

DATA ANALYSIS OF OCCUPATIONAL STRESS AT TAKORADI POLYTECHNIC

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ABSTRACT: *The study assessed occupational stress and its effects on job performance among members of staff at Takoradi Polytechnic. Six research questions and two hypotheses were raised to guide the study and a descriptive survey was used. The target population for the study was the members of staff of Takoradi Polytechnic comprising junior staff, senior staff, and senior members in the polytechnic. Random sampling technique was used to draw 250 members of staff for the study. Questionnaire was the main instrument used to gather the data. Descriptive statistics (tables and correlation) were used to analyze data pertaining to the research whereas inferential statistics (Pearson's chi-square) was used to analyze data pertaining to the hypotheses. The result showed that fatigue was the major cause of occupational stress among staff of the polytechnic followed by back pain, an effect of long sitting hours on uncomfortable chairs at work. There was not a significant difference existed between male and female members of staff. A key recommendation from the study was that correct stress management training program should be incorporated into the fabric of the Polytechnic administration to improve health of workers and interpersonal relationships.*

KEYWORDS: Occupational Stress, Takoradi Polytechnic

BACKGROUND OF THE STUDY

Occupational stress has been of great concern to employees and other stakeholders of organizations. Occupational stress researchers agree that stress is a serious problem in many organisations (Cooper & Carthwright, 1994, Varca, 1999, Ornelas & Kleiner 2003). The cost of occupational stress is very high in many organisations in recent times. For instance, the International Labour Organization (ILO) reports that inefficiencies arising from occupational stress may cost up to 10 % of a country's GNP (Mildly, 1996).

Occupational stress is defined as the perception of a discrepancy between environmental demands (stressors) and individual capacities to fill these demands (Topper, 2007; Vemut & Steensma, 2005; Ornelas & Kleiner, 2003; Varca, 1999). Christo and Pienaar (2006) for example, argued that the causes of occupational stress include perceived loss of job and security, sitting for long periods of time or heavy lifting, lack of safety, complexity of repetitiveness and lack of autonomy in the job. In addition, occupational stress is caused by lack of measures and equipment, work schedules such as working late or overtime and organizational stress often shows high dissatisfaction among the employees, job mobility burnout, poor work performance and less effective interpersonal relations at work (Manshor, Rodrique, & Chong, 2003). Similarly Johnson (2001) argued that interventions like identifying or determining the signs of stress, identifying the

possible causes for the signs and developing possible proposed solutions for each signs are required.

Therefore, this research tried to find out the effects of occupational stress on employees job performance and interventions that can be applied by management and employees to manage stress effectively at Takoradi Polytechnic. To acquire a deeper understanding of the variable (occupational stress) consideration was first taken on the broader topic of stress in general and then zero in on the variable within the context of Takoradi Polytechnic.

Statement of the Problem

Stress at workplace is a growing problem, with extensive costs to the individuals, organizations, and society at large. A study was conducted in Britain by the policy studies institute (1993) noted that almost one third of respondent reported significant levels of stress as a result of their work, and more than half, felt their levels of stress had increased over the last five years (Gail Kinman, 1998). While there had been a significant number of research on stress of academic staff around the world most of what is known about stress amongst university workers is derived from several studies conducted by several countries such as USA, UK, Australia, Newzealand, Brazil, Chile, Germany, Honkong, Israel, Korea, Mexico, Russia, Sweden, Japan (Abbach, 1996). The same is the case in Ghana but there was no comprehensive study conducted in Ghana. Most of the above studies have been done by western universities and under western culture. Therefore it is right time that researcher investigate this issue. Hence, this study is conducted to really out the level of occupational stress among the members of staff of Takoradi Polytechnic in Ghana.

The current turbulent environment in which some workers conduct their work requires that organizations examine their practices. Working at the tertiary level is an inherently stressful situation with long working hours, heavy workloads, difficult students and conflicting demands. The physical and psychological demands of workers at the tertiary level of education make them more vulnerable to high levels of stress. The effects of stress are evidenced as increased errors in memoranda, high medical bills, lateness to work, low productivity and increased sick leaves. Despite the extremely negative effects of occupational stress on the human body and work performance, many organizations with Takoradi Polytechnic not being an exception, has not put in place any concrete measures to address these stress –related conditions that negatively affect productivity. Again, there has not been a conscious establishment of a linkage between occupational stress and its negative effect on productivity. Lack of staff training programs contributes to stress in the polytechnic. It has become a tradition in the Polytechnic that members employed are expected to learn on the job no matter his or her background; employees may be perfectly qualified for a role but if they fail to receive a solid orientation they can start off on the wrong foot.

Considering the stressful nature of this policy, workers at the polytechnic become frustrated and their frustrations are evident in the performance of their duties. Examples include errors in writing letters, errors in writing memoranda and poor technical decision making. This in turn `affects efficient dissemination of information and productivity as a whole. In the polytechnic lectures starts at 7 am but excessive stress on the part of the lecturers, unfortunately do not permit this time to be met. In my observation, additional workloads on the lecturers have come about as a result

of the introduction of the evening school programs for matured students; this has significantly increased the workload of lecturers and other supporting staff; this however requires them to work deep into the night. This stressful work schedule prevents them from attending lectures on time. In effect this affects the productivity in the Polytechnic.

In addition, excessive stress contributes to the ill health of workers in the polytechnic. Statistics provided by the Polytechnic clinic was that approximately 35% of the working population visits the Polytechnic clinic almost every week and more than half of these patients suffer from stress related diseases; this leads to absenteeism. In view of that, pressure is laid on those left in the offices and at the work places. These in turn lead to high medical bills being incurred by the Polytechnic. This eventually affects the productivity of the institution. It is in the light of the above mentioned factors and other problems that this research seeks to bring to the fore, the implications of occupational stress on the overall performance of the institution. The problems of Takoradi Polytechnic can also be related to NIOSH Model of Job Stress.

Objectives of the Research

The purpose of this study is translated into the following objectives:

The main objective is to assess stress and how it affects work performance at Takoradi Polytechnic and the specific objectives include:

1. To identify the nature (chronic, acute and intermittent) of occupational stress experienced among employees of Takoradi Polytechnic
2. To examine the different types of stress experienced between less and more experienced employees of different levels of position at Takoradi Polytechnic
3. To investigate the relationship between levels of occupational stress between male and female employees and their levels of job performance
4. To investigate the relationship between the levels of occupational stress experienced between teaching and non-teaching staff and the levels of their job performance
5. To analyze the relationship between stress level and job performance
6. To find out the recent practices adopted by Takoradi Polytechnic staff to reduce occupational stress.

Research Method

The study adopted the descriptive cross-sectional survey method as its research strategy. As noted by Yin (1994), survey is a systematic method for gathering information from a sample of individuals for the purpose of describing the attributes of the larger population of which the individuals are members. In effect the researcher used Descriptive survey and the findings for the study were quantitative.

The study used simple random sampling which means a subset of individuals (a sample) chosen from a larger set (a population). Sample size of 250 members of staff was used by collecting the total number of staff from the Planning Unit of Takoradi Polytechnic. After that staff numbers was written on sheets of papers put them in a box, shook them and selected them randomly by using that lottery approach. With the assistance of the research assistance corresponding staff numbers was interviewed. This was because individual elements were given equal chance to be

included in the sample and also avoid each element from being chosen more than once. This prevented a bias that would negatively affect the validity of the result.

Open and closed-ended questionnaires were designed for the respondents. The questionnaires were divided into various sections to capture the critical areas spelt out in the objectives for the study. The format of the questionnaire included a likert scale type and was later administered personally and the contents explained to some staff who requested to be guided. A total of two hundred and sixty nine questionnaires were sent out and were distributed to both non-academic and academic staff of the Polytechnic.

Analysis is a research technique for making replicable and valid inferences from data to their context. The researcher searches for structures and patterned regularities in the text and makes inferences on the basis of the regularities (Krippender, 1990) the Statistical Product and Service Solutions (SPSS) used to analyze the data collected. Tables and other statistical inferences were also made from the data gathered. Responses were also expressed in percentages. Data from the completed questionnaire was checked for consistency. The items in the questionnaire were grouped based on the responses given by the respondents and coded for easy usage of the Statistical Product and Service Solutions (SPSS). Also, analysis and interpretation of the data collected from staff was made by using Statistical Product and Service Solutions (SPSS) version 21.

Research question 1 was analyzed using percentages and descriptive statistics to verify the nature of distribution on chronic, acute and intermittent stress which is normally distributed or skewed. Research question 2 was analyzed using frequencies and percentages to show the different types of stress experienced between less and more experienced employees.

Research question 3 was analyzed using chi square to determine the relationship between levels of occupational stress between male and female employees and their levels of job performance; correlation was used to determine the nature of the relationship to verify whether there is a positive or negative correlation, ie whether increase in stress leads to increase in job performance or increase in stress causes a decrease in job performance. Chi square of association was also used to verify whether there is an association between stress level and job performance.

Research Question 4 was also analyzed using spearman's correlation to determine whether there is a positive or negative relationship between the levels of occupational stress experienced between teaching and non-teaching staff and the levels of their job performance. Finally research question 5, was analyzed using correlation to determine the relationship between stress level and job performance.

FINDINGS AND DISCUSSION

The principal purpose of the study was to investigate occupational stress and its effects on job performance. The study demonstrates support for the objectives of the study and further indicates an inverse relationship between occupational stress and job performance.

The first objective of this study was to analyzed the nature of stress being experienced among members of staff at Takoradi Polytechnic. The results shows that majority 68 (21%)

of the respondents experience fatigue in the Polytechnic. This shows that fatigue may affect project success and workers quality of life and so control measures must be developed to address these stress related issues immediately. More especially the effect of work tasks on fatigue should be evaluated through objective and rigorous research. Also, the impact of fatigue on work performance should be measured and compared using activity sampling and safety metrics. Other types of fatigue such as sleepiness and loss of motivation and concentration was highlighted.

The second objective was to examine the different types of stress experienced between less and more experienced employees of different levels of position at Takoradi Polytechnic. The findings shows that 47 staff members experience stress rarely or on rare occasions; 92 staff members also experience stress occasionally; also 78 members experience stress sometimes; 11 members also experience stress fairly often whilst 22 members also experience stress very often. In addition, there is no association between stress experienced between less and more experienced employees of different levels of status at Takoradi Polytechnic. This finding implies that no matter ones status ones work role may be stressful; comparing the work of a cleaner who sweeps the polytechnic campus and the various classrooms and also the lecturer who teaches from dawn to dusk, their work are all considered to be stressful.

The third objective of the study was to investigate the relationship between levels of occupational stress between male and female employees and their levels of job performance. The finding shows that it does not matter whether you are a man or woman you can go through stress; both men and women are bound to stress up so long as they are all working. The finding also showed that there is no association between stress level and gender.

The fourth objective was to investigate the relationship between the levels of occupational stress experienced between teaching and non-teaching staff and the levels of their job performance. This when tested, it was realized that chi square calculated was less than chi square critical value 0.05, meaning both teaching and non-teaching staff are likely to go through stress.

Again another objective was to analyze the relationship between stress level and job performance. The finding here implies that where stress level is high there is a low performance and where performance is high there is low stress level. This shows that depending upon the stress level of staff members in the Polytechnic, performance becomes low when stress level is high and when stress level becomes low performance goes high and vice versa.

The last objective of this study was to find out the recent practices adopted by Takoradi Polytechnic staff to reduce occupational stress. With the introduction of different views by members, majority, (20.0%) 8.0% claimed that the best way to minimize occupational stress is through the introduction of stress management programs in the institution. which in turn will improve academic and work performance.

CONCLUSIONS

Based on the analyses of the data, the following conclusions were drawn:

An overwhelming (89.1%) of respondent were aware that job stress can affect their health and so drawing from the consequences of results, it could be concluded that members of staff of Takoradi Polytechnic mainly experience back pain and fatigue which could grow into other health implications leading to low output of those affected. In summary, the result of the study indicates that there is a weak relationship between job stress and job performance. Those workers who had high level of job stress had low job performance. All the factors contributing to job stress affected all the categories of staff of Takoradi Polytechnic.

RECOMMENDATIONS

Based on the findings above the following recommendations have been made: Performance is hindered by stress because the individual faces signals of stress which affects their productivity. From the findings Takoradi Polytechnic has youthful work force who can work to enhance productivity if stress is managed well in the system. Therefore, correct stress management training programs should be incorporated into the fabric of the Polytechnic administration to improve health of workers and intrapersonal relationships. A culture of openness and understanding, rather than of criticism is essential. An individual needs to maintain good level of personal health, senior level management commitment to employee-related issues such as paying attention to workload conflict, supervisor's recognition of outstanding output of staff and the introduction of proper stress management training programs should be perceived as significant steps which if embraced, would be identified as major contributory factors that could enhance productivity of staff and boost their output as well. The prevention and management of workplace stress requires organizational level of interventions, because it is often the organizations that create the stress. In addition, a culture of openness and understanding, rather than of criticism, is essential.

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