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EXAMINE THE CONSEQUENCE OF OCCUPATIONAL STRESS AMONG THE EMPLOYEES IN TAMIL NADU WATER SUPPLY AND DRAINAGE BOARD, NORTHERN REGION (VELLORE) IN TAMIL NADU

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Abstract
The present study made an find out the consequence of occupational stress among the employees in Tamil Nadu water supply and drainage board, Northern region (Vellore) in Tamil Nadu. The study tried to know whether there any influence of demographic variables on consequences of occupational stress among the employees in Tamil Nadu water supply and drainage board. In the present investigation a sample of 100 employees were selected randomly. Primary data were collected from the respondents using questionnaire developed by researcher. After collecting the data, they were coded using Microsoft excel. The data were analysed in Statistical Package for Social Science. Mean, Standard Deviation, t-test, One way ANOVA, regression analysis and correlation analysis were applied to test the hypotheses. The results shows that consequence of occupational stress is positively and significantly related to employees demographic variables.

Keyword: Consequence Of Occupational Stress, Physical Symptoms, Psychological Symptoms, Behavioural Symptoms, Intellectual Symptoms

Introduction

The variety of impure and toxic gland preparations produce a stereotyped syndrome, Characterized by enlargement and hyperactivity of the adrenal cortex, altrophy of the thymus gland and lymph nodes, and the appearance of gastrointestinal ulcers. Further research showed that this triad and other simultaneously occurring organ changes can also be induced by heat, cold infection, trauma, hemorrhaged, nervous irritation and many other stimuli. Some of these changes are merely sins of damage: Others are manifestations of the body's mechanism of defense against these divers agents. The entire syndrome, including its pattern of development in time, was called the General Adaptation Syndrome (GAS) The GAS is made up of three stages.

Consequence of Occupation Stress

In this phase the organism's "homeostasis" or balance is disrupted. The organism's reaction when it is suddenly exposed to diverse stimuli to which it is not adapted. Hans Selye termed as alarm reaction for the animal's initial response, because he thought that syndrome probably represented a general call to arms, the body's defensive forces. The endocrine glands become active particularly the adrenal glands (secreting corticosteroids) which supply a ready source of energy to the body. This is accompanied by a shrinkage of lymphatic structures, decrease in blood volume, and ulcers in the stomach. The alarm reaction has two phase.

Shock Phase: The initial and immediate reaction to the noxious agent various sign of injury, such as techycardia loss of muscle tone, decreased temperature and decreased blood pressure, and typical symptoms.
Counter Shock Phase: A rebound marked by the mobilization of defensive phase, during which the adrenal cortex is enlarged and secretion of the corticoid hormones is increased. Most of the acute stress diseases correspond to the two phases of the alarm reaction.

The alarm reaction, however, is evidently not the entire response. No organism can be maintained continuously in a state of alarm. If the agent is so drastic that continue exposure becomes incompatible with life, the animal dies during the alarm reaction within the first hours or days. If it can survive, this initial reaction is necessarily followed by the "State of resistance".

State of Resistance

The organism's full adoption to the stressor and the consequent improvement or disappearance of the symptoms. The manifestations of the second phase are quite difficult from in many instances, the exact opposite of those which charactering the alarm reaction. For e.g. During the alarm reaction, the cells of the adrenal cortex discharge their secretary granules into the blood stream and thus become depicted of corticoid containing lipid storage materials, in the state of resistance, on the other hand, the cortex becomes particularly rich in secretary granules. Whereas in the alarm reaction there is haemoconcentration, hypochloremia and general tissue cotbolism, during the stage of resistance there is haemodilution, hyperchoremia and anabolism, with a return toward normal body weight. Curiously, after still more exposure to the noxious agent, the acquired adaptation is lost again.

Stage of Examination

Since adaptability is finite, exhaustion inexorably follows if the stressor is sufficiently severe and prolonged. Symptoms reappear and if stress continues unaborted, death ensures. This occurs resulting in permanent damage to the system. If the agent is not removed, depletion of all energy of the organism takes place and death may ensure.

Review of literature

Singh (2012) studied job stress among university teachers in terms of occupation status and teaching experience of faculty on the basis of statistical analysis of data obtained for 100 faculty members, it was conducted that (i) Higher occupational status was enhancing job stress among teachers. (ii) Teaching experience was found to be negatively associated with job stress and (iii) The lower stress led to better physical and mental health among teachers. The findings have been discussed and implications are drawn accordingly to effectively cope with job stress. Singh and Sinha observed the superiors level of executives of a public sector work organization (N=156) respondent to a scale measuring perception of time urgently and challenge in work (PTUCW) and measures of interpersonal relationship, job person fit, organizational commitment and locus of control. Results based on correlational analyses showed that respondents high on PTUCW were low on interpersonal relationship, job person, fit, organizational commitment and high on internal control of reinforcement. By way of implication a note of caution was favoured regarding exercise of PTUCW patter of behaviour dispute its short-term positive consequences.

Sridevi (2013) attempts to discuss the social issues involved in the phenomenon of gender-inequality and its implications, along with strategies for action intervention. Research on gender differences in relation to the quality of living what women experience is examined. Sex differences in psychological health along with evidence that the quality and quantity to these differences are changing have been looked at concurrent with changes in the life style and social roles for women.

Srivastava (2014) examined the relationship between employees role stress and mental health and the moderating effect of exdopted coping strategies on the relationship. Three hundred employees of superirsory cadre from life Insurance Corporation participated in the study. The analysis indicated that employees role stress and mentall ill health positively Correlate (r=84), H was also noted that the “approach” coping group second higher (M=153.5) on the measure of role stress in Comparison to “avoidance” coping group (M=114.5) But the “Approach” groups mamfested lesser symptoms of mental ill health (M=34.77) as Compared to the “Avudance” coping group (M=57.52). The study also revealed that approach coping strategier allviate the adverse effect of high role stress on psyclwliegied well being of the focal employees.

Jeyakumaran M (2015) has made a study on occupational stress among the Managers of Cement Industries, This study was carried over by using various tools like Occupational Stress Index developed by Srivastava and Singh (1981), Type-A Type-B Personality scale by friedman and Resenman’s (1974) job satisfaction Scale developed by Radindra N. Kamungo (1982) etc., The data were collected from 400 managers of top, middle, and junior levels, from this study, he pointed out that female managers have more stress than male managers.

Eswaran, S (2015) has made a detailed study of Introspective Practices and Executive’s leadership Behariour by employing vauwin psychological tools like Emotional Competence scale (Sharma and Baradivaj, 1995), Occupational stress index (Srivastava and Singh, 1981) work values Inventory (Super, 1970) Quality of life Inventory (Glorca Noriega, 1997), he identified the variables that influence the executives leadership behaviour along with the practices of introspection. The study revealed that the executives practicing introspection have significantly lower occupational stress than the non-practicing executives.

Objectives

- To study the examine the consequence of occupational stress among the employees in Tamil Nadu water supply and drainage board, Northern Region (Vellore) in Tamil Nadu.
- To understand the various factors consequence of occupational stress on Tamil Nadu water supply and drainage board employees.
- To study the significant relationship between consequence of occupational stress and employees demographic variables.
- To find out the significant relationship between consequences - physical symptoms and employees demographic variables.
- To find out the significant relationship between consequences - psychological symptoms and employees demographic variables.

- To find out the significant relationship between consequences - behavioural symptoms and employees demographic variables.
- To find out the significant relationship between consequences - intellectual symptoms and employees demographic variables.

Hypothesis

- Employees old by age will have more consequence of occupational stress than employees young by age.
- Married employees will have more consequence of occupational stress than unmarried employees.
- Employees with less educational qualification will have more consequence of occupational stress than employees with high educational qualifications.
- Employees hailing from urban areas will have more consequence of occupational stress than employees from rural areas.
- Employees with more years of service will have less consequence of occupational stress than employees with less service.
- There is a significant relationship between Consequence of occupational stress and employees demographic variables.
- There is a significant relationship between consequences - physical symptoms and employees demographic variables.
- There is a significant relationship between consequences - psychological symptoms and employees demographic variables.
- There is a significant relationship between consequences - behavioural symptoms and employees demographic variables.
- There is a significant relationship between consequences - intellectual symptoms and employees demographic variables.

Methodology

This study was planned to be consequence of occupational stress among the employees working Tamil Nadu water supply and drainage board. It was decided to have a sample from the population of employees groups on a stratified random basis.

Methods of Data Collection

The investigator personally distributed the questionnaires to each member of the selected sample. They were requested to answer the items in the booklet as per the instructions provided at the beginning of each questionnaire. Confidentiality of response was assured. The respondents were co-operative and took three hours to fill the information in all the questionnaires. The questionnaires were collected by the investigator from the respondents. Out of the 100 employees chosen for the sample through the stratified random sampling. Among the 120 employees contacted and requested to answer our questionnaires, only 100 of them returned the duly filled in questionnaires, making it return.

Data Processing

The collected data were analysed using appropriate statistical techniques. The descriptive statistics such as mean and S.D, $SE_{M,}$ t-ratio were computed. In order to study the functional dependencies to indicate the likelihood of causal relationships between the variables, inferential statistical techniques of product moment correlation, ANOVA, step-wise regression analysis were computed.

Limitations of the Study

The vast population, limitation of the time etc forced to restrict this study a sample of 100 employees randomly selected from northern region (Vellore). Therefore the conclusion and other interpretation derived in their enquiry must viewed in the context of the sample and variables used in this study.

Results and Discussion

Table 1 ,Showing Mean, SD, SE_M and F-ratio of different age groups of Employees On Consequence of Occupational Stress

Groups	N	Mean	SD	SE_M	F-ratio	LS
25-35 years	45	89.5	13.4	1.1	2.34	0.01
36-45 years	24	92.6	10.6	1.0		
46 and above	31	92.1	11.9	1.5		

Hy: Employees old by age will have more consequence of occupational stress than employees young by age.

The Mean, SD and SE_M computed for three age groups for the scores of consequence of occupational stress are furnished in Table 1. The employees whose age is between 36-45 years (92.6) and 46 and above (92.1) seems to have more consequence of occupational stress than their counterparts of 25-35 age group (89.5). This difference between these age-level groups is confirmed by the significant F-ratio (2.34 < 0.01).

Table 2,Showing Mean, SD, SE_M and t-ratio of different marital status groups of employees on consequence of occupational stress

Groups	N	Mean	SD	SE_M	t-ratio	LS
Single	43	89.3	13.1	1.1	2.45	0.01
Married	57	92.7	11.5	0.9		

Hy : Married employees will have more consequence of occupational stress than unmarried employees.

The Mean, SD, SE_M and t-ratio computed for different marital status groups for the scores of consequence of occupational stress are furnished in Table 2. It is observed from the table that the married employees have (92.7) more consequence of occupational stress than unmarried employees (89.3). The difference between these two groups is significant as by the computed t-ratio (2.45) is significant at 0.05 level. Hence the hypothesis that married employees will have more consequence of occupational stress than unmarried employees is confirmed.

Table 3,Showing Mean, SD and SE_M of different educational groups of employees on consequence of occupational stress

Groups	N	Mean	SD	SE_M	F-ratio	LS
Diploma or below	44	89.1	15.0	1.4	2.35	0.01
Degree	38	91.8	10.2	1.1		
Professional	18	92.4	10.4	0.9		

Hy: Employees with less educational qualification will have more consequence of occupational stress than employees with high educational qualifications.

Table 3 shows the Mean, SD and SE_M for different educational groups of employees on consequence of occupational stress. It is evident from the table that employees with professional qualification (92.4) show more consequence of occupational stress, followed by degree holders (91.8), and diploma holders or qualified below that level (89.1). The obtained F-ratio (2.35) is significant at 0.05 level confirming the difference among the groups.

Table 4,Showing Mean, SD, SE_M and t-ratio of different nativity groups of employees on consequence of occupational stress

Groups	N	Mean	SD	SE_M	t-ratio	LS
Rural	57	89.7	12.8	1.0	2.10	0.05
Urban	43	92.6	11.6	0.9		

Hy : Employees hailing from urban areas will have more consequence of occupational stress than employees from rural areas.

Table shows the Mean, SD, SE_M and t-ratio of different nativity groups of employees on consequence of occupational stress. Employees hailing from urban areas (92.6) seem to have more consequence of occupational stress than their counterparts coming from rural areas (89.7). The difference between the two groups is statistically significant, as evidenced by the computed t-ratio (2.10>0.05). The hypothesis that employees hailing from urban areas will have more consequence of occupational stress than employees from rural areas is supported by this study.

Table 5,Showing Mean, SD and SE_M For Different Service Groups of Employees on Consequence of Occupational Stress

Groups	N	Mean	SD	SE_M	F-ratio	LS
Less than 5	21	88.4	13.8	1.2	5.12	0.01
6-10	35	93.6	11.6	1.4		
11-15	26	92.8	10.1	1.0		
16 and above	18	91.2	10.5	1.9		

Hy : Employees with more years of service will have less consequence of occupational stress than employees with less service.

Table shows the Mean, SD and SE_M for different service groups of employees on consequence of occupational stress. The employees with the different years of service seem to differ in their consequence of occupational stress. The F-ratio (5.12) computed is found to be statistically significant at 0.01 level. It is noted that the employees with service of 6-10 years seem to have more consequence of occupational stress (93.6) than employees with less than 5 years of service (88.4), 11-15 years of service (92.8) and 16 and above years of service (91.2). It is noted that less than 5 years of service employees have low consequence of occupational stress than others.

Table 6,Showing the Stepwise regression analysis predicting consequence of occupational stress

Sl.No	Step/Source	Cumulative R^2	ΔR^2	Step t	P
1.	Age	0.059	0.067*	4.811	0.01
2.	Educational group	0.082	0.079*	-3.492	0.01

* P < 0.01

Constant value = 32.481

The results of regression analysis such as cumulative R^2, ΔR^2, step t and P value have been given in table 6. An attempt was made to find out whether the variables employees' age and education would be possible predictors of consequence of occupational stress. The results indicate that the two variables are very significant in predicting the consequence of occupational stress. The employees' age is poised to predict consequence of occupational stress to an extent of 0.059 which is found to be statistically significant at 0.01 level. The second variable employees education jointly with employees' service, is able to predict consequence of occupational stress to a higher level of 0.082. (significant at 0.01 level).

Table 7,Showing the correlation between the consequence of occupational stress and demographic variables

Demographic variables	Consequence of occupational stress
Age	0.182**
Marital status	0.239**
Education	-0.073
Religion	0.213**
Income	-0.055
Length of service	0.265**

** Significant at 0.05 level

Consequence of occupational stress is positively and significantly related to age (0.182**), marital status (0.239**), religion (0.213**) and length of service (0.265**) of employees. Though does not show a significant relationship between income and education with consequence of occupational stress.

Table 8,Showing the Correlation Between the Consequences - Physical Symptoms and Demographic Variables

Demographic variables	Consequences - physical symptoms
Age	-0.072
Marital status	0.242**
Education	0.266**
Religion	-0.028
Income	0.262**
Length of service	0.272**

** Significant at 0.05 level

Consequences - physical symptoms is positively and significantly related to marital status (0.242**), education (0.266**), income (0.262**) and length of service (0.272**) of employees. Though does not show a significant relationship between age and religion with consequences - physical symptoms.

Table 9,Showing the correlation between the consequences - psychological symptoms and demographic variables

Demographic variables	Consequences - psychological symptoms
Age	0.272**
Marital status	-0.042
Education	-0.081
Religion	0.221**
Income	0.254**
Length of service	0.299**

** Significant at 0.05 level

Consequences - psychological symptoms is positively and significantly related to age (0.272**), religion (0.221**), income (0.254**) and length of service (0.299**) of employees. Though does not show a significant relationship between marital status and education with consequences - psychological symptoms.

Table 10,Showing the correlation between the consequences - behavioural symptoms and demographic variables

Demographic variables	Consequences - behavioural symptoms
Age	0.294**
Marital status	-0.029
Education	-0.072
Religion	0.249**
Income	0.266**
Length of service	0.242**

** Significant at 0.05 level

Consequences - behavioural symptoms is positively and significantly related to age (0.294**), religion (0.249**), income (0.266**) and length of service (0.242**) of employees. Though does not show a significant relationship between marital status and education with consequences - behavioural symptoms.

Table 11,Showing the correlation between the consequences - intellectual symptoms and demographic variables

Demographic variables	Consequences - intellectual symptoms
Age	0.229**
Marital status	-0.006
Education	-0.080
Religion	0.224**
Income	0.209**
Length of service	0.280**

** Significant at 0.05 level

Consequences - intellectual symptoms is positively and significantly related to age (0.229**), religion (0.224**), income (0.209**) and length of service (0.280**) of employees. Though does not show a significant relationship between marital status and education with consequences - intellectual symptoms.

Findings

1. 36-45 years age will have more consequence of occupational stress than employees other age.
2. Married employees will have more consequence of occupational stress than unmarried employees.
3. Employees with more educational qualification will have more consequence of occupational stress than employees with high educational qualifications.
4. Employees hailing from urban areas will have more consequence of occupational stress than employees from rural areas.
5. Employees with more years of service will have less consequence of occupational stress than employees with less service.
6. The results indicate that the age and education variables are very significant in predicting the consequence of occupational stress.
7. Consequence of occupational stress is positively and significantly related to age, marital status, religion and length of service of employees.

8. Consequences - physical symptoms is positively and significantly related to marital status, education, income and length of service of employees.
9. Consequences - psychological symptoms is positively and significantly related to age, religion, income and length of service of employees.
10. Consequences - behavioural symptoms is positively and significantly related to age, religion, income and length of service of employees.
11. Consequences - intellectual symptoms is positively and significantly related to age, religion, income and length of service of employees.

Conclusion

An employee has many obligations, both at home and work place as well. The demands of the society and modern civilization have made the life of man more complex, full of hazards of his own creations. He is living in an era of strain, frustration, conflict, tension and anxiety. Many people develop emotional or physical problems as a result of prolonged stress. The difficulties may be temporary, or long lasting and they may be caused by factors at work or out of the work place. No one is immune to stress, for it can affect people at all levels of the organisation. When it is too severe or long lasting, it can negatively affect both the individual and the employer.

The main aim of this study was to investigate the consequence of occupational stress among the employees working Tamil Nadu water supply and drainage board with reference to northern region (Vellore) in Tamil Nadu. The study was conducted among randomly selected 100 respondents. Certain psychological instrument of consequence of occupational stress was used. In addition, personal information schedule was used to collect the information regarding demographic variables. Hypothesis relating consequence of occupational stress and demographic variables are formulated and tested for their significance. From the results, certain conclusions were drawn. Few areas for future research have been suggested. Result shows that there is a positive and significant correlation between employees demographic variables and consequence of occupational stress. Also consequences - physical symptoms is positively and significantly related to marital status, education, income and length of service of employees. Further consequences - psychological symptoms is positively and significantly related to age, religion, income and length of service of employees. Also consequences - behavioural symptoms is positively and significantly related to age, religion, income and length of service of employees. Further consequences - intellectual symptoms is positively and significantly related to age, religion, income and length of service of employees.

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