Security Challenges in Universities: Shift-Work and Psychosocial Wellbeing among University Security Personnel

Adewole, Abiodun, A
Department Social Work
University of Ibadan
Ibadan.
E-Mail Address: adewole_biodun@yahoo.com
Phone: 08033440132

Abstract

Globally, there is a rising wave of insecurity and the universities are not spared from this problem. Terrorism and violent extremism have become the greatest security threats in most African countries. International terrorist organizations provide support to local groups to foment conflicts and enable organized crime rackets to destabilize the environment. Nigeria is not an exception as happenings have shown that university environments are no longer safe for the staff and students due to threatening security challenges. Criminal gangs known locally as bandits have increasingly targeted universities as soft targets for kidnapping and terror attacks. These waves of crimes have brought additional responsibilities for University authorities to provide adequate security particularly the security personnel as they have to work for 24 hour services to ensure safety of lives and property in the university community. The study examined the impact of shift-work on the psychosocial

wellbeing of security personnel in the University of Ibadan. Ibadan. Oyo State, Nigeria.

Descriptive survey design was used in the study while simple random sampling was used to select 445 security personnel in the University of Ibadan. Pearson Product Moment Correlation was used for data analysis. Ccorrelation matrix revealed correlation between the three Independent variables (physical, social, psychological wellbeing) and work shift. There was also relative contribution of (physical, social and psychological wellbeing) to work shift. Finally, Multiple Regression Analysis revealed joint contribution of physical, social, psychological wellbeing to work shift among security personnel of the University of Ibadan. Based on these findings, the study recommended that security unit should be well funded and equipped with modern technology such as the provision of CCTV at strategic locations. There should also be regular training particularly in intelligent gathering on kidnapping and terrorism; finally, there is need for security awareness for the university community at large.

Keyword*: Security Challenges/ Shift Work, Psychosocial Wellbeing, Universities' Security Personnel*

Introduction

Globally, there is a rising wave of insecurity. Terrorism and violent extremism have become the greatest security threats in most Africa countries. According to a report from the United States Institute of peace (2021),

international terror organizations collaborate with local groups in order to organize crimes to destabilize the environment. As a result, the country is now faced with an unprecedented wave of different security crises from banditry, kidnapping to extremist insurgencies and every part of the country is affected (Ekpohm, Edet, & Upong, 2020). The universities are not spared from this problem, and this trend has become a source concern. Recent happenings have shown that university environments are not so safe for the staff and students due to threatening security challenges. Criminal gangs known locally as bandits have increasingly targeted universities as soft targets for kidnapping attacks. In recent time, Nigeria as a nation and educational institutions had witnessed a myriad of security challenges (Oladipo, Awoyinfa, & Adefarakan, 2018). Apart from the traditional security challenges in Universities, such as cult-related activities, drug abuse/offences, illegal possession of fire arms by students, demonstrations, students' union crisis, room break-in, stealing, pilfering and sexual assaults. There has been an increase upsurge of organized crimes such as kidnapping, banditry and terrorism in many universities in Nigeria (Alemika, 2015).

Since the kidnapping attack on the Chibok Government Girls' Secondary School in April 2014 by Boko Haram terrorists, there has been an escalation of deadly attacks

in Nigerian Universities and many more educational institutions have been targets. Schools, colleges and universities are seen as 'soft' targets' where large numbers of people gather (Global Coalition to Protect Education from attack, GCPEA, 2021). This is because educational institutions are less protected, more vulnerable and have symbolic value. Furthermore, attacks on schools have high 'terror' value and increases the profile of militant groups as it usually create global attention for the terrorist.

According to the National President of Senior Staff Association of Nigeria Universities, (SANNU) Comrade Mohammed Haruna Ibrahim (Vanguard, May, 30, 2021) Nigerian University has been overwhelmed with different security challenges such as banditry, kidnapping, cultists' clashes, terrorism and other criminalities ravaging the country and pleaded with the government to allow local security in the universities to carry guns. In the same, the National President, Academic Staff Union of Universities (ASUU), Vanguard (Oct, 28, 2021) decried the high level of insecurity in Nigerian University, calling on all to work together to solve the problem. While the Rights Group Amnesty International said in a statement that education is "under attack" in Nigeria.

Security is the degree of protection against danger, damage, loss, and criminal activity (Oladipo et al., 2018). The main aim of security personnel in the University according Tari to (2004) is to ensure safety and security of staff, students and visitors, protecting the property and assets of the university, investigating and detecting crime, reducing incidence of reported crimes and the apprehension and prosecution of offenders. To ensure safety of life and property in the University, security personnel provide 24-hour service. Shift work, therefore, becomes inevitable. This is kind of practice that provide services for 24 hours of a day. The practice typically sees a work day divided into "shifts" which are set periods of time during the day or night when different groups of workers do the tasks required of them (Parkes, 1999).

There are numerous shift work schedules, and they may be permanent, intermittent, or rotating; Shifts can be organized as a stable/permanent time slot, rotating shift or an on-call shift. With stable shift work, a person is consistently on either a morning, afternoon or evening period of work. In rotating shift work, employees are required to work more than one shift, rotating from one period of time to another period of time. On-call shift occurs when a particular group of workers are called for their duties. It is special in the case of emergencies

particularly in a hospital where it is common. The most widespread type of shift work is organized in an eight hours stretch but depends on the employers' scheduled time, called the morning; evening and night shift (Pati et al., 2001).

In Nigeria, shift work is prevalent among factory workers and healthcare workers such as nurses and security personnel (Omoarukhe, 2012) as they have to provide uninterrupted and round-the-clock services. Apart from exposure to hash weather particularly at night during the harmattan and attacks from armed robbers, bandits and terrorists, security personnel who engage in shift work are at higher risk for various medical conditions as it disrupted the body clock, sleep, and family and social life. These disruptions often resulted in acute effects on mood and performance, which may lead to long-term health issues. One of the most common health problems in shift work is the shift work disorder (SWD), which is characterized by insomnia and excessive sleepiness. This is because of damages to the normal cycle of the body. Shift work disorder causes insomnia, fatigue, poor job performance and an increased likelihood of workplace accidents. In addition, SWD is associated with decreased productivity and increased economic costs (Wright, Bogan & Wyatt, 2013)

Other studies have shown that shift and particularly night shift negatively impact physical, social and psychological wellbeing, for example, it has been associated with cardiovascular disease (Torquati, Mielke, Brown & Kolbe-Alexander, 2018) cancers (Gan et al., 2015: Pahwa et al., 2018), metabolic disturbances (Gao, Gan, Jiang, Yu, Tang & Wanga, 2020) sleep disturbances (Fadeyi, Ayoka & Fawale, 2018: Pallesen, Bjorvatn, Magerøy, Saksvik, Waage & Moen, 2010), gastrointestinal disorders (Knutsson & Bøggild, 2010), and impaired reproductive health as well as impaired mental health (Torquati, Mielke, Brown, Burton & Kolbe-Alexander, 2019). Furthermore, shift work and night work have also been linked to negative organizational outcomes such as accidents (Fischer, Lombardi, Folkard, Willetts & Christiani, 2017) impaired cognitive efficiency (Di Muzio, Diella, Di Simone, Novelli, Alfonsi & Scarpelli, 2020) sick leave (Merkus, van Drongelen, Holte, Labriola, Lund & van Mechelen, 2012) low job satisfaction (Jamal,1981) and turnover and turnover intention (Flinkman, Laine, Leino-Kilpi, Hasselhorn & Salantera (2018). Although shift work is a normal system applied in various industries globally and nationally, however, it is not without its negative effects. Therefore, it is important to examine the impact on security personnel in order to enhance their performance.

Statement of the Problem

University security personnel are the police of the university community and so they are highly vulnerable to attacks from intruders (Ekpohm et al., 2020). They work 24 hours a day to ensure the safety of lives and property. They work in shift (Morning, Afternoon and Night) in order to ensure undisrupted security service. However, shift work has been associated negative medical consequences that affect physical, social and psychological wellbeing, for example, apart from accidents that occur in organisations where the system is practiced. Conditions such as sleep disturbances, fatigue, poor mental health and gastrointestinal disorders, and cardio vascular system have been shown to be associated with shift work. It has also been established that it indirectly contributed to negative social life such as family problems, stress and reduction in social support.

The condition may also negatively impact the worker's professional performance and put them at a higher risk of committing an error or being involved in a workplace accident. The combination of fatigue and impaired concentration puts people with shift work disorder at higher risk of being involved in an accident in the workplace. It's believed several high profile disasters have occurred due to work related fatigue are caused as a result of shift work system. As crimes such as kidnapping, banditry and terrorism are on the rise,

learning institutions, like universities, need to consider finding the most effective ways of boosting the welfare of their security personnel. Providing security for universities not only helps to create a conducive environment for the students to learn but also helps the workers to execute their functions. Although shift work is essential for security personnel who have to provide 24 hour services, however, the adverse effects need to be addressed in order to enhance the wellbeing the employees. Studies such as Alemika, (2015): Oladipo, et al., (2018) & Ekpohm. et al., (2020) have examined security challenges in Universities, however, the role of security personnel with particular attention to their wellbeing have been largely neglected. This study therefore examined how shift work affected the physical and psychosocial wellbeing of security personnel in the University of Ibadan.

Research Questions

Research Question 1: What is the correlation between physical, social, psychological wellbeing and work shift among security personnel of the University of Ibadan?

Research Question 2: To what extent does shift work predict the physical and psychosocial wellbeing of security personnel of the University of Ibadan?

Methodology
Research Design
The research design adopted for this study was descriptive survey of the correlational. The design was preferred as it will identify variables that have some sort of relationship to the extent that a change in one lead to change in the other. This design is appropriate for measuring complexities of the pattern of relationships that exists among measured variables.

Population, Sample and Sampling Technique
The target population for this was made up of male and female security personnel in the University of Ibadan. University of Ibadan was selected for the study because the university is an old establishment. It was established in 1948 and has a large number of security personnel. Four hundred and forty-five male and female participants were randomly selected from a total population of six hundred and twenty-five. Questionnaires were physically administered to them. Ethical issues on research such as voluntary participation, confidentiality were strictly adhered to.

Instrumentation
A standardised instrument, adapted from various sources, divided into four sections used to gather relevant data. Section A consisted of the bio-data which

sought demographic information of participants. Section B measured physical wellbeing, section C measured social wellbeing, section D measured psychological wellbeing and section D measured shift work

Physical wellbeing Scale (EIQ): The scale consists of items measuring physical wellbeing of the respondents. These items were selected from Reker and Wong (1984) perceive wellbeing scale. Reliability coefficient 0.89 was obtained for the instrument

Section D: Psychological Well-being Scale (FWS): The scale consists of items measuring psychological wellbeing. The items were drawn from perceive wellbeing scale developed by Reker & Wong (1984). Reliability coefficient 0.87 was obtained for the instrument

Section E: Social Well-being Scale (SWS): The scale contains items measuring social wellbeing. The items were isolated from social well-being scale developed by Spindly, Edward, Kingsly and Soper (2004). Reliability coefficient 0.80 was obtained for the instrument

Shift Work Scale (SWS): This was measured using Bergen Shift Work Questionnaire. The scale is a self-report tool that identifies insomnia symptoms' presence

and severity and distinguishes differences by shift and rest days/vacations. Reliability coefficient 0.87 was obtained for the instrument

Some of the original questions of the scales were altered in order to make the wording self-explanatory. All questions were structured along four (4) point Likert scale of SA- Strongly Agree, A-Agree, D-Disagree and SD-Strongly Disagree.

Reliability of Research Instrument: The test re-test reliability co-efficient was used for the study. The instruments were pre-tested on 30 security personnel in another University that were not included in the scope of the study to ascertain the reliability of the instrument. Reliability coefficient 0.89 was obtained for the instrument

Validity of Research Instrument: The measure has excellent face, content and constructs validity with items chosen to reflect a very wide range of issues relevant to the subject of research. The face and content validity was done by expert's judgment.

Analysis: The data collected was analysed using statistical packages for social science (SPSS) Simple percentage was used to analyse the demographic

characteristics of the respondents while Pearson Product Moment Correlation and regression analysis used to establish the relationship among the dependent variable and the independent variables.

Results

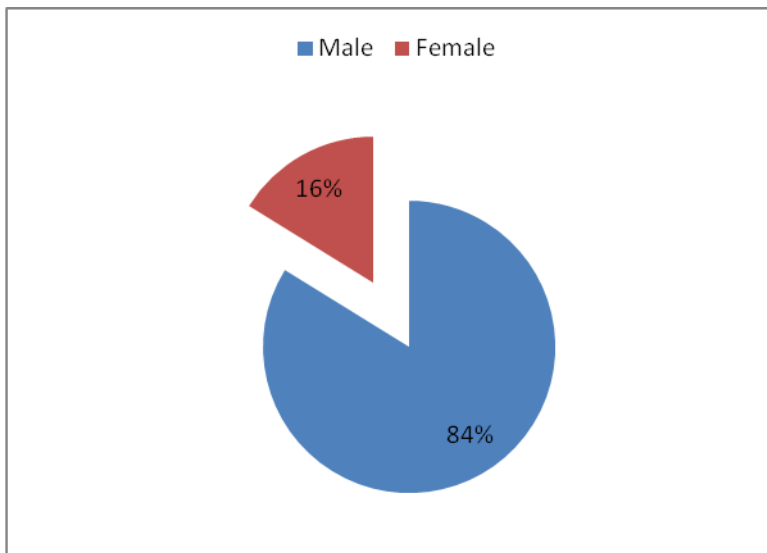### Socio-demographic information of the respondents

Figure 1: Gender

Figure 1 revealed the distribution of the respondents by gender; the majority 84.0% were male while the remaining 16.0% were female. This gender imbalance was due to the nature of the jobs which are traditionally male dominated.
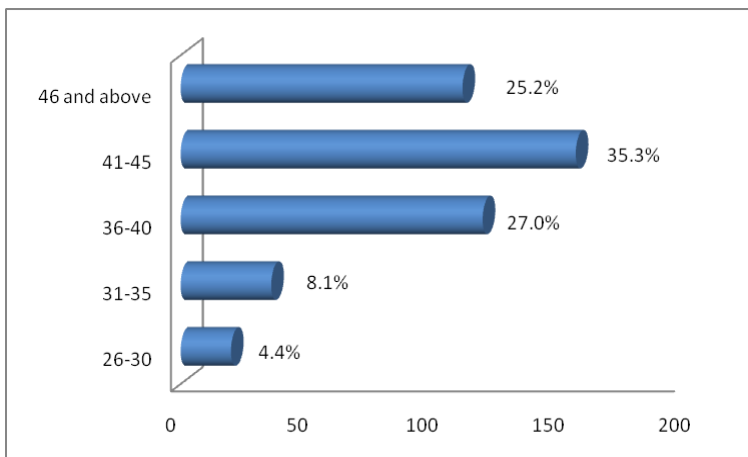
Figure 2: Age-group in years

Figure 2 indicates, 157(35.3%) of the respondents were within age range 41-45 years of age, 120(27.0%) of the respondents were within 41-45 years of age, 112(25.2%) of the respondents were 46 years and above. While 36 (8.1%) were within age range 31–35 years and 20(4.4%) of the respondents were within 26-30 years of age.
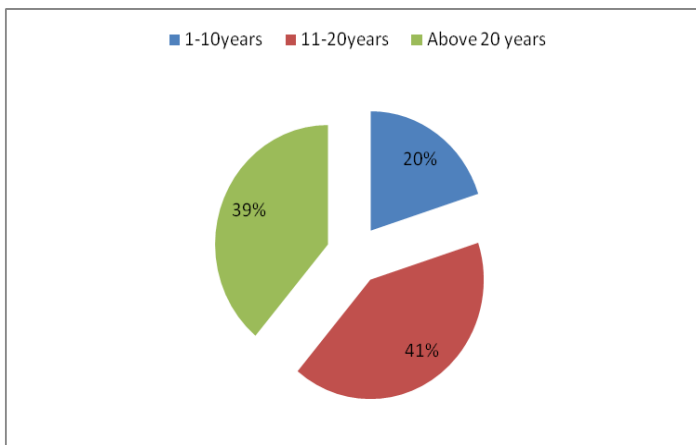
Figure 3: Length of Service in Current Job

Length of service in current job distribution of the respondents is highlighted in figure 3 as follows; majority 183(41.1%) of the respondents have had 11-20 years' length of service. This group is followed by the 173 (38.9%) who had spent above 20 years and 89(20.0%) spent 1-10 years.

Research Question 1: What is the correlation between physical, social, psychological wellbeing and work shift among security personnel of the University of Ibadan?

Table 1: (PPMC) Correlation Matrix showing significant relationship between physical, social, psychological wellbeing and work shift among security personnel (N= 445).

Variable	Work shift	Physical Well being	Social Well being	Psychological Wellbeing
Work Shift	1			
Physical Well being	.485**	1		
Social Well being	.354**	.546**	1	
Psychological Well being	.413**	.323**	-.091**	1
Mean	29.31	18.76	16.65	18.42
Standard Deviation	5.05	3.58	3.32	3.16

** Sig. at 0.05level

The correlation matrix result in table 1 revealed correlation coefficients between the three Independent variables (physical, social, psychological wellbeing) and work shift among security personnel. The result in the table showed physical wellbeing among security personnel is mostly correlated with work shift with correlation coefficient (r = 0.485). This showed physical wellbeing is perceived as the dominant of independent variables and is significantly positively correlated with work shift. Psychological wellbeing (r = 0.413) is also significant and positively correlated with work shift while social wellbeing with the least coefficient (r= 0.354) was also significant and positively correlated with work shift among security personnel. Hence work shift

among security personnel is associated with the three independent variables.

Research Question 2: To what extent does shift work predict the physical and psychosocial wellbeing among security personnel of the University of Ibadan?

Table 2a: Multiple Regression Analysis showing joint contribution of physical, social, psychological wellbeing to work shift among security personnel of the University of Ibadan.

Source of variation	Sum of squares	Df	Mean square	F	Sig
Regression	1092.837	3	364.279	39.275	.000
Residual	4090.081	441	9.275		
Total	6182.918	444			

Table 2b: Multiple Regression Analysis showing relative contribution of (physical, social and psychological wellbeing) to work shift among security personnel of University of Ibadan.

Model	Unstandardized Coefficient		Standardized coefficient		T	Sig
	B	Standard Error	B	Rank		
Constant	37.981	2.420			5.110	.000
Physical wellbeing	.679	.103	.372	1st	8.567	.001
Social wellbeing	.280	.057	.189	3rd	3.180	.007
Psychological wellbeing	.418	.179	.221	2nd	2.339	.012

R= .459, R²=.211, Adjusted R²= .208, Std. Error=2.617

Dependent variable: Work shift, Predictors: physical, social and psychological wellbeing

The result in table 1 revealed that physical, social and psychological wellbeing are significant joint predictors of work shift among security personnel of the University of Ibadan ($F_{(3, 441)}$ = 39.275, $p < 0.05$). Hence, the physical, social and psychological wellbeing jointly predict the work shift among security personnel at 0.05 level of significance.

The regression model reveals the relationship of each of the predictors in the prediction of the work shift among security personnel. Since the regression weight indicates the relative contribution of each of the predictors, the result in table 3 showed that physical wellbeing is the most significant predictor of work shift (β = 0.372, t =8.567, $p < 0.05$), followed by psychological wellbeing

($\beta = 0.221$, $t = 2.339$, $p < 0.05$) and social wellbeing ($\beta = 0.189$, $t = 3.180$, $p < 0.05$) respectively with coefficient of determination of ($R^2 = 0.208$) which means that any variation of wok shift is accounted for by 20.8% variation in a combination of the predictor variables (physical, social and psychological wellbeing). Since physical, social and psychological wellbeing are significant joint predictors of work shift among security personnel. This could be represented using the prediction equation (Model) below:

Work Shift = **a** + β_1 **X₁** + β_2 **X₂** + β_3 **X₃**

Work Shift = **37.981** + 0.372**X₁** + 0.189**X₂** + 0.221**X₃**

Where: **a** = constant, **X₁** = Physical wellbeing, **X₂** = Social wellbeing and **X₃** = Psychological wellbeing

Discussion of Findings

The study revealed that there was significant correlation between physical, social, psychological wellbeing and work shift among security personnel**.** Shift work has been associated with a number of adverse effects. Apart from accidents that occur in organisations where the system is practiced. Conditions such as sleep disturbances, fatigue, poor mental health, gastrointestinal disorders, accidents and injuries are some of the consequences of shift work. This finding is in agreement with Rose, Alphonse, Vincent & Kinangase (2013) that shift work has multiple adverse effects such as fatigue,

stress, eating disorder, broken marriages, relationship disharmony and changes in behaviour on security personnel.

Evidence from study conducted by Fadeyi, Ayoka & Fawale (2018) suggested that rotating shift work among workers is associated with increased level of health complaints and physiologic indices of stress as well as sleep impairment. The factors that predicted shift work disorder (SWD) were headache, muscle ache, lack of concentration, high salivary cortisol level, high diastolic blood pressure and low sleep efficiency. They study also found out that a higher proportion of the shift workers reported occupational accident and injuries compared with the non-shift workers, also more shift workers in reported some form of injury than the shift workers without; this points to the vulnerability of the employees with SWD. Workers who engage in shifts have poorer mental health than those who do not. The effect on their mental health was observed after one year of their rotating shift period.

Shift work indirectly contributed to negative social life such as family problems, reduced social support and stress. A study on social coordination of occupation, indicated that most Western industrialized countries encountered an increase in social relationship and family

problems, bringing disharmony and other related problems such as divorce out of hand (Lasen & Zemke, 2003). For example, disharmony within the couples who had conflicts because of one partner spending more time with the family members and friends than the other has been documented. The authors also found out that the weekly and daily organizations of individual and family activities were frequently governed by work schedules where family members and individuals find most of their time being alone. A study by Westfall-Lake & McBride, (1998) on security personnel found that 75% of employees experienced adverse social effects on their lifestyles after employment and being required to do shift work. This further supports the argument that shift work does impact negatively on the social lives of those involved with this system.

Conclusion

Security is a precondition for the development of human society. It is one of the basic needs of man. Therefore, the welfare of people who provide the service should be address. This study revealed that shift work affected the physical, psychosocial wellbeing of security personnel. Although shift work is essential for security personnel who have to provide 24 hour services. However, the adverse health implications for security personnel need to be recognized and addressed in order enhance their

wellbeing and improve productivity. These will boost employee morale and ensure effective protection of the university community.

Recommendations

Based on these findings, the study recommended that

- University authority should put in place appropriate policies and regulations to protect the safety, health and welfare of security personnel and ensure that it is properly implemented and monitored.
- Over time and other allowances of security personnel should be paid as and when due.
- There is need for training for the security personnel particularly in the new wave of crime of kidnapping and terrorism as well as intelligence gathering in order to enhance their professionalism
- The security unit in the University should be well funded and the University environment should be equipped with modern technology such as the provision of CCTV at strategic locations.
- Finally, there is need to create security awareness for the university community at large

References

Alemika, E, O. (2015). Security challenges and University system in Nigeria. Retrieved from https://irepos.unijos.edu.ng › jspui › bitstream.

Di Muzio M., Diella G., Di Simone E., Novelli L., Alfonsi V., Scarpelli S. (2020). Nurses and night shifts: poor sleep quality exacerbates psychomotor performance. *Front. Neuroscience.* 14:579938.

Ekpoh, U. I., Edet, A. O & Ukpong, N. N. (2020). Security Challenges in Universities: Implications for Safe School Environment. *Journal of Educational and Social Research*, *10*(6), 112. https://doi.org/10.36941/jesr-2020-0113.

Fadeyi, B.A., Ayoka, A.O., Fawale, M.B. (2018). Prevalence, predictors and effects of shift work sleep disorder among nurses in a Nigerian teaching hospital. *Sleep Science Practice* 2, 6. https://doi.org/10.1186/s41606-018-0027-x.

Fischer, D., Lombardi, D. A., Folkard, S., Willetts, J & Christiani, D. C. (2017). Updating the "risk index": a systematic review and meta-analysis of occupational injuries and work schedule characteristics. *Chronobiology International, 34*(10), 1423-1438.

Flinkman, M., Laine, M., Leino-Kilpi, H., Hasselhorn, H. M & Salantera, S. (2018). Explaining young registered finnish nurses' intention to leave the profession: a questionnaire survey. *International Journal of Nursing Studies.* 45, 727–739.

Gan, Y., Yang, C., Tong, X., Sun, H., Cong, Y., Yin, X., Li, L., Cao, S., Dong, X., Gong, Y., Shi, O., Deng, J., Bi, H., & Lu, Z. (2015). Shift work and diabetes mellitus: a meta-analysis of observational studies. *Occupational and environmental medicine*, *72*(1), 72–78. https://doi.org/10.1136/oemed-2014-102150

Gao, Y. Y., Gan, T., Jiang, L. L., Yu, L., Tang, D. M., Wanga, Y. H. (2020). Association between shift work and risk of type 2 diabetes mellitus: a systematic review and dose-response meta-analysis of observational studies. *Chronobiology International,* 37, 29–46.

Global Coalition to protect Education from attack News (GCPEA). 2021. Why Terrorists Attack Education. Retrieved from https://protectingeducation.org/news/why-terrorists-attack-education/

Jamal, M. (1981). Shift work related to job-attitudes, social participation and withdrawal behavior - a study of nurses and industrial workers. *Pers. Psychol.* 34, 535–547

Knutsson, A., and Bøggild, H. (2010). Gastrointestinal disorders among shift workers. *Scandinavia Journal Work Environment Health* 36, 85–95.

Larson, E. A., & Zemke, R. (2003). Shaping the Temporal Patterns of our Lives: The Social Coordination of Occupation. *Journal of Occupational Science, 10*(2), 80–89. https://doi.org/10.1080/14427591.2003.9686514

Merkus, S. L., van Drongelen, A., Holte, K. A., Labriola, M., Lund, T., van Mechelen, W. (2012). The association between shift work and sick leave: a systematic review. *Occup. Environ. Med.* 69, 701–712

Oladipo, S, A., Awoyinfa, J, O & Adefarakan, O, S. (2018). Institutional Critical Factors in University Personnel Security. *International Journal of Innovative Business Strategies*, 4, 2, 219-227

Omoarukhe O. (2012). Management of Shift Work in Nigeria and its Implications for LabourManagement Relations.https://greenthesis. wordpress.com/2012/11/22/management-of-shift-work-in-nigeria-and-its-implications-for-labour-management-relations/

Pahwa, M., Labreche, F., and Demers, P. A. (2018). Night shift work and breast cancer risk: what do the meta-analyses tell us? *Scandinavia Journal Work Environment Health*, 44, 432–435.

Pallesen, S., Bjorvatn, B., Magerøy, N., Saksvik, I. B., Waage, S & Moen, B. E. (2010). Measures to counteract the negative effects of night work. *Scandinavia Journal Work Environment Health*, 36, 109–120

Parkes K. R. (1999). Shiftwork, job type, and the work environment as joint predictors of health-related outcomes. *Journal of occupational health psychology*, *4*(3), 256–268. https://doi.org/10.1037//1076-8998.4.3.256

Pati, A. K., Chandrawanshi, A., & Reinberg, A. (2001). Shift work: consequences and management. *Current science*, 32-52.

Reker, G. T., & Wong, P. T. (1984). Psychological and physical well-being in the elderly: The Perceived Well-Being Scale (PWB). *Canadian Journal on Aging,* *3*(1), 23–32. https://doi.org/10.1017/S0714980800006437

Rose. K., Alphonse Z., Vincent S & Kinangase Pokasui, (2013). Impact of shift work amongst security guards in Madang Contemporary PNG Studies*: DWU Research Journal,* 18.

Tari, B. N. (2004). A perspective into students' politics in Nigerian Universities: A review. *Journal of Curriculum and Instruction*, 1(1), 79-87.

Torquati L, Mielke GI, Brown WJ & Kolbe-Alexander, T. (2018). Shift work and the risk of cardiovascular disease. A systematic review and meta-analysis including dose-response relationship. *Scandinavia Journal Work Environment Health*. 1;44(3):229-238.

Torquati, L., Mielke, G. I., Brown, W. J., Burton, N. W & Kolbe-Alexander, T. L. (2019). Shift work and poor mental health: a meta-analysis of longitudinal studies. *American Journal of Public Health* 109, E13–E20

United States Institute of peace. (2021). Security Challenges in Africa: 2021 and Beyond: Countering Violent Extremism by Refocusing on Communities. Retrieved from https://www.usip.org/events/security-challenges-africa-2021-and-beyond

Vanguard. (Oct, 28, 2021). Academic Staff Union of Universities (ASSU) President laments Nigeria's security challenges. Retrieved from https://www.vanguardngr.com/2021/10/asuu-president-laments-nigerias-security-challenges/

Vanguard (May 30, 2021). Senior Staff Association of Nigeria Universities President, (SANNU). Insecurity: We're not safe again in our institutions, varsity workers cry out. Retrieved from https://www.vanguardngr.com/2021/05/insecurit

y-were-not-safe-again-in-our-institutions-varsity-workers-cry-out.

Westfall-Lake, P., & McBride, G.N. (1998). Shiftwork Safety and Performance: A Manual for Managers and Trainers (1st ed.). CRC Press. https://doi.org/10.1201/9781003075684

Wright KP Jr, Bogan RK & Wyatt JK. (2013). Shift work and the assessment and management of shift work disorder (SWD). *Sleep Medicine Review.* 2013 Feb;17(1):41-54.