Nigerian Journal of Psychological Research, 14, 2018

Moderating role of locus of control in relationship between job stress and job involvement

Ejike A. Okonkwo, Victor U. Egbujor, & Edwin C. Onyeneje

Department of Psychology, Enugu State University of Science and Technology, Enugu, Nigeria

ARTICLE INFO

Keywords:
Female teachers,
Job stress,
Job involvement,
Locus of control,
Moderator.

ABSTRACT

Based on the assumptions of the person-environment fit model suggesting a link between job stress and job involvement, this cross-sectional survey investigated the moderating role of locus of control in the relationship between job stress and job involvement among a sample of female secondary school teachers in Enugu State, Nigeria. One hundred (100) female secondary school teachers in Enugu State, Nigeria between the ages of 28 to 41years (M = 34.10) participated in the study. They were selected for the study using multi-stage (cluster and purposive) sampling technique. The 40-item Locus of Control Inventory, 15-item Job-related Tension Scale, and 20-item Job Involvement Scale were completed by the participants. Moderated regression analysis showed that locus of control moderated the relationship between job stress and job involvement. The finding supports the view that stress arises not from the person or environment separately, but rather by their fit or congruence with one another. There is need for policy makers in the teaching/educational sector to consider locus of control in order to reduce job stress and enhance job involvement.

Introduction

Teaching appears to be among the most stressful professions because it is a human service profession, saddled with constant contact and demands from students, and other challenging aspects of the job which may cause stress. The stress from the job may have implications for job involvement. Gender role orientation in South-eastern Nigeria saddles women with greater percentage of domestic responsibilities irrespective of their engagement in paid employment. Combination of these multiple roles may expose female teachers to stress resulting in reduced job involvement, hence the present study.

Job involvement is the degree to which a person identifies with his job, actively participates in it, and considers his or her perceived performance level important to self-worth (Blau & Boal, 1987). Mckelvey and Sekaran, (1997) defined job involvement as the merging of a person's ego identity with his or her job. It thus, concerns the degree to which employees take their identity from their job. It is also the extent to which individuals seek some expression and actualization of self in their work (Gurin, Veroff & Feld, 1960; Gilboa, Shirom, Fried, & Cooper, 2008) and the degree to which people identify psychologically with their work and the importance of work in the individual's self-image (Lodahl & Kejner, 1995). Employees with a high level of job involvement strongly identify with and care about the kind of work they do. According to Lodahl and Kejner, (1965) job involvement is the degree to which a person's work performance affects his or her self-esteem. High level of job involvement has been linked to fewer absences and lower resignation rate (Blau, 1987). A person involved in a job appears to be one for whom work is very important part of his or her life and who is affected personally by the whole job situation, the work itself, by co-workers, the organization etc. An involved employee expects his or her work to be intrinsically rewarding because he thinks work provides him the opportunity for self-expression (Kanugo 1982).

Misra and Kalro (2001) observed that job involvement is a function of the level of satisfaction of one's salient needs, be they intrinsic or extrinsic. Job involvement was higher for those whose salient needs were met as compared with those whose salient needs were not meant. It is believed that job involvement increases as a result of satisfying job experiences. The more involved a person is, the more effort he or she will exert on the job. Management style that encourages employee involvement may help to satisfy employee's desire for empowerment. Studies (e.g., Brown, 1996; Rabinowitz & Hall, 1997) concluded that job involvement and participation in decision making are positively and significantly correlated. However, employees' job involvement may be related to job stress and has been explored by studies (e.g., Singh & Nath, 1991)

Job stress is defined as the physical and emotional responses that occur when the employee's capabilities and resources cannot cope with the demands and requirements of the job (Alves, 2005; Bianchi, 2004; Lindholm, 2006; Nakasis & Ouzouni, 2008). It refers to tension, anxiety, and distress from work (Cullen, Link, Wolfe, & Frank, 1985; Triplett, Mullings, & Scarborough 1996). Studies have demonstrated the perception of job stress and its negative effects on employee's satisfaction, commitment and productivity in different contexts and situations (e.g., Michael, 2009). According to Owen (2006), stressful situations in the workplace cause job stress which leads to negative and harmful effects on both employers and employees. Job stress has unwelcome results such as absenteeism, loss of productivity and health care resources (Abualrub & Alzaru, 2008; Nakasis & Ouzouni, 2008). High job stress has also been found to be related to low job

Corresponding author
Ejike A. Okonkwo, Department of Psychology, Enugu State University of Science and Technology, Enugu, Nigeria.
Email: aejyke@yahoo.com

involvement (Singh & Nath, 1991). Job role stress was found to be the most powerful predictor of job involvement and studies indicate that either positive or negative relationship existed between job stress and job involvement (Gharib, Jamil, Ahmad, & Ghouse, 2016; Jamal, 2007). For example, Gilboa, Shirom, Fried and Cooper (2008) reported a positive correlation between job stress and job involvement while Oleyede (2006) found a negative relationship between job stress and job involvement. This relationship between job stress and job involvement could be moderated by locus of control.

The concept of locus of control was first proposed by Rotter (1954). Locus of control is the belief that individual's successes, failures and outcomes are controlled by individual's actions and behaviour (internal); or perhaps, an individual's achievements, failures and outcomes are controlled by other external forces such as chance, luck and fate (Spector, 1988). Locus of control can be internal or external locus of control, and it is an important factor for well-being (Meier, Semmer, Elfering, & Jacobshagen, 2008). Internal locus of control refers to people who believe that outcomes, successes and failures are the results of their own actions and efforts (Rotter, 1966). It refers to events and outcomes which can be influenced by people's own beliefs and actions (Ng, Sorensen, & Eby, 2006). Individuals with internal locus of control believe that they can control and manage their own lives by making decisions about the events (James & Wright, 1993). In contrast, external locus of control refers to the beliefs that chance, fate, managers, supervisors, organizations and other persons are more powerful to make decision about individual's lives and outcomes (Rotter, 1966). Indeed, people with perceived external locus of control believe that fate, chance, and luck, friends, and managers determine the outcomes which they themselves experience; so, they attribute their successes, failures and outcomes to external sources (James & Wright, 1993).

Blau (1987) found that people with internal locus of control exert greater efforts personally to control their environment than people with external locus of control. Therefore, those high on internal locus of control are more likely to take an active posture with respect to their environment, whereas those high on external locus of control may adopt a passive role (Kren, 1992). Chen and Silverthorne, (2008) reported that individuals with internal locus of control have ability to control themselves in order to cope with stressful situations and can cope with job stress easily, perceiving lower levels of job stress, and showing higher level of job performance. The potential moderating role of locus of control in the relationship between job stress and job involvement is premised on the fact that people high on internal locus of control adopt a more active role than those high on external locus of control (Lewin & Stephens, 1994) in terms of their affective perception to their job or organization, hence this present study.

Theoretical overview and hypotheses development

The person-environment fit theory recognizes the importance of both person and environment in understanding the nature and consequences of stress. For example, person constructs relevant to stress research include locus of control (Rotter, 1966) and coping styles (Meenaghan, 1983). Based on the assumptions of the person-environment fit model, studies (e.g. Hollenbeck, 1989; Chatman, 1991; Bretz & Judge, 1994; Harris & Mossholder, 1996; Kristof-Brown, 1996) indicate positive correlations between employees' work-load (stress) and job involvement. The better the individual characteristics fit the environment, the more positive behaviours and beneficial attitudes they exhibit (Holland, 1985) in terms of reduced job stress and increased job involvement. The theory has also shown that person-environment fit has significant correlations with job involvement, employee work-load (stress), and work-demand (Kristof-Brown, 2005; Chuang & Lin, 2005; Young & Hurlic, 2007). These studies suggest that person-environment fit has a positive effect on employees' work outcomes, such as decreased employee work-load (stress) and increased job involvement.

Further, the contributions of the person and environment to stress have been demonstrated in the person-environment (P-E) theory of stress (Caplan, 1983, 1987; Caplan & Harrison, 1993; French, Caplan, & Harrison, 1982; French, Rodgers, & Cobb, 1974; Harrison, 1978, 1985). To this end, stress arises not from the person or environment separately, but rather by their interaction. If the interaction results in fit or congruence, then stress is reduced leading to likely high job involvement. In contrast, if the interaction results in misfit, then it leads to heightened stress leading likely to low job involvement.

Lending further support to the person-environment model is the job demand-resources theory (Bakker & Demerouti, 2007) which attributes employee well-being to the characteristics of the work environment (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). This model posits that stress is a response to imbalance between demands of one's job and the resources he or she must deal with those demands, reduced job involvement. This postulation was is consistent with the job demand-control model (Karasek, 1979), though it considered only a limited number of job characteristics (Bakker & Demerouti, 2007; Van den Broeck, Vansteenkiste, De Witte & Lens, 2008) in comparison to the JD-R model that considers all types of job demands (job stress) and job and person resources (e.g. locus of control) in predicting work outcomes such as job involvement. Furthermore, the JD-R model's strength lies in its ability to understand two parallel processes that influence employees' well-being (Hakanen, Bakker, & Schaufeli, 2006) which include de-energizing process in which job demands exhaust an employee's mental and physical resources and could lead to job stress and eventually low job involvement. Motivational process in which resources (e.g., locus of control) promotes work engagement, resulting in job involvement.

Job stress and job involvement

An in-depth investigation of both unpublished and published research and the accompanying data spanning over 25 years revealed a negative correlation between job stress and job involvement (Gilboa, Shirom, Fried & Cooper, 2008). Similarly, a study of employees of American multinational companies in Pakistan demonstrated that strong negative relationship existed between job involvement and workplace stress (Jamal, 2007). In contrast, Oleyede (2006) found that a positive relationship existed between stress at the place of work and work involvement of the employees. Oiling (2003) found a positive relationship between job stress and job involvement in the context of Chinese workers in Hong Kong. In an earlier study, Motowidloa (1986) reported a strong positive correlation between job involvement and job stress. Numerous studies confirmed that positive and negative relationships existed between job stress and job involvement (Gharib, Jamil, Ahmad, & Ghouse, 2016; Fried, 2008; Jamal, 2007). Other studies (e.g. Enukorah, 2010) found no difference between nurses with high job stress and those with low job stress on burnout. In another study, no relationship was found between job stress and employees psychological well-being (Adejuwon & Oladeye, 2013). Based on the view that job demands exhaust an employee's mental and physical resources (Hakanen, Bakker, & Schaufeli, 2006), which could lead to job stress and eventual low job involvement, it was hypothesized in this study that job stress will negatively predict job involvement.

Locus of control and job involvement

Afolabi and Akinmade (2013) suggested that organizational management could rely on locus of control to increase interpersonal skills of their workers. Specifically, studies (e.g. Dailey, 1980); Edwards & Walters, 1980) found a positive relationship between internal locus of control and job involvement. A number of studies (e.g., Coleman, Irving & Cooper, 1999; Furnham, Brewin & O'Kelly, 1994; Kinicki & Vecchio, 1994; Luthans, Baack, & Taylor, 1987) have found significant correlations between locus of control and organizational commitment in which individuals with internal locus of control were more likely to be committed to the organization than those with external locus of control. Moreover, people with internal locus of control exert greater efforts personally to control their environment than people with external locus of control (Blau, 1987) which could make them more involved in their jobs. The present researchers hypothesized that internal locus of control will be more positively related to job involvement than external locus of control.

Locus of control and job stress

According to Rotter (1966) individuals with internal locus of control can cope better in stressful situations or events they experience in their work place. Increased internal locus of control was found to be positively related to adaptation in stressful workplaces (Parkes, 1986). Kyriacou and Sutcliffe (1979) in a study on 130 teachers of 11 schools in England found that external locus of control was positively correlated with job stress. Work locus of control has been found to be related to health outcomes like stress (Berg, Hem, Lau, Håseth, & Ekeberg, 2005) as well as well-being (Spector, 2002). It is viewed as an element to deal with work demands and provides a better well-being and performance for employees (Daniels, Beesley, Cheyne, & Wimalasiri, 2008) and its moderating role has been documented (Coleman, Irving, & Cooper, 1999). Thus, the researchers hypothesized that external locus of control will be more positively related to job stress than internal locus of control. It is also hypothesized that internal locus of control more than external locus of control will weaken the negative relationship between job stress and job involvement.

Method

Participants and procedure

A sample of 100 female teachers between the ages of 28 to 41 years (Mean = 33.42) were participants in this study. The choice of using only female teachers was in order to avoid lumping together males and females whose experiences differ because of the gender-role orientations and expectations in this part of the world. The exclusion of males, therefore, served as a control measure to avoid confounding. The researchers using multi-stage sampling technique (cluster and purposive) drew the participants from the schools in Enugu State, Nigeria after obtaining a letter of permission from the principals of the schools. Administration of the questionnaire was on the available teachers in the four schools which were in the four clusters. A total of 107 copies of the questionnaire were administered within one month to the teachers. They could go home with the copies and returned them on a later date. Of the 107 copies administered, 5 were not returned and 2 copies were discarded due to errors in completion, hence 100 (93.46%) copies that were properly completed and returned were scored and analyzed in testing the hypotheses.

Measures

Three scales were used in this study. They were: 20-item Job Involvement Scale (Lodahl & Kejner, 1965), 15-item Job Tension Scale (Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964) and 40-item Locus of Control Inventory (Craig, Franklin, & Andrew (1984).

Job Involvement Scale

Job involvement was measured using 20-item Job Involvement Scale (JIS; Lodahl & Kejner, 1965)) designed to measure the extent to which a person is attached and engrossed in his/her general employment circumstances. Sample item reads "I will stay overtime to finish a job, even if I am not paid for it". There are both direct scoring and reverse scoring items. Ratings were made using 5-point scale, ranging from 1(strongly disagree) to 5 (strongly agree). The JIS had Spearman-Brown internal reliability coefficients of .72 (females), .80 (males) and test-retest reliability of .90 (Lodahl & Kejner (1965). The present researchers obtained a Cronbach α of .89.

Job Tension Scale

Job stress was measured using 15-item Job Tension Scale (JTS; Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964)). The instrument was designed to assess the job stress a worker experiences as a result of the social and physical circumstances of the work setting. Sample item reads "Feeling that you have too heavy a work load, one that you can't possibly finish during an ordinary work day". There is only direct scoring for all the items. Ratings were made using 5-point scale, ranging from 1(Never) to 5 (Nearly all the time) with internal reliability coefficients of .78 and .39 (Oseghare, 1988). The present researchers obtained Cronbach α of .97.

Locus of control scale

Locus of control was measured using 40-item Locus of Control Inventory (Craig, Franklin & Andrew, 1984). The instrument was designed to assess internal and external locus of control of the participants. Sample item reads "Do you feel that most of the time it does not pay to try hard because things never turn out right anyway". Ratings were made using dichotomous response of Yes and No. Six-week interval test-retest reliability coefficients of .63, .66 and .71 were reported by Nowicki and Strickland (1973). The present researchers reported Cronbach α of .87.

Statistical analysis

Mean and standard deviations of the continuous variables were computed first. Pearson's correlation was used to establish the relationship between the variables in the study. Moderated regression analysis was used in testing the hypotheses.

Results

Results in table 1 indicate that the predictor variable (job stress) significantly and positively correlated with job involvement among the teachers (r = .55, p <.001). Meaning that increase or decrease in the predictor variables were found to be related to increase or decrease in the criterion variable, job involvement. Also, locus of control (r = .63, p <.001) positively related to job involvement. Meaning that, increase or decrease in this variable related to increase or decrease in the criterion variable (job involvement).

In Table 2, job stress and locus of control were entered in the first regression analysis which showed that job stress (b = 1. 31, p<.001) and locus of control (b = .86, p<.001) were both positively associated with job involvement (R^2 = .43, p<.001), hence disconfirming hypothesis 1. In the second step of the analysis, the interacting term between job stress and locus of control was entered and it explained a significant increase in variance in job involvement of teachers, ΔR^2 = .125, F (3,96) = 21.14, p<.001. The interaction was also significant (b =.84, p<.001). Locus of control significantly moderated the

relationship between job stress and job involvement, suggesting that the relationship between job stress and job involvement depends on the teachers' locus of control. The slope (Figure 1) tested for the categories of locus control, away from the mean. Hence, locus of control slope (.78) revealed a significant association between job stress and job involvement, but external locus of control was more strongly related to job stress and job involvement of teachers than internal locus of control, hereby confirming hypotheses 2 and 3.

Table 1: Descriptive Statistics and Correlations among the Study Variables (N = 100).

	Variables	*M*	*SD*	1
1	Job Involvement	44.49	5.75	-
2	Job Stress	2.78	.28	.55**
3	Locus of Control	.40	.49	.63**

Note: * = $p<.05$ (2-tailed), ** $p<.001$ (2-tailed). Internal LoC = 0 and External LoC = 1

Table 2: Moderated regression showing the moderating role of locus of control in the relationship between job stress and job involvement

Predictor	b	95% *CI*	
Job Stress	1.31**	5.87	11.08
Locus of Control	.86**	1.27	4.70
Job Stress x LoC	.84**	-5.55	-2.20
ΔR^2	.125**		
F	21.14**		

** p£ .001

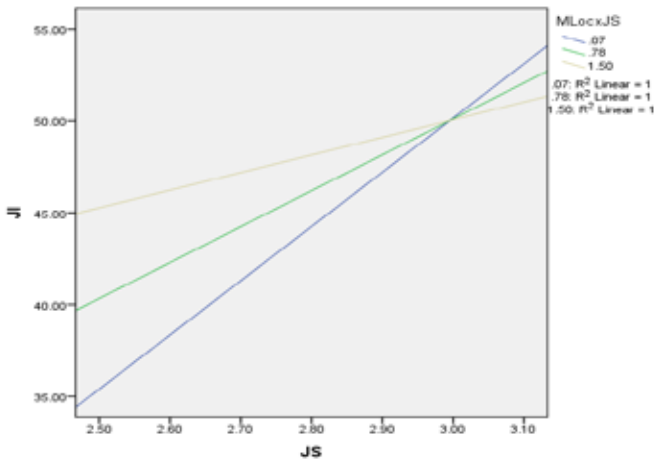

Figure 1: Interaction slope for moderating role of locus of control in the relationship between job stress and job involvement

Discussion

Contrary to the first hypothesis, results indicated a positive relationship between job stress and job involvement. This positive association suggests that the feelings of tension, discomfort, uncertainty, indecisiveness and distress that a worker experiences as a result of the social and physical circumstances of the work settings (job stress) and the extent to which a person is attached and engrossed in his/her general employment circumstances (job involvement) were found to move in the same direction. This finding is in accord with previous studies (e.g. Oleyede, 2006; Oiling, 2003; Motowidloa, 1986) which found positive relationship between job stress and job involvement.

Findings of this study show that external locus of control correlated more positively with job involvement than internal locus of control which is contrary to the second hypothesis. According to this result, the teachers' belief that people's achievements, failures and outcomes are controlled by other external forces like chance, luck and fate (external locus of control) positively associated more with the extent to which they are attached and engrossed in their general employment circumstances (job involvement) than their belief that individual's successes, failures and outcomes are controlled by individual's actions and behaviour (internal locus of control). This finding is not in support of previous studies (e.g. Dailey, 1980; Edwards & Walters, 1980) which found a positive relationship between internal locus of control and job involvement.

In support of the third hypothesis, the findings of this study showed that external locus of control was more positively related to job stress than internal locus of control. The teachers' belief that people's achievements, failures and outcomes are controlled by other external forces like chance, luck and fate (external locus of control) was positively associated more with the feelings of tension, discomfort, uncertainty, indecisiveness and distress that a worker experiences as a result of the social and physical circumstances of the work settings (job stress) than their belief that individual's successes, failures and outcomes are controlled by individual's actions and behaviour (internal locus of control). This finding is in line with studies which found positive correlation between external locus of control and job stress (Kyriacou & Sutcliffe, 1979), and individuals with internal locus of control coping better with stressful situations (Rotter, 1966; Parkes, 1986).

The findings of this study failed to support the fourth hypothesis by revealing that external locus of control positively moderated the positive relationship between job stress and job involvement. This means that the positive association between the feelings of tension, discomfort, uncertainty, indecisiveness and distress that a worker experiences as a result of the social and physical circumstances of the work settings (job stress) and the extent to which a person is attached and engrossed in his/her general employment circumstances (job involvement) among these teachers were enhanced more by the teachers' belief that people's achievements, failures and outcomes are controlled by other external forces like chance, luck and fate (external locus of control) than their belief that individual's successes,

failures and outcomes are controlled by individual's actions and behaviour (internal locus of control). This gives credence to previous studies (e.g., Kyriacou & Sutcliffe, 1979) which found external locus of control to be positively correlated with job stress, and the moderating role of locus of control (Coleman, Irving, & Cooper, 1999).

Implications of the findings of the study

The findings of this study have theoretical and practical implications. First, the positive association between job stress and job involvement among these teachers has shown that Nigerian teachers irrespective of the stress they experience are still involved in their jobs. This is an indication that in some cases, stress (eustress) could be positive. Following this finding, this study suggests that if teachers could be involved in their despite job stress, then if better working conditions which cushion of job stress are provided, they will do better. External control been positively related to job stress and job involvement and strengthening the positive relationship between the two more than internal locus of control is an indication that policy makers in the teaching sector should consider external locus of control more in order to reduce job stress and enhance job involvement.

Limitations of the Study and Suggestions for further study

The sample size in the present study was relatively small. Future studies in this area should widen the scope of such studies to cover larger areas and include more participants. The use of cross-sectional survey, self-report and moderated hierarchical multiple regressions based on the assumptions of correlation could not allow cause-effect relationship. Longitudinal studies and experimentation are likely to provide better data and more robust findings.

Conclusion

The positive relationship between job stress and job involvement among these teachers gives credence to the view that certain levels of stress may be positive. However, there is need to avoid conditions that will lead to high job stress (distress) in order to enhance job involvement among teachers. In order to reduce job stress and enhance job involvement, teachers with external locus of control should be targeted in implementations of psychosocial interventions geared towards increasing job involvement.

References

Abualrub, R., & Alzaru, I. (2008). Job stress, recognition, job performance and intention to stay at work among Jordanian hospital nurses. *Journal of Nursing Management, 16(3)*, 227-236

Adejuwon, G. A., & Oladeye, E. (2013). Self-efficacy, job stress and motivation as predictors of psychological well-being among Operation Officers of Nigeria Security and Civil Defence. *Nigerian Journal of Psychological Research, 9(1)*, 1-7

Afolabi, O.A., & Akinmade, O.A. (2013). Self-efficacy, locus of control and gender as predictors of workers' interpersonal skills. *Nigerian Journal of Psychological Research, 9(1),* 40-48

Alves, S. (2005). A study of occupational stress, scope of practice, and collaboration in nurse anesthetists practicing in anesthesia care team settings. *AANA Journal, 73(6)*, 443-52.

Bakker, A.B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology, 22*, 309–328

Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99*(2), 274-284.

Berg, A. M., Hem, E., Lau, B., Håseth, K., & Ekeberg, O. (2005). Stress in the Norwegian police service. *Occupational Medicine, 55(2)*, 113-20

Bianchi, E. (2004). Stress and coping among cardiovascular nurses: a survey in Brazil. *Issues in Mental Health Nursing, 25(7)*, 737-745.

Blau, G. J. (1987). Locus of control as a potential moderator of the turnover process. *Journal of Occupational Psychology*, *60*, 21–29.

Blau, G.J. & Boal, K.B. (1987). Conceptualizing how job involvement and organizational commitment affect turnover and absenteeism. *Academy of Management Review, 12(2),* 288-300.

Bretz, R.D., & Judge, T.A. (1994) Person-organization fit and the theory of work adjustment: implications for satisfaction, tenure, and career success. *Journal of Vocational Behavior, 44*, 32-54.

Brown, S. P. (1996). A meta-analysis and review of organizational research on job involvement. *Psychological Bulletin, 120(2)*, 235-255

Caplan, R. D. (1983). Person-environment fit: Past, present, and future. In C. L. Cooper (Ed.), *Stress research* (pp. 35-78). New York: Wiley

Caplan, R. D. (1987). Person-environment fit theory and organizations: Commensurate dimensions, time perspectives, and mechanisms. *Journal of Vocational Behavior, 31*, 248-267.

Caplan, R. D., & Harrison, R. V. (1993). Person-environment fit theory: Some history, recent developments, and future directions. *Journal of Social Issues, 49*, 253-275.

Chatman, J. A. (1991). Matching people and organizations: Selection and socialization in public accounting firms. *Administrative Science Quarterly, 36*(3), 459-48

Chen, J. & Silverthrone, C. (2008). The impact of locus of control on job stress, job performance and job satisfaction in Taiwan. *Leadership and Organization Development Journal*, 29(7), 572-582.

Chuang, A. C., & Lin, H. Y. (2005). An investigation of the effect of person-environment fit on work attitudes and behaviors. *Taiwan Academy of Management Journal, 5(1)*, 123-148.

Coleman, D. F., Irving, G. P., & Cooper, C. L. (1999). Another look at the locus of control organizational commitment relationship: It depends on the form of commitment. *Journal of Organizational Behavior, 20*(6), 995–1002.

Craig, A. R., Franklin, J.A. & Andrews, G. (1984). A scale to measure locus of control of behaviour. *British Journal of Medical Psychology, 57*,173-180.

Cullen, F. T., Link, B. G., Wolfe, N. T., & Frank, J. (1985). The social dimensions of correctional officer stress. *Justice Quarterly, 2,* 505–533.

Daniels, K., Beesley, N., Cheyne, A., & Wimalasiri, V. (2008). Coping processes linking the demands-control-support model, affect and risky decisions at work. *Human Relations, 61(6*), 845-874.

Dailey, R. (1980). Relationship between locus of control, task characteristics, and work attitudes. *Psychological reports, 47*(3), 855–861.

Edwards, J.E. & Walters, L.K. (1980). Relationship of Academic Job Involvement to biographical data, personal characteristics, and academic performance. *Educational and Psychological Measurement, 40(2)*, 547-551

Enukorah, F.C. (2010). Role of stress and age on psychological burnout among nurses.*Nigerian Journal of Psychological Research, 6*, 75-82

French, J. R. P., Jr., Rodgers, W. L., & Cobb, S. (1974). Adjustment as person-environment fit. In G. Coelho, D. Hamburg, & J. Adams (Eds.), *Coping and adaptation* (pp. 316-333). New York: Basic Books.

French, J. R. P., Jr., Caplan, R. D., & Harrison, R. V. (1982). The mechanisms of job stress and strain. London: Wiley.

Fried, Y., Shirom, A., Gilboa, S. & Cooper, C.L. (2008). The mediating effects of job satisfaction and propensity to leave on role stress-job performance relationships: Combining meta-analysis and structural equation modeling. *International Journal of Stress Management*, *15(4)*, 305-328.

Furnham, A., Brewin, C. R. & O'Kelly, H. (1994). Cognitive style and attitudes to work. *Human Relations*, *47(12*), 1509–1521.

Gharib, M., Jamil, S.A., Ahmad, M. & Ghouse, S.M. (2016). The Impact of job stress on job performance: A case study of academic staff at Dhofar University. *International Journal of Economic Research, 13(1)*, 21-33.

Gilboa, S., Shirom, A., Fried, Y. & Cooper, C.L. (2008). **A meta-analysis of work demand stressors and job performance: examining main and moderating effects.** *Personnel Psychology, 61(2)*, 227-271.

Gurin, G., Veroff, J, & Feld, S. (1960). *Americans view their mental health*. New York: Basic Books.

Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43*(6), 495-513.

Harris, S. G, & Mossholder, K.W. (1996) The affective implications of perceived congruence with culture dimensions during organizational transformation. *Journal of Management 22,*527-547.

Harrison, R. V. (1978). Person-environment fit and job stress. In C. L. Cooper and R. Payne (Eds.), *Stress at work* (pp. 175-205). New York: Wiley.

Harrison, R. V. (1985). The person-environment fit model and the study of job stress. In T. A. Beehr and R. S. Bhagat (Eds.), *Human stress and cognition in organizations* (pp. 23-55). New York: Wiley.

Holland, J. L. (1985). *Making vocational choices: A theory of vocational personalities and work environments.* Princeton, NJ: Prentice Hall Inc.

Hollenbeck, J. R. (1989) Control theory and the perception of work environments: The effects of focus of attention on affective and behavioral reactions to work. *Organizational Behavior and Human Decision Process, 43*, 406-430.

Jamal, M. (2007). Job stress and job performance controversy revisited: An empirical examination in two countries. *International Journal of Stress Management, 14*(2), 175-187

James, A., & Wright, P. (1993). Perceived locus of control: occupational stress in the ambulance service. *Journal of managerial Psychology, 8(5)*, 3-8

Kahn, R. L., Wolfe, D.M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress: Studies in role conflict and ambiguity,* Wiley, New York.

Kanungo, R.N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology, 67(3*), 341-349.

Karasek, R.A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly, 24*, 285-308.

Kinicki, A. J., & Vecchio, R.P. (1994). Influences on the quality of supervisor-subordinate relations: the role of time-pressure, organizational commitment, and locus of control. *Journal of Organizational Behavior, 15*(1), 75–82.

Kren, L. (1992). The moderating effects of locus of control on performance incentives and participation. *Human Relations, 45(9)*, 991-1003

Kristof-Brown, A. L. (1996) Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology, 49*, 1-49.

Kyriacou, C., & Sutcliffe, J. (1979). Teacher stress and satisfaction. *Educational Research, 21*, 89-96.

Lewin, A. Y., & Stephens, C. U. (1994). CEO attitudes as determinants of organization design: An integrated model. *Organization Studies*, *15*(2), 183–212.

Lindholm, M. (2006). Working conditions, psychosocial resources and work stress in nurses and physicians in chief managers' positions. *Journal of Nursing Management, 14(4)*, 300-309.

Lodahl, T. M., & Kejner, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology, 49(1),* 24–33.

Luthans F., Baack D. & Taylor L. (1987). Organizational commitment: analysis of antecedents. *Human Relations, 40(4)*, 219-235.

McKelvey, B. & Sekaran, U. (1977) Towards a career-based theory of job involvement: A study of scientists and engineers. *Administrative Science Quarterly, 22*, 281–305.

Meier, L., Semmer, N., Elfering, A., & Jacobshagen, N. (2008). The double meaning of control: Three-way interactions between internal resources, job control, and stressors at work. *Journal of Occupational Health Psychology, 13(3)*, 244-258.

Meenaghan, J. A. (1983).Commercial sponsorship. *European Journal of Marketing, 17(7)*, 1-73.

Michael, O. (2009). Job stress and organizational commitment among mentoring coordinators. *International Journal of Educational Management, 23(3),* 266-288

Mishra, P.C. (1986). Strenuous working conditions stressors as moderator variables of job satisfaction – job involvement relationship. *Indian Psychological Review, 31*, 4-9.

Misra, S., & Kalro, A., (1981) Job involvement of intrinsically and extrinsically motivated Indian managers: To each according to his need. *Human Relations, 34*, 419-26.

Motowidloa, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational Stress: Its causes and consequences for job performance. *Journal of Applied Psychology, 71*(4), 618-629.

Nakasis, K., & Ouzouni, C. (2008). Factors influencing stress and job satisfaction of nurses working in psychiatric units. *Health Science, 2(4)*, 183-195.

Nowicki, S., & Strickland, B. R. (1973). A locus of control scale for children. *Journal of Consulting and Clinical Psychology, 40*, 148–154.

Ng, T. W. H., Sorensen, K. L., & Eby, L. T. (2006). Locus of control at work: A meta-analysis. *Journal of Organizational Behavior, 27*, 1057–1087.

Oiling, S. (2003). Job stress and job performance among employees in Hong Kong: The role of Chinese work values and organizational commitment. *International Journal of Psychology, 38*(6), 337-347.

Oleyede, D. O. (2006). Impact of work-induced stress on perceived workers' productivity in banking industry in Lagos state. *IfePsychologia: An International Journal, 14* (1), 15-25.

Oseghare, C.K. (1988). *An evaluation study of McLean's stressors checklist.* M.Sc. thesis. Department of Psychology, University of Lagos.

Owen, S. S. (2006). Occupational stress among correctional supervisors. *The Prison Journal, 86(2)*, 164-181

Parkes, K.R. (1986). Occupational stress among student nurses. *Journal of Applied Psychology, 67***,** 784-96.

Rabinowitz, S. & Hall, D.P. (1977). Organizational research on job involvement. *Psychological Bulletin, 84(2*), 265-288.

Rotter, J. (1954) Social learning and clinical psychology. Englewood Cliffs, NJ: Prentice Hall.

Rotter, J. B. (1966) externalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*, 1-27.

Rotter, J.B. (1966). Generalized expectancies for internal and externa control of reinforcement. *Psychological Monographs*, *80*, 1-28.

Singh A.P., & Nath K. (1991). Effects of organizational climate, role stress and locus of control on job involvement of banking personnel. *Indian Journal of Industrial Relations, 27(2)*, 63-76.

Spector, P.E. & Fox, S. (2002). An emotion-centered model of voluntary work behavior: Some parallels between counterproductive work behavior and organizational citizenship behavior. *Human Resource Management Review*, *12*(2), 269–292.

Spector, Paul E. (1988). Development of the work locus of control scale. *Journal of Occupational Psychology*, 61, 335-340.

Triplett, R., Mullings, J., & Scarborough, K. (1996). Work-related stress and coping among correctional officers: Implications from organizational literature. *Journal of Criminal Justice*, *24*, 291-308.

Van den Broecka, A., Vansteenkisteb, M., De Wittea H., & Lens W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work and Stress, 22(3*), 277-294.

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management, 14*, 121–141.

Young, A. M., & Hurlic, D. (2007). Gender enactment at work: The importance of gender and gender-related behavior to person-organizational fit and career decisions. *Journal of Managerial Psychology 22(2)*, 168–187.