



## Influence of Occupational Stress on Work Engagement among Nigerian Library Personnel

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### Abstract

The study examined occupational stress and job engagement among library personnel at selected Nigerian state and federal universities. A descriptive survey methodology was employed in the study. This study used questionnaires for ascertaining work engagement and occupational stress to survey 76 respondents. Results indicated that library personnel experienced high occupational stress, which displayed significantly low levels of job engagement. In contrast, those with a low level of occupational stress showed significantly increased levels of engagement at work. The data suggested that female library personnel reported experiencing more occupational stress than male library personnel and the mean difference was statistically significant,  $t(74) = -3.416$ ,  $p = .001$ . The limitation of this research includes the smallness of sample size, which calls for a larger sample to validate the findings further. Rational emotive behavioral therapy can be adapted for managing the levels of work engagement and occupational stress in librarians.

## INTRODUCTION

Any educational system would be incomplete without an academic library. Academic activities are supported by the school's library, which improves students' academic achievement (Maya & Bala, 2020). Without librarians, however, academic libraries cannot fulfill this crucial role. In higher education institutions, librarians are responsible for obtaining, maintaining, and processing library items so staff, students, and researchers can use them (Ilo, 2016). Library personnel are no exception to occupational stress (Harwell, 2013). Occupational stress is described as a chronic strain that has its source in the incongruence between workplace requirements and workers' capabilities (Harwell, 2013). It is mainly caused by depleted mental and emotional resources, tension, fatigue, and repetitive activities, among other factors. According to Sowmya and Panchanatham (2011), occupational stress occurs when employees are continually stressed due to insufficient resources to meet their jobs' demands or struggle with professional efficacy issues. Due to the increased stress, there is a loss of initial drive and curiosity before assuming specific responsibilities. From a different perspective, Paskey (2012) asserts that one of the latent triggers of occupational stress that is often associated

with excessive stress occurs when rewards are not proportionate to performance or when the current job becomes mundane and unfulfilled. This is the case of the ever-dynamic nature of current library services.

For instance, there is a swift booming of higher education, with the increasing student population and the initiation of diverse modes of learning like evening classes, distance learning, and e-learning (Akakandelwa & Jain, 2013). However, according to Mukhanji et al. (2016), these developments are frequently out of step with the resources required for increased productivity in the education sector, such as funding, staffing levels, computer laboratories, and library resources. Akakandelwa and Jain (2013) state that university libraries have continuously experienced a decrease in financial support, staffing, and infrastructure development. These factors present severe and inappropriate working conditions in libraries, resulting in increased stress for librarians (Vijayakumar & Remy, 2013; Ogunlana et al., 2013).

Furthermore, the introduction of information technology has changed university libraries' practices over time, transitioning from the conventional library system to the digital library system. (Ranjna, 2015) presents additional requirements from the librarians. Technology was also revealed as a key factor for stress in the library (Ranjna, 2015). Techno-stress expresses as elevated work pressure, role ambiguity, depletion, emotional exhaustion, and reduced work fulfillment (Taradar et al., 2014). Technology leads to increased employee stress when they are unprepared with respect to the needed expertise to use new technology. These changes also indicate that library professionals are stressed because they will have to readjust the way they live so that they can keep up with the fast pace of change in the library environment. Consequently, it is not uncommon for employees in the library section of the universities to become resentful, frustrated, and even leave their jobs when they are suffering from occupational stress, according to Powell (2011).

There are different approaches to conceptualizing stress. Three models explain the concept of stress, including a stimulus-based approach, a response-based approach, and a transaction-based approach (Papathanasiou et al., 2015). According to the stimulus-based approach, stress is examined in terms of external pressure placed on a person, which causes them to act in certain ways. In contrast, the response-based approach examines stress in terms of physiological reaction to the external situation (Bradley & Sutherland, 1995). On the other hand, the transaction-based approach defines stress as an outcome of individuals' lack of resources to cope with environmental demands (Papathanasiou et al., 2015). In this study, stress is defined as psycho-emotional disturbance arising from the lack of library personnel's resources to manage work strains.

Librarians provide tutoring support to students, which is essential for academic guidance (Ilechukwu et al., 2022). By enabling students to receive academic support, library personnel contribute to improving student engagement and enhancing the ability of educational institutions to provide student instruction (Ilechukwu et al., 2022).

Ironically, most library personnel are not engaged in their work to effectively discharge their responsibilities (Dina & Olowosoke, 2018). Accordingly, Akinola (2020) notes that work engagement is demonstrated when people show passion for their job and are engaged in, attached to, and devoted to it. A work-engaged individual has psychological, behavioral, and emotional characteristics to attain desirable workplace outcomes (Shuck & Wolland, 2010). Consequently, work engagement provides employees with the necessary functional capabilities to achieve the desired results in the workplace with defined job characteristics. As applied to this research, work engagement implies library personnel's dedication, enthusiasm, and optimistic outlook about their work. Employee work engagement in libraries impacts students' academic journey (Weaver, 2013). Therefore, the relationship between students and librarians is essential to achieve maximum work engagement among librarians (Soria & Nackerud, 2017).

The value of librarians in the academic community is being recognized as they become increasingly concerned about work engagement (Norris & Norris, 2020). Several studies have emphasized the role of work engagement in personal and organizational outcomes (Bakker, Arnold & Leiter, 2010; Menguc, Auh, Yeniaras, & Katsikeas, 2017; Ongore, 2014). High levels of work engagement create a healthy environment for librarians to work (Harwell, 2013). On the other hand, poor engagement leads to a lack of extra-role behavioral patterns that result in outstanding individual consequences and have a negative impact on organizations due to a lack of vitality and effectiveness (Norris, & Norris, 2020). Disengaged staff members are detached, disconnected, demotivated, and unenthusiastic about their job, which leads to reduced service delivery, increased rates of turnover, and lower satisfaction among customers (Abu-Shamaa, Al-Rabayah, & Khasawneh, 2015).

Martin (2020) found an average level of engagement among library staff. The study showed that librarians in public, special, academic, and school settings and those carrying out patron responsibilities and administrative duties had different levels of engagement at work. Work engagement has a positive association with job resources like social support, task variety, performance evaluations, job control, and the opportunity to learn and grow (Williamson, 2017). According to Ongore (2014), disengaged and engaged employees exhibit distinct personal differences. A number of personal characteristics make up engaged workers, including extraversion, conscientiousness, emotional stability, and psychological capital, according to Ongore (2014) and Bakker, Arnold, and Leiter (2010). Attributes like organizational-based self-esteem, optimism and self-efficacy may distinguish more engaged workers from less engaged workers (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Hence, work engagement is a pathway to more significant outcomes for employees in service-based institutions such as libraries (House, 2018; Schaufeli & Taris, 2014).

Employees' work engagement is crucial in understanding occupational stress across contexts. Literature tends to suggest that an absence of work engagement is an

outcome of occupational stress (Harwell, 2013). Workplace cultural and technological advances are recognized as key sources of stress among employees (Vijayakumar & Remy, 2013). Gandi et al. (2011) propose that stress encompasses cognitive appraisals, physiological reactions, and behavioral patterns that result from an assumed discrepancy of situational requirements with resources needed for handling them. Furthermore, Somvir and Kaushik (2013) define stress as alterations that the human body undergoes as it tries to adapt to an environment that is continuously changing. Personnel requires a reasonable amount of stress to be proactive and competent for effective organizational functioning (Somvir & Kaushik, 2013). However, it becomes pathological when it interferes with an employee's workability.

Work engagement has been conceptualized differently, considering three elements associated with an individual's participation and fulfillment with an eagerness for work (Breaugh, 2021; Salahudin et al., 2016). Conceptually, work engagement involves the employees' vigor, dedication, and absorption (Schaufeli & Bakker, 2003; Schaufeli, Bakker, & Salanova, 2006). Vigor represents a high level of energy or drives to expend effort, persistence, and time needed for work accomplishments. Dedication represents a sense of deep involvement in work and a sense of meaning, eagerness, motivation, and fulfillment for challenges associated with an individual's job. Absorption is being focused and concentrated on work (Crawford, LePine & Rich, 2010). In the present research, the researchers considered work engagement as a constellation of the three psycho-emotional and physical elements that involve an individual's total commitment to job accomplishment. The researchers measured it as the total of vigor, dedication, and absorption.

Stress has been found to be highly prevalent among library staff. Empirical evidence indicates that a preponderance of library professionals is stressed in different countries (Agyei, Aryeetey, Obuezie, & Nkonyeni, 2019a; Ilo, 2016; Vij, 2017; Wilkins, 2014). For example, library staff working in university libraries perceived a moderate to extreme degree of occupational stress (Ogunlana et al., 2013). Agyei, Aryeetey, Obuezie, and Nkonyeni (2019b), in a study of librarians' occupational psychosocial stress across three African countries, established the prevalence of occupational psychosocial stress in librarians from Ghana, Nigeria, and South Africa, with work roles as the leading variable affecting occupational stress in the participants.

Particularly in Nigeria, studies revealed that academic librarians exhibited a substantial level of job stress regardless of their sex, designation, and place of work, and the majority of the librarians were dissatisfied with their conditions of service (Adewoyin, Ehioghae & Olorunsaye, 2020; Ajala, 2011; Dina, 2016; Ekwelem, 2015; Ilo, 2016). There is no doubt that library personnel faces a difficult and demanding work environment leading to stress in Nigeria. According to Adebayo, Segun-Adeniran, Fagbahun, and Osayande (2018), there is a lack of variation in the library, making it boring to work in it. Their opinion is that library jobs are monotonous because of their

repetitive nature, which leads to boredom. Several studies, such as that conducted by Siamian et al. (2006), indicate that stress is a significant issue among library personnel. Stressors among the library personnel included lack of facilities, insufficient time to complete a task, not being allowed to offer suggestions, or working in an unfriendly environment. Other stressors included role ambiguity and employee demotivation, which could lead to work disengagement.

Padula, Chiavegato, Cabral, Almeid, Ortiz, and Carregaro (2012) discovered a linkage between work-related stress and engagement ( $p=0.001$ ) in a study that sought to investigate the association between occupational stress and engagement of workers in the metallurgical industry. The authors discovered how an individual handles his feelings of frustration or work engagement is related to occupational stress. Fiabane, Giorgi, Sguazzin, and Argentero (2013) discovered that physiotherapists with the highest levels of occupational stress were disengaged from their work in a related study. Studies further revealed a positive connection between occupational stress and engagement that is linear for high and low levels of engagement but nonlinear for medium levels of engagement (Braugh, 2021; Cordioli, Cordioli, Gazetta, Silva, & Lourenço, 2019; Fiabane, Giorgi, Sguazzin, & Argentero, 2013; Karatepe, Beirami, Bouzari, & Safavi, 2014; Simon, & Amaral, 2015). However, little is known about how occupational stress influences work engagement in library personnel in Nigeria.

Studies have indicated that occupational stress rates are within 60-75% among library personnel (Adebayo, Segun-Adeniran, Fagbahun, & Osayande, 2018; Akinola, 2020; House, 2018). House (2018) noted that factors such as job demand, job resources, and personal and situational resources account for more than 40-50 percent of occupational stress among library personnel. Previous studies revealed that work engagement is a potential factor that influences occupational stress (Bakker & Demerouti, 2017; Chou et al., 2012; Damman, Henkens, & Kalmijn, 2013). Stress and work engagement among workers are frequent topics in studies (Popoola & Olalude, 2013; Towers, 2013). Fewer studies are focusing exclusively on librarians to determine levels of work engagement and stress (e.g., House, 2018). There are also few studies that have investigated the influence of stress on work engagement among library workers (e.g., Akinola, 2020).

This research aimed to examine the influence of occupational stress on work engagement among library personnel at selected Nigerian state and federal universities. The researchers also examined the mean level of occupational stress of library personnel by sex and hypothesized a statistically significant difference. Perceived occupational stress was hypothesized to determine the level of work engagement in library personnel. Thus, the researchers conceptualized reduced work engagement as an outcome of perceived stress. This proposition is supported by Khairuddin and Nadzri (2017), who conceptualized the relationship between stress and work engagement within the context of Malaysian private academics. The current study intends to extend the conceptual model

in the context of university library staff in Nigeria. Based on the proposed model, the vigor (drive), dedication (commitment towards work), absorption (focus on the study), and total engagement score can increase or decrease following changes in the personnel's perceived occupational stress. Informed by data, the researchers tried to validate this framework and discussed its implications.

## METHOD

This study used a descriptive survey design. According to McCombes (2020), descriptive survey research is used to collect data and systematically describe facts and characteristics about a population by asking what, how, why, and when questions. The researchers considered the design appropriate since it was useful for gathering information about occupational stress and the work engagement of library personnel.

The study took place at four selected state and three federal universities in Southeast Nigeria. This study included 76 library personnel who were purposively sampled. The Faculty of the Education Research Ethics Committee of the University of Nigeria approved the research. All respondents provided informed consent.

The researchers used self-report instruments to collect data. The instruments used are the Job Stress Scale (JSS) by Lambert, Hogan, Camp, and Ventura (2006) and Utrecht Work Engagement Scale-9 (UWES-9) by Schaufeli, Bakker, and Salanova (2006). The JSS has five items on a 5-point Likert-type scale [(strongly disagree (1) to strongly agree (5)]. An example of an item in the JSS is: I am usually under a lot of pressure when I am at work. The UWES-9 contains nine items and is considered a shortened version of the initial scale for assessing employees' engagement at work on a 7-point Likert-type response option [(Never (0) to 6 (Always)]. The UWES-9 has three subscales: Vigor (VI; 3 items), Dedication (DE; 3 items), and Absorption (AB; 3 items). An example of an item in the UWES-9 is: At my job, I feel strong and vigorous. The internal consistency of the instruments was determined using Cronbach's alpha method. The instruments were administered to twenty academic library personnel outside the study area. A reliability coefficient of 0.87 was obtained for JSS and 0.85 for UWES.

Mean, standard deviation, and frequency were used for data analysis. The t-test, multivariate, and regression analysis with a significance threshold of 0.05 were used to test the hypothesis. The causal influence of occupational stress on the work engagement of library personnel was demonstrated using path analysis. All analyses were conducted with SPSS, version 22, WarpPLS version 8.0, and JASP version 0.16.1 statistical programs.

## RESULTS

Based on the data collected, 29 (38.2%) library personnel reported a low level of occupational stress, whereas 47 (61.8%) library personnel reported a high level of occupational stress. On the other hand, 47 (61.8%) library personnel reported low levels

of work engagement, whereas 29 (38.2%) library personnel reported high levels of work engagement. Forty-one (53.9%) of library personnel were from state universities, whereas 35 (46.1%) were from federal universities. Out of the 76 respondents, the male library personnel were 35 (46.1%), whereas the female library personnel were 41 (53.9%). Their mean age was  $37.37 \pm 4.14$ .

**Table 1: Mean level of occupational stress of library personnel by sex**

Sex	Mean	SD	N	Skewness	Kurtosis
Male	13.89	6.58	35	.27	-1.89
Female	18.49	5.16	41	-1.33	-.09
Total	16.37	6.26	76	-.49	-1.69

SD=Standard Deviation, N=Number of respondents

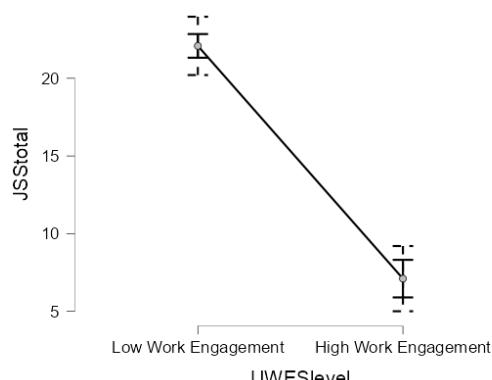
Table 1 shows that male library personnel reported a mean occupational stress score of  $13.89 \pm 6.58$ , whereas female library personnel reported a mean occupational stress score of  $18.49 \pm 5.16$ . The data suggest that female library personnel experienced more occupational stress than male library personnel and the mean difference was statistically significant with  $t(74) = -3.416$ ,  $p = .001$ , mean difference = -4.60, 95% confidence interval = -7.29, -1.92.

**Table 2: Descriptive statistics for library personnel's occupational stress and work engagement scores**

Level of stress		UWES-VI	UWES-DE	UWES-AB	UWES-total
Low stress	Mean	14.97	14.20	13.59	42.76
	SD	1.43	1.01	1.72	2.52
	N	29	29	29	29
High Stress	Mean	3.83	4.79	3.85	12.47
	SD	1.07	2.28	2.13	4.95
	N	47	47	47	47

Note: VI=Vigor, DE=Dedication, AB=Absorption, SD=Standard Deviation, N=Number of respondents

Table 2 shows that library personnel with a low level of occupational stress indicated high work engagement levels (UWES-VI= $14.97 \pm 1.43$ ; UWES-DE= $14.20 \pm 1.01$ ; UWES-AB= $13.59 \pm 1.72$ ; UWES-total= $42.76 \pm 2.52$ ). On the other hand, library personnel with a high level of occupational stress indicated low work engagement levels (UWES-VI= $3.83 \pm 1.07$ ; UWES-DE= $4.79 \pm 2.28$ ; UWES-AB= $3.85 \pm 2.13$ ; UWES-total= $12.47 \pm 4.95$ ).



**Figure 1: Influence of occupational stress on work engagement of library personnel.**

Figure 1 shows an alternative illustration regarding the influence of occupational stress on the work engagement of library personnel.

**Table 3: Regression analysis of the influence of library personnel's occupational stress on their work engagement**

Model		Sum of Squares	Df	Mean Square	F	P
H <sub>1</sub>	Regression	2705.62	3	901.87	282.24	< .001
	Residual	230.07	72	3.20		
	Total	2935.68	75			

Table 3 shows a significant influence of occupational stress on the work engagement of library personnel,  $F (3,72) = 282.24$ ,  $p<.001$ . Therefore, the researchers accepted hypothesized relationship of occupational stress with the work engagement of library personnel.

**Table 4: Comparisons based on multivariate analysis for library personnel's levels of occupational stress and work engagement**

Dependent Variable	(I) JSS	(J) JSS	MD(I-J)	P	95% CI
UWES-VI	Low stress	High Stress	11.14*	< .001	10.56, 11.71
	High Stress	Low stress	-11.14*	< .001	-11.71, -10.56
UWES-DE	Low stress	High Stress	9.42*	< .001	8.52, 10.32
	High Stress	Low stress	-9.42*	< .001	-10.32, -8.52
UWES-AB	Low stress	High Stress	9.74*	< .001	8.80, 10.67
	High Stress	Low stress	-9.74*	< .001	-10.67, -8.80
UWES- total	Low stress	High Stress	30.29	< .001	28.32, 32.27
	High Stress	Low stress	-30.29	< .001	-32.27, -28.32

Note: VI=Vigor, DE=Dedication, AB=Absorption, JSS=Job Stress Scale, UWES= Utrecht Work Engagement Scale, CI= Confidence Interval for Difference, and MD= Mean difference, \*Significant at the .05 level.

Table 4 shows that there was a significant influence of library personnel's levels of occupational stress on their vigor (*mean difference*=11.14,  $p<.001$ ), dedication (*mean difference*=9.42,  $p<.001$ ), absorption (*mean difference*=9.47,  $p<.001$ ), and total engagement at work (*mean difference*=30.29,  $p<.001$ ). This implies that work engagement among library personnel increases as their degree of occupational stress decreases and vice-versa.

**Table 5: Multivariate analysis of the effect of library personnel's occupational stress on their work engagement**

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial $\eta^2$
JSS level	Pillai's Trace	.96	520.16	3.00	72.00	.000
	Wilks' Lambda	.04	520.16	3.00	72.00	.000

Note: JSS=Job Stress Scale

In Table 5, the multivariate test further shows a statistically significant effect of occupational stress on library personnel's work engagement levels,  $F (3, 72) = 520.16$ ,  $p< .001$ ; Wilk's  $\Lambda=.04$ , Pillai's  $T=.96$ , Partial  $\eta^2=0.99$ . Therefore, library personnel's

work engagement levels were significantly dependent on their occupational stress level. This result further supports the acceptance of the hypothesized relationship of occupational stress with the work engagement of library personnel.

Consistent with the hypothesized relationship, a statistically significant influence of occupational stress on library personnel's work engagement levels was observed (see Fig. 2). The figure shows that all aspects of work engagement were significantly correlated with occupational stress. Thus, an increase in occupational stress accounted for reductions in the work engagement scores of participants.

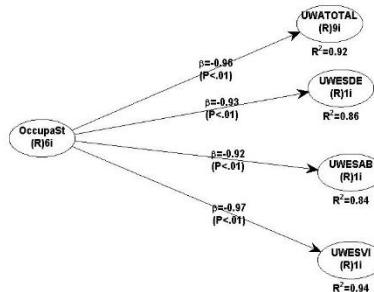


Figure 2: Theoretical representation of the causal influence of occupational stress on the work engagement of library personnel.

## DISCUSSION

With the increased occupational stress in Nigerian library personnel, it is necessary to trace different dimensions of work dysfunctionality and stress in the workplace. Work engagement is an important factor for effective library services. Research into how occupational stress could impact the work engagement of library personnel is still emerging. This study investigated the influence of occupational stress on work engagement among library personnel in state and federal universities in South-East Nigeria. The study showed that library personnel with high occupational stress showed significantly low levels of engagement at work. In contrast, those with low levels of occupational stress showed significantly high levels of engagement at work.

This study outcome supports the findings of Siamian et al. (2006), who discovered a high level of stress among library employees. The findings are consistent with those of Bakker and Demerouti (2008) and Chou et al. (2012), who concluded that engagement at work is affected by the degree of job stress. Furthermore, Damman, Henkens, and Kalmijn (2013) stated that job stress negatively impacts employees' work engagement. Other similar studies have also shown a strong link between occupational stress and work engagement (Breaugh, 2021; Inoue, et al., 2014; Motamedzade, et al., 2019; Padula, et al., 2012; Simon, et al., 2015). Thus, the researchers suggest developing an innovative mindset among academic library personnel to help reduce the risk of occupational stress. Moreover, surveys and interventions could be very supportive in recognizing and managing the stress among the staff and facilitating enthusiasm, vigor, and dedication at

work. Also, good welfare packages and reward systems should be introduced for the librarians; and periodic recognition of dedicated workers should be made a priority.

The limitation of this research includes the smallness of the sample size, which calls for a larger sample to validate our findings further. Also, the quantitative approach to data collection, which was adopted in this study, ignored the usefulness of the qualitative research paradigm in the substantiation of respondents' occupational stress and work engagement. The research did not consider moderator and intervening variables that may impact the extent to which occupational stress would influence library personnel's work engagement. Further studies must consider the role of intervening variables to elaborate on the hypothesized influence and the proposed theoretical model.

## **CONCLUSION**

Library personnel with high occupational stress showed significantly low levels of engagement at work. In contrast, those with a low level of occupational stress showed significantly high levels of engagement at work. Therefore, the influence of occupational stress on library personnel's work engagement was statistically significant. One implication of the finding of this research is that it can guide the development of workplace interventions for stress management among librarians as it shows the degree of occupational stress experienced by both male and female library personnel and the association with their work engagement. Also, library users' access to library services could be enhanced through increased work engagement of library personnel; thus, those affected by stress must be assisted to increase their engagement level. University library policy can be revised to include activities that can help less engaged library personnel to manage stress and become more engaged at work. Rational emotive behavioral strategies can be adapted for managing the levels of work engagement and occupational stress in librarians.

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