

## Chapter 26

# Preventing Occupational Stress in Railway Engine Pilots: Issues at a Glance

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### ABSTRACT

*Traffic volume and speed is going to be increased in Indian Railways successively leading to higher stress in train operations. The jobs of railway pilots come under the category of high strain jobs, necessitating a need to conduct study to unfold factors associated with occupational stress. OSI test, questionnaire of specific stressors and laboratory test battery were used as tools. Means of OSI of railway pilots was significantly higher than OSI of train operation staff. Mean of OSI of goods train pilots was higher to means to those of high speed and passenger train pilots. Study revealed positive correlation of speed perception and complex reaction time tests, and negative correlation of other constituent tests of laboratory test battery to OSI test. Highest stressor observed is role overload followed by role conflict. These findings provide evidence of higher occupational stress among railway pilots because of identified specific stressors. Significant correlation noticed between OSI and laboratory test results indicates its utility in preliminary psychological screening.*

### INTRODUCTION

Indian Railways is taken to be locomotive of national development. In addition to the socio-economic services, productivity of this organisation is also dependent on how prompt and how safely the trains are run. The 21<sup>st</sup> century is likely to throw more challenges in dealing not only with incessant and continuous increase of volume of traffic but also acceleration of speeds of trains. In fast growing economy of India, traffic volume and speed in railways is going to be increased successively with the passage of time, it is ought to create stress in staff connected with train operations. The role of train operating staff

DOI: 10.4018/978-1-5225-0920-2.ch026

is of crucial importance for organisation as well as for public safety. At present train drivers (known as railway pilots) working in Indian railways have responsibility to run trains meant for transportation of passenger as well as goods. Train drivers running train in the speed of more than 130 km/hr are designated high speed train pilots, they qualify for this job only after getting essential fitness from Psych-technical Directorate of Research Design and Standards Organisation (RDSO), Lucknow.

The term stress is derived from a Latin word “string ere” meaning to draw tight. It has been used in English language since fifteenth century with a meaning of pressure or physical strain and by late twentieth century stress was connected with psychosomatic medicine to be a cause of ill health or mental disease (Dunbar, 1947). Stress has been defined in many ways in research and professional literature. Stress, which is a general term used for pressure that people are exposed to in life (Jepson and Forrest, 2006) may be defined as the individual harmony effort that the person displays against a stimulant which has excessive psychological and physical pressure on the person (Griffin, 1990). Stress is the abnormal reaction that the organism displays against threaten environmental elements (Luthans, 1994). When a person feels insufficient in dealing with demands and challenges faced in life, she/he experiences stress. Being harmed by this situation or taking advantage odd it mainly depends on the person because stress may either be a factor threatening the organism physically or psychologically or a power which gives energy in dealing with life (Baltaş, 2002). Cox (1987) has defined occupational stress as “a person’s recognition of his inability to cope with demands to his work”. Randall and Altmaier, (1994) defined organizational stress as the interaction between working conditions and the working person in environments in which the work demand exceeds the skills of the worker.

## **BACKGROUND**

Karsek and Theorel (1990) have rated the occupations into four categories- active jobs, low strain jobs, passive jobs and high strain jobs. The jobs of railway engine pilots prima-facie come under the fourth category as they have to perform long hours of duty, and have to follow rigid procedures and are allowed little latitude for taking breaks or time off for personal needs. It becomes necessary for each organisation to identify stressors of their employee in relation to the organisational setup and categories of jobs. It is also necessary that strategies for reducing stress at both macro and micro levels are designed. Hence it is imperative for the Indian Railways to develop stress management strategies that can equip the human resource with effective coping styles. Moreover, findings of previous studies conducted at Research Design and Standards Organisation (RDSO), Lucknow presenting variations in results, tend to attract attention to make more detailed probe into the prevailing state of affairs in the job of drivers. It is also necessary to identify predictors of stress amongst drivers and its related variables and study specific stressors to their job. For developing effective stress management strategies, it is desirable to analyze the occupational stress among railway engine pilots, as they are directly related to train operations, keeping following objectives into consideration:

1. To empirically verify if there is higher level of occupational stress in the jobs of railway engine pilots in comparison to that of office clerks and train operation staff (station master, guard and gateman) in Indian Railways.
2. To compare the level of occupational stressors among railway engine pilots, office clerks and train operation staff.

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