to see me though this rough time. (CCS)	40 to 50 hours	52	4.63	.817	1.615	.109
	50 to 60 Hours	76	4.36	1.140		
Stay away from everyone, I want to be alone. (CCS)	40 to 50 hours	52	2.04	1.066	.946	.346
	50 to 60 Hours	76	1.86	1.092		
Smoke more to help me relax. (DCS)	40 to 50 hours	52	2.54	1.709	2.327	.022
	50 to 60 Hours	76	1.86	1.512		
Shout at my spouse, family members or a professional. (DCS)	40 to 50 hours	52	1.96	1.066	-5.881	.000
	50 to 60 Hours	76	3.26	1.436		
Let your feeling out by smashing things. (DCS)	40 to 50 hours	52	1.77	1.059	3.275	.002
	50 to 60 Hours	76	1.25	.520		
Hang out more with my fellow colleague at a bar. (DCS)	40 to 50 hours	52	2.06	1.335	-7.14	.477
	50 to 60 Hours	76	2.25	1.706		
Try to act as if nothing is bothering me. (DCS)	40 to 50 hours	52	2.37	.971	2.581	.012
	50 to 60 Hours	76	1.97	.610		
Listen to Music. (CCS)	40 to 50 hours	52	4.67	.785	-6.13	.542
	50 to 60 Hours	76	4.75	.545		
Look at my family picture in my pocket. (CCS)	40 to 50 hours	52	4.56	.938	.668	.506
	50 to 60 Hours	76	4.43	1.147		
Think of nice place or scenery recently visited (CCS)	40 to 50 hours	52	4.42	.997	-2.299	.025
	50 to 60 Hours	76	4.76	.458		
Take Deep breath and relax for 5 minutes (CCS)	40 to 50 hours	52	4.84	.520	-2.460	.017
	50 to 60 Hours	76	4.83	.377		

* CCS – Constructive Coping Strategy**DCS – Destructive Coping Strategy

value. It is observed that the respondents give poor response to Destructive Coping Strategy.

Coping Strategies and Age with respect to Occupational Stress

Objective 1: To Study the method of Coping Strategies adopted by bus drivers depending upon their age group.

Null hypothesis (H_0): Coping strategies of the bus drivers do not differ with respect to their age group.

Alternate Hypothesis (H_1): Coping strategies of the bus drivers significantly differ with respect to their age group. Table-3 shows the t-test between coping strategies and age of the respondents with respect to their occupational stress. It is evident to see that majority of the constructive coping strategies do not differ with respect to their age group accepting the Null Hypothesis. Except for that of Listening to music and Looking at family picture in pocket where coping strategies of bus drivers significantly differ with respect to their age group thereby rejecting the Null Hypothesis. Similarly, smashing things and hanging out with fellow colleagues at a bar are the destructive coping strategy where coping strategy of bus drivers significantly differ with respect to their age group thereby rejecting the Null Hypothesis.

Coping Strategies and Weekly working hours with respect to Occupational Stress

Objective 2: To Study the method of Coping Strategies adopted by bus drivers depending upon their weekly working hours at their work place.

Null hypothesis (H_0): Coping strategies of the bus drivers do not differ with respect to their weekly working hours.

Alternate Hypothesis (H_1): Coping strategies of the bus drivers significantly differ with respect to their working hours. Table-4 shows the t-test between coping strategies and weekly working hours of the respondents with respect to their occupational stress. It is evident to see that all of the constructive coping strategies do not differ with respect to their weekly working hours accepting the Null Hypothesis. Thus it is clear that coping strategies of the bus drivers do not differ with respect to their weekly working hours. Similarly, shouting at their spouse, family members or professional and smashing things are the destructive coping strategy where coping strategy of bus drivers significantly differ with respect to their weekly working hours thereby rejecting the Null Hypothesis.

DISCUSSION AND CONCLUSION

It is found from the research that constructive coping strategy has low mean scores and as well as been the source of coping strategy very adequately adopted by the bus drivers when they foresee an occupational stress. From the above it is also evident to note that among the twelve dimensions that measure occupational stress, it is observed that under participation, powerlessness and strenuous working condition is found to be high and there is a need to be focused by the management of the bus depot to ensure that the issues are sorted out to lessen the occupational stress. It is also good to note that the bus drivers are not influenced by their role conflict or unreasonable group and political pressure. Most of the Coping strategies adopted by the bus drivers to overcome their occupational stress are found to be constructive. It is evident to see from the research that respondents are having good knowledge about their stress and they are trying to adopt suitable coping strategies to ease the effects. But still the management can carry out some deeper insights on these coping strategies and improve their quality of their work.

REFERENCES

- Aditi N and Kumari B 2005, Impact of personality patterns and employment status on psychological stress tolerance of women in Kerala Ind.Psy.Revi 64(2):103-108.
- Aminabhavi.V.A and Kamble S.V 2004.A study on work motivation and stress coping behaviour of technical personnel at Railway work shopj.Com.Gue.Res 21(3):321-329.
- Aujla P.Harshpinder, Sandhu P and Gill.R 2004. Stress Management techniques used by working women and non working women of Ludhiana city. Indian J.Soc.Res 45(1):47-58.
- Carrère, S., Evans, G. W., Palsane, M. N., & Rivas, M. 1991. Job strain and occupational stress among urban public transit operators. *Journal of Occupational Psychology*, 64, 305-316.
- Chand P 2006 Psychological factors in the development of work stress j.Com.Guii Res 23(2):178-176.
- Duffy, C. A. and McGoldrick, A. E. 1990. Stress and the bus driver in the UK transport industry. *Work & Stress*, 4(1): 17-27.
- Evans, G. W., Johansson, G., & Rydstedt, L. 1999. Hassels on the job: A study of a job intervention with urban bus drivers. *Journal of Organizational Behavior*, 20:199-208.
- Fisher, N., & Jacoby, R. 1992. Psychiatric morbidity in bus crews following violent assault: A follow-up study. *Psychological Medicine*, 22: 685-693.
- Greiner, B. A., Krause, N., Ragland, D. R., & Fisher, J. M. Objective stress factors, accidents, and absenteeism in transit operators: A theoretical framework and empirical evidence. *Journal of Occupational Health Psychology*, 1998; 3(2): 130-146.
- Hans Seyle -The stress of Life , Mc Graw Hill 1956.
- Hasnain .N Shahnawaz M.G and Shukla.V 2001. Role stress and coping strategies in different occupational groups.
- Kompier M. A. J. Bus drivers: occupational stress and stress prevention International Labour Office Geneva Prelim page ii Copyright page ISBN 92-2
- Kompier, M. A. J. and Di Martino, V. Review of bus drivers' occupational stress and stress prevention. *Stress Medicine*, 1995; 11: 253-262.
- Krause, N., Ragland, D. R., Greiner, B. A., Syme, S. L., & Fisher, J. M. Psychosocial job factors associated with back and neck pain in public transit operators. *Scandinavian Journal of Work, Environment and Health*, 1997; 23: 179-186.
- Mishra and Dixit .S 1995 .Job stress, Coping and burn out in Medical professionals J.Com.Gui Res, 12(13):183-192.
- Rajib Lochan Dhar. 2008. Quality of work life: a study of municipal corporation bus drivers. *The Journal of International Social Research*; 1/5 fall.
- Randdep K and Ravindran a.2005 Organizational stress and coping function of cognitive style.
- Udai Pareek Book on Role stress.
- Urska Treven, Sonja Treven and Simona Sarotar Zizek, Effective approaches to managing stress of employees, Review of Management Innovation & Creativity, Volume 4, Issue 10 (2011), pp. 46-57.
- Viljoen, J.P., & Rothmann, S. (2009). Occupational stress, ill health and organizational commitment of employees at a university of technology. SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde, 5(1), Art. 730, 11 pages. DOI: 10.4102/sajip.v35i1.730.
