Osipow’s Stress Inventory and Performance Evaluation: How do Interpersonal Strain and Social Neglect Come to Bear?

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Abstract

The triad of stress, work, and society explains multi-dimensionality which Osipow’s scale-Occupational stress inventory-Revised emphatically buttresses. The underlying effect of this tri-directional phenomenon is what has been investigated in bringing out the social aspects of stress in social neglect and interpersonal strain whilst also placing them against employees’ performance in the public work space. Methodology subscribed to for establishing relationship amongst the study variables was basically the Karl Pearson’s Product Moment Correlation Co-efficient (KPMCC) having established validity and scale reliabilities. The results showed that a negative significant relationship exists between interpersonal strain and employees’ performance, while, social neglect had an insignificant relationship with the performance levels of employees. The implication here explains the traditional stress modes as described in the work which exclude social dimensions and focuses more on the physical, mental, emotional effects of stress.

Keywords: Karl Pearson's product moment correlation co-efficient; Stress inventory; Employees' performance

Introduction

Osipow’s Occupational Stress Inventory-Revised (OSI-R) is majorly believed in the stress literature to measure stress at the workplace ranging from issues of sexual perversion, personal disclosures to health related job stress and public induced strain [1].

The performance of employees in the public service is affected by interpersonal strain in the employees’ workplace. Interpersonal strain measures the degree of disruption either withdrawal or aggressiveness in interpersonal relationships. Stress at work negatively impacts on the rest of employees’ life. Odelela [2] asserts that interpersonal strain occurs when there is a personality conflict between employees in the office, organization or role set to the extent that such employee displays negative attitude such as anxiety, aggressiveness, anger, poor commitment, and turnover which may affect the overall employee performance in the organization.

Feldman [3] emphasizes that workplace stress arising from lack of interpersonal relationship between supervisor’s superiors, management and employees affect job performance as employees may result to absenteeism and turnover as a means of distancing themselves from the organization. Salama [4] found that lack of interpersonal relationship between management and employees have resulted to frequent turnover among employees in the organization. The performance of employees in the public sector has been found to have a negative correlation with poor interpersonal relationship between managers and employees.

Due to high level of mistrust common in the workplace influence stress as an employee may not have full confidence in his coworkers in the work assigned him to do [5]. Lack of trust in the workplace is a major source of stress as employee may not feel relaxed to perform his task and this may lead to turnover. Also lack of support either from management and coworkers in the same role set trigger high level of perception of stress. Employees facing excess workload need support both from coworkers and management to influence higher performance.

Adeboye [6] asserts that office politics arising from struggling for share or ownership of scarce resources in the organization lead to stress as it may lead to physical quarrel, fight, use of native language etc. which may eventually affect job performance.

Social neglect evaluate the degree to which individual employee feels lack of support and help from other co-workers either in the same office or role set around him/her. Employees feel stressed when there is no social support from management and co-workers in the role assigned to them [7]. Social neglect occurs as a result of lack of communication, team work, interpersonal relationship and management style which affects commitment, satisfaction and retention.

Osakwe [8] found that a positive significant correlation exist between social support and job satisfaction as well as negative correlation between social support and burnout. Social support influence job satisfaction as employees feel that there is effective communication on their job demand coupled with collaborative team work to get the job done within the specific time frame.

Social neglect was found to have negative correlation with employee performance suggesting that social support functions as an adaptive coping behavior among employees in the organization [9]. In contrary, a study conducted by Arhabisarjou et al. [10] found a positive but low significant correlation between the variables under investigation, as employees who are exposed to training in a particular task may not need support from coworkers for task completion. The performance of employees is affected by social neglect due to no team work and interpersonal relationship in the organization. Despite the value attached to employees’ job and the circle of co-workers, employees still tack team work that will help them to influence performance. Social support refers to the relationships with family and friends as well as social groups. It is essential for employees to have other people they can

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Received July 19, 2017; Accepted August 30, 2017; Published September 03, 2017


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count on and discuss their work problems. Employees who experience high level of stress and job dissatisfaction blame their co-workers for it. Social neglect may take the form of lack of instrumental support (helping others directly by doing things), lack of emotional support (giving care, love, sympathy), lack of informational support (providing information that can be used for coping), and poor appraisal support (feedback about personal functioning directed at enhancing esteem) as mostly experienced in less developed climes as Nigeria.

To contextualize this study, the researchers have opted to use Abia State Public Service as focal point. Abia State is one of the states in the Eastern Region; it was cut from Imo axis on 29th August, 1991. The state has seventeen Local Government Areas. The indigenes of Abia are all Igbos. Abia people have a unique culture of hard work and entrepreneurship. Amidst this great spirit of entrepreneurship is the Abia state public service, which came into existence on the same date the state was created. The Abia state public service since 1991 when it was established has served as bedrock of the executive arm of government, with her main task concerned with the implementation of policies decided by the executive and/or the legislature. Abia state public service is charged with daily management of the operations of the government.

The Abia state public service handbook for year 2015 notes that Abia state public service is made up of twenty ministries one Bureau and four parastatals. These are the ministries of Agriculture, Information, Culture, Youths, Sports, Education, Commerce and Industry, Health, Justice, Women Affairs and Social Development, Cooperatives and Rural Development, Environment, Local Government and Chieftaincy Affairs, Works, Housing and Transport, Public Utilities, Finance and Economic Development, Lands and Survey, Urban Renewal and Petroleum [11]. The Bureau is the office of budget and planning while the parastatals are Abia State Health Management Board (HMB), Abia Health Foods, Judicial Service Commission, Abia State Agricultural Development Project (ADP), the activities of the public servants in the local government system in the seventeen local government Areas is supervised by the ministry of Local Government.

Abia state public service has a total of 10,434 staff 5,913 are junior staff on GL 01-06; 3,641 are senior staff on GL 07-14 while 880 are top management staff on GL 15-17. These public servants carryout their duties on daily basis in line with their work schedules, trying their best to have increased performance [11]. Most of the jobs done by these public servants are said to be tasking and this can cause stress. The assumed stress under the public servants work in Abia State coupled with the suggestion by Egbe [12] that more studies be done on stress related issues among employee’s in Abia State public service informed this study.

Theoretical Background

Occupational stress involves many theories to enhance effective understanding of what stress encompasses and its consequences to both individual and organizational objectives. These theories anchored mainly on two major models of stress which include:

Traditional models of stress

The traditional model of stress is an old perception of stress that emphasized that stress has a negative effect on individual staff/person perceiving it which may lead to mental, physical and emotional fatigue. New Zealand Department of labour [13] asserts that stressors lead to a perception of stress which can lead to mental, physical and emotional fatigue which can result in short term safety and long term ill-health.

This model seeks to indicate the general idea or believe strain can affect the ability to withstand with stress as the outcome may lead to fatigue which will have long-term effect [14].

This model can be viewed as bad in its time and place due to the fact that it is generally known and appreciated as stress which definitely occurs at organizations which can influence unwanted and unacceptable results [13]. The Newzealand Department of Labour [13] emphasized that the procedure employee perceive the event affects his or her physical and psychological wellbeing. Although, employees view response in the same manner in stress situations. People do not speak about positive experience about stress and its negative effects on their health.

In the Nigeria Public Service setting, every employee irrespective of workplace and position is perceived to have increase in workload, role conflicts and even working in poor environment that induces stress. They are seen to be doing different tasks in order to achieve the objective of the establishment. The scholars of traditional model of stress assert that the felt stressors influenced mental, emotional and physical imbalances which ultimately lead to short and long term health problems [15,16].

The Bucket model

Ettienne Grandjean, an ergonomist propounded this idea as picture of fatigue which he used human body as a bucket filled with water daily which emptied in the day as a result of unacceptable situation but get susceptible through rest for the next day’s task. The idea emphasized that employee is assumed to be a bucket full of input at the beginning of daily work and dried at the end of the day’s work. Though, normal processes overnight and at weekends usually replenish the bucket [17].

New Zealand Department of Labour restructured the idea to explain that human system is a reservoir that can be emptied at the day, refilled during rest/leisure. Thus this idea regards individual or employee responding in that manner in the face of stress. It recognizes unacceptable occurrences but few allowances of significant cognizant on the method of compensating and motivating employees during the day. In as much as this research work is vital, workplace stress with relation to bucket perception is the same. The bucket is often exhausted and not refreshed due to employee no time to rest. The utterance ‘rest’ is excluded in public service hand book of these public servants and it is a matter of necessity to staff and scholar in question.

Public servants are engulfed with excess workload, role conflicts and poor working environment which lead to high level of stress. Public servants often look healthy, shining and full of life in the morning but later look stress up during the day as a result of excess workload, role conflicts and conductive work environment. Nigeria work environment is noted with lack of infrastructural facilities, unequipped office and dilapidated buildings which create rooms for stress to manifest in the office. The degree of satisfaction among staff within the research context is affected by the extent to which roles are conflicting within and outside each ministerial jurisdiction coupled with poor workplace environment [18].

In a stressful situation, employee show low commitment to performance in poor work environment as commitment is a function of how conduciive the environment is for workers to give their best. Many ministries and agencies are confronted with dilapidated buildings and the available ones are not renovated. There is no maintenance culture in government nowadays, and all these triggered high level of stress in public service.
Also most ministries, departments and agencies create additional roles for themselves which often conflict with other ministries thereby affecting the level of output and job satisfaction.

Empiricism

A study of occupational stress, strain and employee turnover in selected flour mill firm in Calabar was conducted by Ukpoma [19]. The study aimed at examining the effect of interpersonal strain on employee turnover in the selected flour mills firms. The study is mainly a descriptive survey study. 15 respondents (employees) were randomly selected from two selected firms. The instrument used for data collection was the structured questionnaire. The data generated through the respondents were analysed using Pearson correlation model. The results showed that there is a positive significant relationship between interpersonal strain and employee turnover in the flour mill firms. The study concluded that interpersonal strain has a high congruence with employee turnover as intention to quit is high in organizations where there is no interpersonal relationship between management and employees. The study recommended that management should ensure interpersonal relationship to foster and improve employee performance.

Harunah [20] conducted a study on the effect of occupational stress on employee commitment and retention in textile firms in Kaduna State. The study aimed at investigating the impact of stress inducing factors on employee commitment and retention in the firm. The study adopted descriptive survey method data were collected through structured questionnaire distributed to selected respondents in the textile firm. The data gathered from the respondents were analysed using chi-square statistical technique. The results showed that a negative impact/effect exist between interpersonal strain, role ambiguity etc. and employee commitment and retention. The study concluded that a positive relationship exist between stress inducing variables and employees turnover due to the fact that stress in any form affect both the physical, mental and psychological health of the workers which variably has a corresponding effect on their commitment and retention in the organization. The study recommended that organizations management should intensify effort to influence employee commitment and retention through engaging them in programmes that will enable them cope with stress in the workplace.

Adeoye and Afolabi [21] conducted a study on the impact of administrative demand, work schedule and environmental factors on job stress among private owned universities in Nigeria. The study aimed at determining the impact of stress on employee work attitude in private universities in Nigeria. The study employed descriptive survey design. Data were collected from respondents through structured questionnaire administered on selected respondents from all the faculties in the selected private universities in south West Nigeria. The data generated were analyzed suing factor analysis model. The results showed that different forms of stress especially role insufficiency, role ambiguity, environmental factors etc. negatively affect employee attitude to work which directly affect work schedule. This is because employees are given tasks without experience and knowledge or even work team that would help ensure task completion there by reducing stress level. The study recommended that management should ensure team spirit among employees to help reduce stress and improve employee performance.

Roberts [22] conducted a study on stress coping strategies among Ghanaian Women in Managerial Positions. The objective of the study was to determine the effect occupational stressors on women in managerial positions and the strategies they adopt to cope with stress. The study adopted descriptive survey method. The instrument applied for collection of data was the interview guide. The data collected were analyzed using Chi-square technique. The findings revealed that Women in higher positions face high level of stress especially social neglect in both at home and in the office which affect the level of their performance. This makes their work boring and uninteresting because of lack of social support from subordinates. The study recommended that adequate social support should give to women in managerial position both at home and in office to improve their work performance.

Osakwe [8] conducted a study on occupational stress and job satisfaction among employee of oil companies in Warri, Delta State. The objective of the study was to ascertain the relationship between stress factors and job satisfaction among workers in oil companies. The study employed survey research design. The instrument used for collection of data was a structured questionnaire; administered to selected respondents of the oil companies. The data collected were analyzed using regression analysis. The findings indicated that stress factors such as role ambiguity, workload, role boundary, social neglect etc affect employee Job Satisfaction in oil companies in Warri, Delta State Nigeria. The study concluded that due to the nature of their work, oil workers suffer high level of neglect in the work place by their employers who strive for higher performance thereby affecting the satisfaction of the workers. The study recommended that employers should provide avenue for social interaction among employees in work place to reduce stress.

A study on the link between work-life balance practices and organizational performance was conducted by Alexandra and Henry [23]. The aim of the study was to examine the effect of work life balance on organizational performance. The study was mainly theoretical in nature as data collected were solely on reviewed literature. The results showed that quality work life balance influence organizational performance. Employee feels free, interacts and seeks adequate support from co-workers in difficult task which leads to job satisfaction. The study recommended that work life balance does not only influence performance but reduced social neglect and other stress variables to improve organizational performance.

Methodology

The total number of employees is limited comprising entire employees in Abia State Public Service. The population of staff in the twenty ministries, one Bureau and four Parastats in Abia State Public Service is ten thousand four hundred and thirty four (10,434) as at December, 2015 which is stated in schedule 1.

In sampling techniques, there are appropriate sample size determination technique which mostly depends on the confidence level, bound on the error and size of the entire employees. Samples are used to portray the entire employee as all of them could not be examined. The Study implored a combination of proportionate sampling and random sampling techniques. A random sample of this is thereafter taken. This is in line with Cochran's [24] idea that it is customary to select the first stage sampling units with the probabilities of selection of the units proportional to their size and not equal as in the case of simple random sampling. The first stage sampling units will be selected in this sample are then divided into smaller second random sampling units which were sampled again. Due to the large population of ten thousand, four hundred and thirty four (10,434) staff in Abia State Public Service, the researcher adopted Taro Yameni’s formula to determine the sample size for the study. This is stated in Equation 1.
Due to the large population of the study, the researcher employed Taro Yameni’s formula to determine the sample size for the study. This is stated below.

\[ n = \frac{N}{I + N(e)} \]  

(1)

Where

- \( n \) = Sample size to be determined
- \( N \) = Total population of the study which is 10434
- \( e \) = Margin of error or level of confidence (4%) which is judgmentally determined by the researcher
- \( I \) = Constant

Applying the total population figure of 10,434 at 4% margin of error, the sample size becomes 590. Therefore 590 respondents were randomly selected from the twenty ministries, one bureau and four Parastatals in Abia State Public Service as research respondents for the study. Considering the number of twenty ministries, one bureau and four Parastats that made up the population and sample size, the proportionate sampling technique was adopted to determine how many respondents from each ministry, Bureau and Parastatal were randomly selected for the study.

The formula for the proportionate sampling techniques used was

\[ \frac{N \times n}{N \times n + N \times (e)} \]  

(2)

Where

- \( P \) = Proportional sampling to be determined.
- \( n_p \) = Population of employees in each MDAs
- \( n \) = Total sample size already determined
- \( N_p \) = Aggregate population of employees in the entire MDAs.

Substituting the values of \( n, n_p \) and \( N \) in equation 2, the respective number of structured questionnaire to be issued to each of the units was obtained and the values are as recorded in Table 1.

Primary source of data was mainly employed. Primary data are those data sourced as firsthand information. Such data exist in their raw form as other researchers have not touched the data.

The instrument for data collection was the structured questionnaire. This is in accordance with Asika [25] that a questionnaire is a consistent instrument for collecting data beyond the physical reach of the respondents. The questionnaire was self-developed and based on Supervisor’s authentication as well as further validation by experts. The questionnaire used for data collection contains two sections - Section A was on personal characteristics of employees which comprises sex, age group, educational qualification grade level as well as working experiences. Section B of the questionnaire contained various statements that focused on each of the variable identified in the objectives of the study. The questionnaire used for data collection contains twenty-nine (29) items. The questionnaire was prepared according to the aims and hypothesis in introduction part of this study. The researcher adopted Likert five point values are; Strongly Agree=5 points, Agree=4, Undecided=3 points, Disagree=2 and Strongly Disagree=1. Multiple questions were used requiring respondents to tick from the box the answer that suit his choice. The scale on stress was developed by Osipow in 1998 and known as Workplace Stress Inventory-Revised (OSI-R) and was adopted in this study while the employee performance indices were developed by the Civil Service Employee Performance Evaluation Sheet by Illinois [26].

The researchers solicited for the assistance of the permanent Secretaries and Heads of Planning, Research and Statistics (PRS) of the Ministries and Parastatals as the Focal Point Officers (FPOs) using an Introductory Letter to conduct research in their establishment and helped in the administration and collection of the data. The research assistants were trained on how to distribute and retrieve the completed questionnaire accordingly. Five Hundred and ninety (590) duplicates of the structured instrument were distributed to randomly selected respondents through the research assistants who helped to ensure that the selected respondents got the copies of the questionnaire.

In an attempt to establish face and internal validity of the questionnaire, a draft copy was prepared and vetted by a Panel of Senior Lecturers in Business Management Department Ebonyi State University and experts in Planning, Research and Statistics in Abia State Public Service in order to determine its face and internal validity. A final copy was developed based on their inputs and corrections which were finally submitted to the Supervisor for his final approval and also the instrument was finally validated using Principal Component Analysis.

Dependability refers to the degree of viscosity of the questionnaire to measure what it hopes to measure. To determine the trustworthiness of the questionnaire, a test retest method was adopted. Few respondents were administered with the amended questionnaire to fill out through the research assistants. The same respondents were issued the questionnaire to fill after two weeks and the results...
Hypothesized Relationships and Results

**H₁:** Interpersonal strains do not have significant relationship with the employees’ performance of public servants in Abia State

**H₂:** Interpersonal strains have significant relationship with the employees’ performance of public servants in Abia State

The researchers having established the reliability of the study, the test of relationship was carried out to ascertain the level of correlation that exists between interpersonal strain and the level of employees’ performance in Abia State Public Service while making use of the Karl Pearson’s Product Moment Correlation test as shown in Table 2.

**Computation of Correlation Coefficient:**

\[
r = \frac{n \sum X_i Y_j - \left( \sum X_i \right) \left( \sum Y_j \right)}{\sqrt{n \sum X_i^2 - \left( \sum X_i \right)^2} \sqrt{n \sum Y_j^2 - \left( \sum Y_j \right)^2}}
\]

**Hypotheses formulated were tested using the Karl Pearson’s Product Moment Correlation, whilst also carrying out preliminary diagnostics on the data collated before analysis. The diagnostics shows the Cronbach’s Alpha which was the reliability for both social neglect (SCLNGL) and employees performance (EmPerf) was above the acceptable limit of 0.5 (0.768 and 0.861 respectively) meaning that all the question items used in measuring social neglect and the performance of employees were reliable. Also, the Principal Component Analysis (PCA) had same scores like other factors.**

Having established the preliminary diagnostics of the factors understudy, the test of relationship was carried out to ascertain the level of correlation that exists amongst the selected variables (SCLNGL and EmPerf) using the Karl Pearson’s Product Moment Correlation test using Table 3.

**Source:** Field Survey, 2016.

**Table 2:** Correlation result for interpersonal strains.

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**Table 2:** Correlation result for interpersonal strains.
The findings of this study affirm that interpersonal strain negatively relates to employees performance and social neglect has a positive but insignificant relationship with employee performance in Abia State Public Service. All these were found to be stress inducing variables that affect the employees general performance; in terms of their level of morale, commitment, job satisfaction, retention etc. in the public service. These stress indicators have been found to be work-related and organizational related factors due to lack of education, skills, experience and general training in order to cope with the tasks assigned which lead to employees display of negative attitude at work place. Since stress is a natural phenomenon and stress free life is not possible in any organization, therefore it cannot be completely eliminated. However, the government/management can take proactive, steps to minimize its negative effect on the physical, mental and psychological health of the employees which invariably affect the level of performance in the public sector.

Public service involves the application of both technical and administrative knowledge and skill to ensure effective smooth running of day-to-day government business. The application of technical and administrative knowledge and skill can only be possible through the proper maintenance of performance enhancement indicators such as commitment, Job satisfaction, morale, empowerment, rewards etc. Thus, there is no doubt that enduring commitment, Job satisfaction and increased efficiency cannot be enjoyed under situations that create undue stress or when public servant is experiencing stress emanating from any source.

Recommendations

Based on the findings of this study, the following recommendations are hereby suggested.

Government should create a conducive working environment for the employees in order to reduce work stress and enhance performance. This could be done by maintaining high level of interpersonal relationship and team spirit among employees in the public service to reduce the level of interpersonal strain and social neglect in the workplace. The encouragement of team work is solicited.

References


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**Table 3: Correlation result for social neglect.**

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**Table 4: Summary of hypotheses test results.**

r=0.026

The test showed a result that was positive, but insignificant (r=0.026; p>0.01). This result implies that the alternate hypothesis is rejected, while the null hypothesis is accepted (See null hypothesis-H_0 as stated above). It means that social neglect has no significant negative relationship with the performance public servants in Abia State. This relationship could also be said to be insignificant, but direct, that is, an increase in social neglect neither increases nor decreases the level of performance of public servants in Abia State.

Although this would have been one of the most interesting results of this study, because of the positive relationship it had with performance, the fact that the relationship was insignificant meant that even the positive relationship would not mean so much to the discussion. Nonetheless, factors that can be deduced for this result is that although social neglect is a form of stress, it is one that occurs outside the boundaries of an organization, and amongst external forces to the workplace [9], which could imply that an employee who faces external rejection may be forced to concentrate on his/her job and therefore may perform even better on the job due to less distractions from external forces. It must also be reemphasized that in the context of the study organization, no such relationship exists because of the insignificant result. This is also against the findings of Osakwe (2013) [8], Roberts [22] and Alexandra and Henry [23] who all found a significant relationship between social support (neglect) and other predictors of organizational performance like job satisfaction and work-life balance. The summary of results of the correlation analysis is presented in Table 4.

**Conclusion**

The findings of this study affirm that interpersonal strain negatively relates to employees performance and social neglect has a positive but insignificant relationship with employee performance in Abia State Public Service. All these were found to be stress inducing variables that affect the employees general performance; in terms of their level of morale, commitment, job satisfaction, retention etc. in the public service. These stress indicators have been found to be work-related and organizational related factors due to lack of education, skills, experience and general training in order to cope with the tasks assigned which lead to employees display of negative attitude at work place. Since stress is a natural phenomenon and stress free life is not possible in any organization, therefore it cannot be completely eliminated. However, the government/management can take proactive, steps to minimize its negative effect on the physical, mental and psychological health of the employees which invariably affect the level of performance in the public sector.


