



Determinants of Burnout among Academic Staff of Public Universities in Southwest, Nigeria.

OLUGBENGA SOLOMON AJAYI, RAZAQ OLUGBENGA AZEEZ
OLUKAYODE PHILIP OLAGUNJU
Olabisi Onabanjo University, Ago-Iwoye, Nigeria

Abstract. This study investigated determinants of burnout among academic staff of public universities in Southwest, Nigeria. Eight hundred and twenty-seven (827) academic staff were randomly selected from public universities in Southwest Nigeria. Biographical Data Form (BDF), Maslach Burnout Inventory-Human Services Survey (MBI-HSS; $\alpha = 0.90$), Job Content Questionnaire (JCQ; $\alpha = 0.79$), Work Environment Questionnaire (WEQ; $\alpha = 0.72$) were used for data collection. Multiple Regression Analysis technique was used for data analysis. Findings showed that the three organizational variables predictor (job demand, job decision latitude and work environment) compositely and independently predicted the burnout. Findings also showed that job decision latitude was the main contributor to the prediction of burnout of academic staff of public universities. The study concluded that university academic staff members are not immune to burnout and other-work related challenges affecting workers generally. The implications of the findings for stakeholders interested in effective functioning and general wellbeing of workers in the workplace – employees, employers, policy makers, and government - were discussed.

Keywords: Job Demand, Job Decision Latitude, Work Environment, Burnout, Academic staff

1. Background to the Study

Increasing daily life pressure and the attendant socioeconomic challenges faced by workforce have led to mental health issues in the workplace, particularly in modern societies. One of the widely discussed mental health problems is burnout. Burnout is a serious mental health issue among academic staff in universities. It could lead to serious illnesses, such as insomnia, cancer, ulcers, and abdominal pains among others all of which are capable of terminating lives. Burnout negatively affects day-to-day human activities due to symptoms like

tiredness, frustration, and speech malfunction. Every University community has students, personnel, and residents with varying demographic characteristics in terms of academic background, nativity, religiosity, and cultural orientation among others. Thus, people are bound to respond to workplace issues differently as workers in the University are also expected to multitask.

This foregoing engagement in the University system could make burnout among the employees almost inevitable. Consequently, employees, workers, and even managers, in various industrial and other human sectors worldwide are prone to work-related fatigue, exhaustion, stress, which are profound signs of burnout. Burnout results from continued exposure to high job demands that are not matched with needed resources to aid performance (Hu *et al.*, 2020). Burnout has been seen as work-related mental-health impairment which often relates to anxiety and depression. Burnout is not only personally distressing but manifest in mental health issues. Some physical outcomes of burnout include absenteeism, social withdrawal, lowered morale, poor emotional regulation, reduced efficiency, and performance. In the universities, some lecturers play the dual roles of guardians and counsellors when they are made Director of students' affairs, Heads of Departments, Deans of Faculties among others, all these are combined with the already overloaded teaching engagement. At the same time, they are to meet up with research publications to earn their promotion as and when due. It is obvious that university lecturers can easily be overwhelmed and exposed to burnout. All over the world, the issue of burnout has become a serious concern for management at different levels because of its effects on workers and the organisation. For the employee, it reduces performance, increases ill health and lack of stability on the job.

Burnout can be classified as the result of long-term chronic stress, which is characterised by emotional exhaustion, mental fatigue, negative perceptions of others, depersonalization, and decreased personal accomplishment (Gyaki, 2014). Maslach and Leiter (2016) in Barlow (2020) identified three dimensions of burnout to include (i) the manifestation of an increased and continuous expression of emotional stress or fatigue, (ii) development of negative and pessimistic attitudes towards other people due to stress and (iii) having poor personal self-evaluation feelings of lack of accomplishment. According to Hu *et al.* (2020), there are three categories of determinants of burnouts among people generally. These are individual or personal, interpersonal, and organisational determinants.

Personal factors which could lead to burnout include individual traits and characteristics. Manifestation of burnout among teachers could lead to other health and antisocial problems such as anxiety, depression, drug abuse and psychological related challenges. School settings can also contribute to incidence of burnout among teachers due to unfriendly rules and regulations, too many students' population per teacher, lack of adequate resources and motivation. Burnout is generally associated with workplace health problem resulting from an employee's view of lack of stability between demands and the needed resources for a long time. Workers experiencing burnout are easily detached from their jobs and often loss interest in their primary responsibilities (Bilehsavar *et al.*, 2017). They can also be identified through their introverted disposition at work and lack of interest in most of the activities they engage in. Workers in this category are burned out both socially and psychologically (Butao *et al.*, 2021).

Burnout and work stress have been attributed to high job demands at work and that of family life which is also known as new way of life for most people in the 21st century (Tran, 2018). This concept is enshrined in the popular job demand control and support model (JDCS model) by Karasek, (1998). The assumption behind the job strain model is that burnout results from a combination of low social, extreme job demands, low decisional latitude (Bakker, 2017). Again, the 1979 version of the theory explains that job with high control is expected to be free of stress even when there are presence high demands. This may imply that stressful jobs are those with little or no control and high demand. Tasks that are needed to be performed by employees with a particular effort at workplace are referred to as job demand. It is more of a psychological construct than being physical. Elements of job demand include stressors arising from intrapersonal conflict

which could have been as a result work pressure and lack of job security. Another important component of job demands is employee's workload (Bakker, & Demerouti, 2017).

Generally, job demand can be defined as those efforts that must put into a particular work for maximum performance. Such efforts could be cognitive, emotional, or physical in nature such as reasoning or thinking, interpersonal relationship and deliberate physical force in making things done which are evident in every available job (Bakker, & Demerouti, 2018). It is worthy of note that job demand should not be considered as a negative construct in its entirety. But it may become a source of stress for workers to meet up with expected tasks associated with the job. This may also lead to several ill health conditions such as depression, obsession, and burnout. This could be the basis for establishing relationship among job demands, workloads and burnout by Bakker *et al.* (2014), Bakker (2017) and Demerouti *et al.* (2019). In the same vein, Bakker, *et al.* (2020) related job demands to stressful circumstances. A lengthy exposure of employees to high job demands may lead to psychological detachment from their work and chronic exhaustion (Bakker & Demerouti, 2017).

Job control is a workplace concept that is also related to psychological demand. It explains the extent at which a worker can influence the work environment. It is the capacity to bring a lot of rewards and benefits to workers and the organisation at large. This can only be achieved with the deployment of the needed skills (Bakker, & Demerouti, 2017). Some of the ways by which job control takes place is by observing the required short breaks and holidays such as annual leave (Nguyen, 2010; Llorens *et al.*, 2016). In some cases, job control is also called job decision latitude which describes the level at which workers make decision in respect of their jobs in terms of utilization of personal skills at work and ability to employing individual initiative to promote organisational performance (Bakker, & Demerouti, 2018). Accordingly, job demand and job control (DC) Model postulates that two work characteristics, that is, job demands, and job control determine the general wellbeing of workers and possible job strain (Karasek, 1989). Job demands are stressors that are psychological in nature, job control also known as decision latitude deals with authority of an individual worker in workplace and how the expected tasks are performed. This also relates to the interactions between work engagement and family life responsibilities (Bakker *et al.*, 2019).

Another important variable of interest that has been perceived to contribute to incidence of burnout among workers is work environment. This is an all-encompassing construct that includes intra and interpersonal relationship among the employees vis-à-vis the working atmosphere of the organisation which influences the behaviours of workers either inwardly or outwardly (Salunke, 2015). In the view of Raziq, & Maulabakhsh, (2015), work environment is a determinant of knowledge and information sharing which is good for the general wellness of the organisation. It also facilitates optimal performance of employees and the entire institution. In other words, a conducive working environment is beneficial to both the workers and the organisation. The workers can easily find fulfillment on the job as the organisational goals and objectives are easily achieved. Work environment is classified into distinct but intertwined three forms - These are physical, psychological, and social work environment (George *et al.*, 2017). Salunke (2015) posited that supportive work environment aids human resources to effectively perform assigned duties, manage available resources and utilise their knowledge, skills, and competences to provide quality services.

Opperman (2002) in George *et al.* (2017) revealed that work environment is divided into subunits, that is, technical, human, and organisational environments. The technical environment encompasses working instruments and equipment used in executing most of the activities carried out in the workplace. The skilled, semi-skilled and unskilled professionals that work together as a team and interact together to the managerial level is regarded as a human resources environment. Part of the responsibilities of human environment is to formulate policies that would enable other work environment works. The third component, also known as organisational environment, encompasses the organisational structure, policies, principles, laws, and rules that are used in controlling all other work environments.

Findings have shown that the work environment can be favourable or toxic. A favorable or conducive environment is the one that makes workers to be comfortable and find satisfaction in their jobs. A favourable work environment is capable of influencing workers' lives positively and makes them to be productive. The toxic work environment, on the other hand, does not allow personal growth and expression among the employees. Such an environment has a way of promoting negative attributes and attitudes among workers generally and eventually leads to low productivity.

Despite several studies on issue of burnout among scholars over the years, in relation to other variables, there is still dearth of information on the relationship among the identified variables discussed above, particularly in Nigerian setting. Hence, this study investigated determinants of burnout among academic staff of public universities in Southwest, Nigeria.

1.1 Hypotheses

Two hypotheses were formulated to guide this study and tested at 0.05 level of significance:

- There is no significant combined effect of job demand, job decision latitude, and work environment in the prediction of burnout among academic staff of public universities in Southwest, Nigeria.
- There is no significant relative effect of job demand, job decision latitude, and work environment in the prediction of burnout among academic staff of public universities in Southwest, Nigeria.

2. Research Methodology

2.1 Design and Participants

The study employed the use of ex-post-facto research design. This is because the independent variables being investigated have already occurred and the researcher is only interested in knowing the influence of the independent variables (job demand, job decision latitude, and work environment) on the criterion variable (burnout) without necessarily manipulating the independent variables.

827 academic staff selected from 6 public universities in Southwest Nigeria (3 Federal and 3 State universities) participated in the study. It reflects about 10.2 percent of the total number of academic staff in all the public universities in South-West Nigeria. Multistage sampling procedure was used to select the sample. The first stage involved simple random sampling procedure and non-proportional stratified sampling. A total of one hundred and twenty (150) academic staff (male and female) were randomly selected (across each faculty and colleges) in each of the public universities, making a total of nine hundred (900) participants in all. However, after data cleaning only 827 properly filled scales were subjected to data analysis. At the second stage, proportional stratified sampling was used to ensure gender and cadre representation of academic staff.

Finally, the simple random technique was used to select the participants.

2.2 Instruments

Four instruments and Biographical data form was used to collect data for the study. The instruments are described below:

2.2.1 Biographical Data Form

A Biographical Data form was a self-constructed tool used to collect data on the demographics, that is, name of the institution, age, gender, faculty, department, participants’ highest qualification, status, work experience, marital status and working duration.

Maslach Burnout Inventory-Human Services Survey (MBI-HSS): This is an adopted survey by Maslach and Jackson (1986) to measure burnout among workers. It has 22 items on a 7-point Likert scale with response inform of 0 (never) to 6 (every day). The scale has three components including emotional exhaustion, depersonalization and personal accomplishment having 9, 5 and 8 items respectively. Reliability values of 0.90, 0.76 and 0.76 have been reported for the respective domains by scholars like Iwanicki and Schwab (1986) and Gold (1986) using Cronbach alpha method for the internal consistency.

Job Content Questionnaire (JCQ): This is an adopted questionnaire designed by Karasek’s (1989) to measure job demand and job decision latitude. The two terms are also regarded as job control. It has been reported that the questionnaire has internal consistency of 0.79 and 0.88 alpha coefficient by past researchers (Chay, 1993; Jex, & Bliese, 1999; Xie, 1996;). The entire instrument is a 5-point Likert scale instrument having responses ranging from 1 (*never*) to 5 (*extremely often*). Example of the items in the questionnaire include “*To what extent does your job require your working fast?*”, “*To what extent does your job require a great deal of work to be done*”. The job decision latitude subscale has nine items with reported alpha coefficient values 0.77 to 0.85 (Chay, 1993; Xie, 1996;).

2.2.2 Work Environment Questionnaire

Copenhagen psychological questionnaire designed and developed by Kristensen et al. (2005) was adopted for measuring work environment. This was used because of its application to measure different domains of work environment such as social, cognitive, and emotional aspect of workplace affecting workers. Different versions of the questionnaire had evolved of the years. But the recent and adopted one for this study is the short version having 23 items with 8 dimensions. It is a 5-point Likert scale with responses like 1=do not agree at all, 2=agree to some extent, 3=agree, 4 = agree to a great extent and 5=fully agree. A high reliability value from 0.72 has been reported by Nuebling *et al.* (2005) with confirmatory factor analysis for the validity.

2.3 Procedure for Data Collection

The five instruments were compiled into a battery and administered on the participants in their various offices. To reach the individual respondents, visits were made by the researcher to the sampled universities to conduct the study in their institution. A total of four weeks and four days were used for the administration and collection of the questionnaires. Out of the one thousand 900 only 827 were properly filled in and deemed adequate for analysis. The response rate of the survey was 91.9%. The data resulting from the scoring of the instruments and coding of the demographic items were then subjected to multiple regression (stepwise).

3. Results

Two issues were addressed by the present study. One of the issues was to know the extent of the contributions of job demand, job decision latitude, and work environment to the prediction of public universities academic staff burnout. The second issue of concern was to find out the variable that is most potent in predicting burnout among public universities academic staff. The results of the data analysis that provide answers to the hypotheses are presented below:

Table 1: Model summary of the multiple regression analysis between the predictor variables (job demand, job decision latitude, and work environment) and the outcome measure (burnout).

Regression Model	ANOVA					
		Sum of Squares	Df	Mean Square	F	Sig.
R = .391	Regression	35257.195	4	88814.299	37.228	.000 (a)
R Square = .153	Residual	194857.675	823	236.765		
Adjusted R Square = .149	Total	230114.870	827			

a. Predictors: (Constant), job demand, job decision latitude, and work environment

b. Dependent Variable: burnout

The results in Table 1 above revealed that job demand, job decision latitude, and work environment when taken together significantly predict burnout among public universities academic staff ($R = .391$; $R^2 = .153$; R^2 (adj) = .19; $F(4,823) = 37.228$; $p < .05$). This revealed that 15.3% of the variance in the burnout among public universities academic staff was accounted for by the combination of job demand, job decision latitude, and work environment. These results implied that the first hypothesis of no significant combine effect of job demand, job decision latitude, and work environment in burnout among public universities academic staff is rejected.

To determine the contribution of each of the job demand, job decision latitude, and work environment in the prediction of burnout among public universities academic staff, a stepwise regression analysis was undertaken. Results are as shown in table 2 below:

Table 2: Model summary of the Stepwise Multiple Regression Analysis for the combined effect of job demand, job decision latitude, and work environment to the prediction of burnout among public universities academic staff

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df 1	df 2	Sig. Change	F
1	.289(a)	.083	.082	15.98096	.083	75.029	1	826	.000	
2	.356(b)	.127	.125	15.60595	.044	41.175	1	825	.000	
3	.383(c)	.147	.144	15.43609	.020	19.257	1	824	.000	

- a. Predictors: (Constant), job decision latitude
- b. Predictors: (Constant), job decision latitude, job demand
- c. Predictors: (Constant), job decision, job demand, work environment

The results in Table 2 above indicated that when job decision latitude was entered into the regression model as the first predictor variable based on the strength of its relationship with burnout, there was a significant contribution to the prediction of burnout ($R = .289$; $R^2 = .083$; $Adj R^2 = .082$; $F_{(1, 826)} = 75.029$; $p < .05$). By this, job decision latitude alone accounted for 8.2 percent of the variance in burnout. When job demand was introduced into the regression model as the second predictor variable, together with job decision latitude, it revealed a significant effect on burnout ($R = .356$; $R^2 = .127$; $Adj R^2 = .125$; $F_{(1, 825)} = 17.931$; $p < .05$). This revealed that job decision latitude and job demand together predicted 12.5% of the burnout. In effect, job demand was able to add about 4.3 percent to the prediction of burnout of academic staff of universities in Southwest, Nigeria. When work environment was introduced as the third independent variable into the regression model together with job decision latitude and job demand, it revealed a significant effect on burnout ($R = .383$; $R^2 = .147$; $Adj R^2 = .144$; $F_{(1,824)} = 19.257$; $p < .05$).It was revealing that Job decision latitude, Job demand, and Work environment together predicted14.4% of the burnout. In effect, work environment was able to contribute about 1.9% to the prediction of burnout.

Table 3 below provides information on the potency of the predictor variables at predicting the criterion variable.

Table 3: Beta Coefficients and t-ratio for relative effect of job demand, job decision latitude, and work environment to the prediction of burnout among public universities academic staff

	Unstandardized Coefficients	Standardized Coefficients	t-Ratio	Sig.
	B	Beta		
(Constant)	25.314		7.517	.000
Job demand	.403	.119	3.005	.003
Job decision latitude	.507	.192	5.544	.000
Work environment	.188	.136	3.766	.000

- a. Dependent Variable: burnout

The results table 3 shows that the independent variables (Job decision latitude, Job demand, and Work environment) made significant relative contribution to the prediction of burnout among academic staff of universities in Southwest, Nigeria. Job decision latitude made the highest contribution ($\beta = .192$; $t = -5.544$; $p < .05$) followed by Work environment ($\beta = .136$; $t = 3.766$; $p < .05$), follow by job demand ($\beta = .119$; $t = 3.005$; $p < .05$). This implies

that burnout among academic staff of universities in Southwest, Nigeria to a large extent depends on (job decision latitude and work environment) ability of workers to control tasks given to them and the way they are carried out in relation to workers' decision-making authority, chances to be involved in decision making and use their skills and knowledge in the work place and the settings, situation, conditions and circumstances under which people work.

4. Discussion

This study investigated whether job demand, job decision latitude and work environment could predict burnout among academic staff of universities in Southwest, Nigeria. This study is hinged on the need to provide an empirical basis for the improvement academic staff of universities performance in Southwest Nigeria, and secondly, to provide further empirical support to the predictor variables used in this study in contemporary literature, particularly in the developing country like Nigeria. Findings showed job demand, job decision latitude and work environment significantly predicted burnout.

This finding has demonstrated the effectiveness of the predictor variables in determining burnout among academic staff of universities in Southwest, Nigeria. This, in effect, attests to the strong relationship between the predictor variables and the criterion measure. This outcome agrees with earlier ones by other scholars that the problem of stress has relationship with burnout which is a product of many factors such as high job demand, work-family conflict, role ambiguity, inadequate resources, problem of deviant behaviours among students, lack of participation in decision making and role conflict among others (Gyaki, 2014; Hu, et al., 2020; Marchand, 2018). Other scholars like Jackson et al. (2006) also confirmed an association among burnout, job conditions and workers personal expectations. However, this finding does not agree with the position of Zhao and Namasiyayam, (2012) that work-family conflict was solely responsible for burnout and job dissatisfaction among workers.

This study also corroborates the findings of Schieman & Glavin, (2008) stating that workers identified with high decision latitude at work have tendency of overcoming burnout and the associated stress compared with those with low decision latitude who are prone to experiencing psychological stress. This work is again line with that of Özkanal and Arıkan (2010) who opined that work environment is a significant predictor of burnout among university workers. This contradicts the position of Voydanoff (2004) that job autonomy and burnout are negatively related. Maslach, Jackson, and Leiter (2001) in their work established job demands and lack of resources as predictors of burnout.

5. Conclusion and Recommendations

The findings of this study reveal that University academic staffs are not immune against burnout and

other work-related challenges affecting workers generally. It can be deduced therefore, burnout could be a product of prolonged stress because of excessive workload, poor working relationship with colleagues at work, unconducive working environment, inadequate resources for teaching – learning process, role conflict, lack of social support and inability to be involved in decision making among others. It is important to note that the effects of burnout differ from one person to another based on varying social and emotional supports received at different levels. However, the concept of burnout is an essential issue to be critically investigated among the University academics because it could serve as one of the indicators for measuring quality of education in any society.

The present study, therefore, has contributed to knowledge on some determinants of burnout among university academic staff which makes it unique among other studies on burnout. The outcome of this study showed a very high prevalence of burnout among university academic staff, therefore there should be programs which will facilitate the recognition, prevention, and treatment of burnout related problem.

Based on the findings of this study, the following recommendations are necessary as a follow-up to the findings and conclusion of this study:

Government, university administrator and university management should improve on university work environment by providing necessary facilities that will enhance favourable work environment. This will help in reducing the level of burnout among the university academic staff.

Work incentives should be given to academic staff to make them relaxed and refreshed on their jobs. Such incentive should include opportunities to observe annual leaves with due benefits with favourable working condition of service also adequate payment of salaries and other welfare packages for academic staff should be of paramount to university administrators.

University academic staff should be encouraged to make use of counselling facilities around for guidance and general wellness.

Recreation facilities should made available within the University premises for relaxation of staff and there should be seminars, programs, and workshops where the academic staff in the university can discuss burnout related problem and find a solution through the help of a psychologist and counselor.

References

- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD-R approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 389–411. <https://doi.org/10.1146/annurev-orgpsych-031413-091235>
- Bakker, A. B. (2017). Strategic and proactive approaches to work engagement. *Organizational Dynamics*, 46(2), 67–75. <https://doi.org/10.1016/j.orgdyn.2017.04.002>
- Bakker, A. B., Demerouti, E., & Xanthopoulou, D. (2020). Too burned-out to deal with weekly job demands? multilevel approach of employee well-being, coping, and self-undermining. Manuscript under review.
- Bakker, A. B., Du, D., & Derks, D. (2019). Major life events in family life, work engagement, and performance: A test of the work-home resources model. *International Journal of Stress Management*, 26(3), 238–249. <https://doi.org/10.1037/str0000108>
- Bakker, A. B., & Demerouti, E. (2017). Job Demands–Resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285. <https://doi.org/10.1037/ocp0000056>
- Bakker, A. B., & Demerouti, E. (2018). Multiple levels in job demands-resources theory: Implications for employee well-being and performance. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of well-being* (pp. 1–13). DEF Publishers.
- Barlow, K. (2020). Gendered Experiences of Nursing Job Demands and Resources (Master's thesis, Bowling Green State University). OhioLINK Electronic Theses and Dissertations Center.
- Bilehsavar, A., Nohesara, S., Najarzagdegan, M., Molaei, P., Alavi, K., & Nadoushan, A. (2017). Investigation of personality traits in attending of Iran University of Medical Sciences and its relation with general health, quality of life and job burden. *Journal of Ardabil University of Medical Sciences*, 17(1), 90 - 103.
- Butao, M. B. C., Arquiola, D. G., Talidro, M. J., Donoso, B. C. K., Mongado, S. R. L., Funcion, N. P., Gumanoy, A. D., & Fadare, A. S. (2021) Impact of burnout among dialysis nurses providing high-quality care in Butuan City, The Philippines, Orapuh, Inc. DOI: <https://dx.doi.org/10.4314/orapj.v2i3.7>
- Chay, Y. (1993). Social support, individual differences and well-being: A study of small business entrepreneurs and employees. *Journal of Occupational and Organizational Psychology*, 66, 285-302. <https://doi.org/10.1111/j.2044-8325.1993.tb00540.x>
- Demerouti, E., Bakker, A. B., & Xanthopoulou, D. (2019). Job Demands-Resources theory and the role of individual cognitive and behavioral strategies. In T. Taris, M. Peeters, & H. De Witte (Eds.), *The fun and frustration of modern working life: Contributions from an occupational health psychology perspective* (pp. 94–104). Pelckmans Pro.
- Doré, C., Duffett-Leger, L., McKenna, M., Breau, M., & Dorais, M. (2018). Burnout and empowerment in hemodialysis nurses working in Quebec: A Provincial Survey.
- Friedman, I.A. (1991). High and low-burnout schools: School culture aspects of teacher burnout. *Journal of Educational Research*, 84, 325-333.
- George, K. A., Isaac, S. O., Mabel A. H., & Yaw B. A. (2017) The Effect of Work Environment on Job Satisfaction: Evidence from the Banking Sector in Ghana. *Journal of Human Resource Management*. 5, 12-18. doi: 10.11648/j.jhrm.20170501.12
- Gold, Y. (1986). The factorial validity of the Maslach Burnout Inventory in a sample of California elementary and Junior High School Classroom Teachers. *Educational and Psychological Measurement*, 44, 1009–1016.
- Gyaki, E. (2014). Stress and burnout out and coping strategies among lecturers in the Ghanaian tertiary institutions: The case of University of Education, Winneba. An unpublished Master of Philosophy thesis submitted to the Department of Psychology and Education, University of Education, Winneba.
- Hu, Q., Schaufeli, W. B. & Taris, T. W. (2020). How are changes in exposure to job demands and job resources related to burnout and engagement? A longitudinal study among Chinese nurses and police officers. *Stress.Health*. 3, 631–644.
- Iwanicki, E. F., & Schwab, R. L. (1986). A Cross-Validational Study of the Maslach Burnout Inventory. *Educational and Psychological Measurement*, 41(1),1167-1174.
- Jex, S. M., & Bliese, P. D. (1999). Efficacy beliefs as a moderator of the impact of work-related stressors: A multilevel study. *Journal of Applied Psychology*,84(3), 349-361.

- Jones, F., & Fletcher, B. C. (2006). Job control and health. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.), *Handbook of work and health psychology* 33–50. Chichester: Wiley.
- Karasek, R. (1989). *Job content questionnaire and user's guide. Revision 1.1*. Los Angeles: Department of Industrial and Systems Engineering, University of Southern Los Angeles.
- Karasek, R. (1998). Demand/control model: A social, emotional, and psychosocial approach to stress risk and active behaviour development.
- Kristensen, T. S., Hannerz, H., Hogh, A. & Borg, V. (2005). The Copenhagen Psychosocial Questionnaire - a tool for the assessment and improvement of the psychosocial work environment. *Scandinavian Journal of Work, Environment & Health*, 31(6), 438-49.
- Marchand, A., Blanc, M. & Beauregard, N. (2018). Do age and gender contribute to workers' burnout symptoms? *Occupational Medicine*, 68(6), 405–411.
- Maslach, C. & Leiter, M. P. (2016). Stress: Concepts, Cognition, Emotion, and Behavior, *Handbook of Stress Series* 1:351–357. DOI: <https://doi.org/10.1016/B978-0-12-800951-2.00044-3>
- Maslach, C., & Jackson, S. E. (2001). The Maslach Burnout Inventory. Palo Alto, CA: *Consulting Psychologists Press*.
- Maslach, C., Jackson, S.E., Leiter, M.P. (2001). *Maslach Burnout Inventory manual. 3.ed.*, Palo Alto, CA: Consulting Psychologists Press.
- Nuebling, M., Stoessel, U., Hasselhorn, H.M., Michaelis, M. & Hofmann, F. (2005). Measuring psychological stress and strain at work: evaluation of the COPSOQ Questionnaire in Germany.
- Opperman C. S. (2002). *Tropical business issues*. Partner Price Water House Coopers. International Business Review.
- Ornelas, S. & Kleiner, B. H (2003). New Development in Managing Job Related Stress, *Journal of Equal Opportunities International*, 2(5), 64-70.
- Özkanal, Ü., Arikan, N. (2010). Investigation of burnout among instructors working at Esogu preparatory school. *English Language Teaching*, 3(1), 166-172.
- Peter, P. & Le Blane, M. (2001). The effect of work demands and resources on work-to-family conflict and facilitation. *Journal of Marriage and Family*, 66(2), 398-412. doi:10.1111/j.1741-3737.2004.00028
- Raziq, A. & Maulabakhsh, R. (2015). Impact of Working Environment on Job Satisfaction. *Procedia Economics and Finance*, 23, 717–725.
- Salunke, G. (2015). Work Environment and Its Effect on Job Satisfaction in Cooperative Sugar Factories in Maharashtra, India. *Abhinav International Monthly Refereed Journal of Research in Management & Technology*, 4 (5), 21-31. <http://doi.org/10.1371/journal.pone.0117834>
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25, 293-315.
- Schieman, R. A., & Glavin, T. H. (2008). Lagged effects of family-supportive organization perceptions and supervisor behaviors in relation to generalized work-related resources. *Journal of Occupational Health Psychology*, 20(3), 301-313. <https://doi.org/10.1037/a0038377>
- Tran, K. T., Nguyen, P. V., Dang, T., & Ton, T. (2018). The Impacts of the High-Quality Workplace Relationships on Job Performance: A Perspective on Staff Nurses in Vietnam" *Behavioral Sciences* 8, 12: 109. <https://doi.org/10.3390/bs8120109>
- Voydanoff, P. (2004). The effect of work demands and resources on work-to-family conflict and facilitation. *Journal of Marriage and Family*, 66, 398-412.
- Xie, J. (1996). Karasek's model in the people republic of China: Effects of job demands, control, and individual differences. *Academy of Management Journal*, 39(6), 1594-1618.
- Zhao, X. & Namasivayam, K. (2012), The relationship of Chronic Regulatory Focus to Work-Family Conflict and Job Satisfaction. *International Journal of Hospitality Management*, 31(2), 458-467.