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FACTORS PREDICTING STRESS OF EMPLOYEES IN A PUBLIC TRANSPORT CORPORATION

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Abstract

Stress is becoming a universal and a pervasive issue in the twenty first century. Several researchers across disciplines have studied, but studies on stress of public transport corporation employees are scarce. This article intends to measure the level of stress of the transport corporation employees and study the factors that could predict stress. It is found that the employees experience moderate level of stress. Further, stress is predicted by working environment and safety and security. The results of the study is discussed and implications for both the organisation and the individual are given.

The twentieth century is witnessing one of the most serious health issues i.e stress. Stress may be defined as an experience of an individual when he or she perceives that the demands whatsoever it may be, placed on them as exceeding their ability to cope. Significantly, it is considered as a problem affecting individuals' physical and mental well-being in every employment.

Over the past few decades, researchers across disciplines like law, psychology, management, sociology, economics and women studies have an enduring preoccupation with research on stress (Aziz, 2004; Chandraiah, Agrawal, Marimuthu and Manoharan, 2003; Chang, Hancock, Johnson, Daly, Jackson, 2005; Lu, 1999; Mathews, Sparkes, Bygrave, 1996; Olofsson, Bengtsson, and Brink 2003; Stordeur, D'hoore, Vandenberghe, 2001;). Of late, it has become a well-defined area of research in its own right that includes how stress relates to its antecedents and outcomes. However, research in stress on drivers and conductors (hereafter referred to as transport employees) working in public transport corporation seemed to be very sparse. The problem of stress is particularly relevant for public transport employees due to government's increased assessment of the financial performance of the transport corporation, intense competition with the private players and the shift in the public tastes and preferences. Moreover, the public transport employees seem to face unique problems in that many of the factors that are inherent in the job such as shift work, attentional overload, safety and security etc., and few others that include handling the commuters, have been found to give rise to stress. Hence, a study on stress is imperative as it has serious consequences for both employees as well as the organizations.

The purpose of this study is to examine the various antecedents (stressors) related to stress and their impact on stress. Numerous models of stress have been proposed and tested, though the researcher in this article has primarily operated from various theoretical models that examine how stressors influence stress.

METHODOLOGY

Measures

A questionnaire was developed based on the theoretical understanding of stress. Accordingly, seven factors were identified as stress causing factors (stressors). The factors identified were a) health conditions b) working conditions c) monetary benefits d) safety and security e) timing of work f) relationship with colleagues and union and g) grievance redressal. Each factor was measured using subscales. For example, grievance redressal was measured using four items. The factors were subjected to validity and reliability tests. The questionnaire

was subjected to content validity, thus quantitatively assessing the validity of the items developed. A total of five experts scrutinized the items according to the definition generated about stress. The content validity ratio was applied to each item and those items that have scored more than 0.50 on the content validity ratio have been included in the study. These items were placed on a 5-point scale, anchored by 1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree and 5 = strongly agree and the mean of the items under each factor was used as a composite measure of the respective factors.

Accordingly, working condition is measured using five items, monetary benefits using seven items, safety and security using five items, timing of work and leave using five items, relationship with colleagues and union using six items, grievance redressal using four items, working condition using six items and stress using three items. The factors were then subjected to reliability test. The reliability coefficients (Cronbach Alpha) of all the factors are above 0.60.

Data Collection

The questionnaire was administered to 100 respondents working in the two branches of Tamilnadu State Transport Corporation in Coimbatore. The sample size was 100. The list of conductors and drivers was taken from the administrative office and the questionnaires were administered using random sampling technique.

Analysis of the Study

The collected data was analysed using SPSS –11. Stepwise multiple regression was used to study the influence of the stressors on stress. The variables like working conditions, monetary benefits, safety and security, timing of work, relationship with colleagues and union, grievance handling and working environment entered the regression model as independent variables and stress entered the model as a dependent variable.

Results of the Study

Table- 1 presents the mean and inter-correlations of the factors chosen. The mean value indicates moderate level of stressors and stress. The intercorrelations among the study variables indicate moderate correlations and there is no evidence of multi-collinearity (Green, Tull, & Albaum, 1999).

Table -2 presents the step-wise regression results. The regression analysis resulted in a two-step regression model. In the first step, working environment alone enters the model with $R^2 = 0.56$, $F = 122.14$ significant at 0.05 level. Similarly, in step 2, working environment and safety and security entered the regression model with $R^2 = 0.58$, $F = 67.40$, significant at 0.05 level. F – value indicates the fitness of the model. The entry of safety and security in the second step affects R^2 to a very small level without making any change on the â coefficient. Working environment is the strongest predictor of stress (â = 0.74), followed by safety and security (â = 0.16)

Discussion and Implication

The present study promotes understanding of stress and the factors that induce stress. It has been found that the level of stress is moderate. It may be perhaps due to the choice of the sample that comes from government owned public transport corporation. Despite government's efforts to counter competition from the private players and thus enhance the corporation's financial performance, employees still do not feel much stressed due to the coping mechanism that exists in the form of unions.

The strong prediction of stress by working environment is quite interesting. It indicates that stress is influenced by the pressure inherent in the job such as handling the public commuters and the condition of the bus. This may be true because of overcrowding during peak hours and also the attitude of commuters towards employees of the transport corporation. Safety

and security being the next strongest predictor is quite understandable. Increasingly, it has been felt that the management of the corporation, in order to stand the competition, has gradually started making the employees accountable for each commuting trip they ply. The pressure on the employees makes them feel insecure.

This study has serious implications for both the organisation and the employees. First, the corporation can think of reducing the impact of the working environment on stress by plying few more buses on routes that are crowded. Second, they can also offer training programmes for both drivers and conductors to cope up with the stress.

The employees, in particular the conductors, may be trained to manage the passengers more politely. Third, a periodic review programme may be initiated by the management of the corporation to elicit feedback about the issues that stress the employees. Fourth, in order to make the employees more accountable, the management may conduct orientation programmes about their role in the profitable performance of the corporation. Finally, the employees may become more passenger-friendly in order to facilitate the smooth conduct of the bus travel.

Limitations and Directions for Future Research

First, this study was conducted only in two branches of the transport corporation in Coimbatore city and hence the generalisability of the study is restricted only to those branches. It is imperative that the sample size may be increased from a heterogeneous group of employees in corporations across the state of Tamilnadu. Second, the composite model developed by the authors and tested using Multiple Regression established relationship between a set of antecedents and stress and not with the outcome variables. Hence, a complex model consisting of antecedents and outcome variables may be developed and tested. Third, structural equation modeling may be used to establish the multiplicity of relationships as this would account for measurement and structural errors. Demographic details were not included in this study. Future study may include these variables and the influence of such variables along with the stressors may be captured. Finally, no distinction was made between conductors and drivers and therefore the stressor – stress relationship may be studied for conductors and drivers separately.

References

1. Aziz, M (2004). Role stress among women in the Indian Information technology sector. *Women in Management Review.* 19(7): 356 – 363.
2. Chandraiah, K., Agrawal, S.C., Marimuthu, P., and Manoharan, N. (2003). Occupational Stress and Job Satisfaction Among Managers. *Indian Journal of Occupational and Environmental Medicine.* 7(2).
3. Chang, E.M., Hancock, K.M., Johnson, A., Daly, J., and Jackson, D. (2005). Role stress in nurses: Review of related factors and strategies for moving forward. *Nursing and Health Sciences.* 7: 57 – 65.
4. Green, P.E., Tull, D.S., & Albaum,G. (1999). (5th Ed.), *Research for Marketing Decisions.* India: Prentice Hall of India Private Limited.
5. Lu, L (1999). Work motivation, job stress and employees' well-being. *Journal of Applied Management Studies.* 8(1): 61-72.
6. Matthews, G., Sparkes, T.J., and Bygrave, H.M. (1996). Attentional overload, stress, and simulated driving performance. *Human Performance.* 9(1): 77-101
7. Stordeur, S, D'hoore, W, Vandenberghe, C. (2001). Leadership, organisational stress, and emotional exhaustion among hospital nursing staff. *Journal of Advanced Nursing.* 35(4): 533 – 542.
8. Olofsson, B, Bengtsson, C, and Brink, E. (2003). Absence of response: a study of nurses' experience of stress in the workplace. *Journal of Nursing Management.* 11: (351-358).

Table - 1
Mean and inter-correlations of the factors

Variables	Mean	WC	MB	SS	TW	RCU	GH	WE	ST
WC	2.47								
MB	2.73	.10							
SS	2.58	.30**	.36**						
TW	2.66	.13	.39**	.30**					
RCU	2.61	.30**	.12	.20*	.14				
GH	2.54	.18	.14	.12	.22**	.04			
WE	2.70	.17	.02	.04	.04	.10	.11		
ST	2.69	.16	.17	.19	.15	.18	.12	.75**	

** Correlation is significant at 0.01 level
* Correlation is significant at 0.05 level

Table -2
Stepwise regression results predicting stress by the stressors

Steps	Factors	β	R^2.	F
1	Working environment	.74*	0.56	122.14*
2	Working environment	.74*	0.58	67.40*
	Safety and security	.16*		