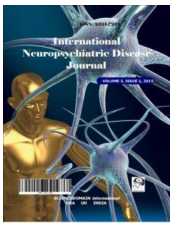

International Neuropsychiatric Disease Journal

11(2): 1-11, 2018; Article no.INDJ.39640
ISSN: 2321-7235, NLM ID: 101632319

Burnout Syndrome and Anxiety Disorders among Hospital Nurses in a Tertiary Health Center in Nigeria

Olajide Abayomi[1], Babalola Emmanuel[1*], Amoo Gbolagade[1], Onifade Peter[1] and Olajide Kofoworola[1]

[1]Neuropsychaitric Hospital, Aro, Abeokuta, Ogun State, Nigeria.

Authors' contributions

This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/INDJ/2018/39640
Editor(s):
(1) Zhefeng Guo, Department of Neurology, University of California, Los Angeles, USA.
Reviewers:
(1) Ibrahim El-Zraigat, The University of Jordan, Jordan.
(2) Mary V. Seeman, University of Toronto, Canada.
Complete Peer review History: http://www.sciencedomain.org/review-history/24047

Original Research Article

Received 25th January 2018
Accepted 30th March 2018
Published 7th April 2018

ABSTRACT

Most studies on mental health at workplaces have focused mainly on depression as a frequent cause of occupational disability among nurses. This study aimed at determining the prevalence of burnout syndrome and anxiety disorders and their associated psychosocial factors among nurses. The study was conducted among nurses at the Federal Medical Centre Abeokuta, southwestern Nigeria. One hundred and seventy-five nurses were assessed in two stages. The first stage involved using a Socio-demographic Questionnaire, the 22-item Maslach Burnout Inventory (MBI) and GHQ-12. The second stage involved interviewing nurses with Structured Clinical Interview Schedule for DSM IV Axis I Disorder (SCID) Anxiety module. The prevalence rates of burnout syndrome subscales are 51.3% for emotional exhaustion, 84.7% for depersonalization, and 24.5% for personal achievement while that for GAD was 4%. Socio-demographic and work-related variables significantly associated with burnout syndromes were younger age (χ^2=7.24, p=0.027), low educational achievement (χ^2=8.01, p=0.005), stressful job perception (χ^2=7.75, p=0.005), junior nursing cadre (χ^2=9.18, p=0.01), and having a great deal of involvement in report writing. These findings draw attention to the need for holistic approach to the

**Corresponding author: E-mail: phemmo99@yahoo.com;*

management of burnout and GAD among health care professionals in addition to developing effective prevention strategies to protect their mental well-being and improve their effectiveness.

Keywords: Burnout syndrome; anxiety disorders; nurses; Nigeria.

1. INTRODUCTION

Burnout is a chronic response to prolonged emotional stress at the workplace which are manifested by emotional or physical exhaustion, depersonalization and reduced personal achievement [1,2]. Emotional exhaustion refers to feelings of being depleted of one's emotional resources, depersonalization is a negative and cynical attitude and behavior toward clients while reduced personal achievement is the self-perception of a decline in one's competence and self-efficiency [3]. Burnout is a psychological concept used to express a syndrome in which an individual who works in a high demand job suddenly becomes disillusioned, emotionally exhausted and disinterested in her work. Burnout is viewed as the exhaustion of physical and emotional strength as a result of prolonged stress or frustration at the work place [4].

In occupational setting, burnout may be noticed by behavioral changes such as withdrawal from responsibilities, isolation, procrastination, skipping of work, lateness, using of alcohol or other psychoactive substances to medicate symptoms. Various consequences of burnout have been reported, these include; low productivity and increase in absenteeism and health care cost [5,6]. No one is immune against job burnout irrespective of age, gender, socioeconomic class and occupational field of practice. Burnout has been studied amongst occupations especially human services professionals requiring large amount of contact with people in need of aids. However, there are documented evidence that some occupations are more predisposed to burn out than the others. The most predisposed are the human service providers such as health professionals (doctors, nurses, dentist and social workers), teachers, police officers, traffic controllers, journalists and other related professionals. Amongst the health profession, nurses are the group most at risk of burnout [7,8].

A nurse, who is burnt out, may experience emotional exhaustion that may affect her effectiveness at job [8]. She may show anger and frustrations towards the patient she is supposed to care for. Factors which may lead to burnout among nurses includes low acknowledgment of type of job performed, lack of therapeutic success, inability to help acutely distressed patients and lack observable progress with patients [9]. Working in the healthcare sector especially the work description of nurse entails intensive work both physically and psychologically. The round-the-clock responsibilities, saving life, preventing death and lack of tolerance for error can exert intense psychological and physical pressures. The long hours of nurses job, the workload, the frequent contact with both acutely and chronically ill patients and high expectations at the workplace are likely factors that predispose them to burnout relative to others.

In the last few decades, the hospitals have been in the limelight due to dwindling quality of healthcare services and rising waves of litigations against health professionals [10]. In Nigeria, the failure of primary health care system and the poor funding of secondary healthcare facilities have contributed immensely to the workload at most tertiary health institution. The health care in Nigeria is currently strained with inadequate health care professionals, inadequate health care facilities for providing services and poor remuneration to the workers with increasing threats to cut down the size of the inadequate workforce to adjust to an economic meltdown.

Considering the value of psychological wellness of health caregivers in providing effective and efficient service to the community and the dearth of information concerning stress, anxiety and productivity in the health work place, the assessment of these parameters becomes not only relevant but a logical imperative. Currently, there is a lack of information regarding stress-related problems such as burnout syndrome and anxiety disorder amongst nurses in Nigeria, thus research such as this aimed at determining the prevalence and understanding the socio-demographic and work-related variables associated with burnout syndrome as well as anxiety amongst nurses. This will help gain more understanding of these disorders in our environment and to provide more insight

into the management of this workplace health hazard.

The study aims to determine the prevalence of burnout and generalized anxiety disorder among nurses in Federal Medical Centre, Abeokuta, Southwestern Nigeria and to identify the socio-demographic and work-related factors associated with these disorders.

2. MATERIALS AND METHODS

2.1 Location and Setting

This study was carried out among nurses in Federal Medical Centre, Abeokuta, in the South-Western geopolitical zone of the Nigeria. It is a tertiary health care facility with specialty clinics and consultations in various fields such as Dentistry, Pediatrics, Family Medicine, Obstetrics and Gynecology, Internal Medicine, to mention but a few. Federal Medical Centre Abeokuta has about 2160 workers (clinical and non-clinical) widely spread over various departments such as clinical services, administrative, accounting, works and maintenance, laundry etc. Nursing profession is under the directorate of clinical services

2.2 Study Design and Population

The study was a 2-staged, cross sectional descriptive study on burnout syndrome and generalized anxiety disorder. The first stage involved administration of sociodemographic and work related questionnaires, 22- item Maslach Burnout Inventory and 12-item General Health Questionnaire to all eligible and consenting nurses. The second stage involved interview of nurses with probable psychiatric morbidity as evident by GHQ -12 scores of three (3) and above and Structured Clinical Interview Schedule for DSM IV Axis I Disorder (Anxiety Module) to diagnose Generalized Anxiety Disorder. The study population was the nurses in Federal Medical Centre. The total staff strength of Federal Medical Centre Abeokuta as at the time of the study was about 2160. There were 225 nurses constituting about 10% of the total number of staff.

2.3 Sample Selection

One hundred and seventy five nurses were selected using simple random sampling method. The respondents were selected using the nurses register in the hospital and randomly generated computer numbers.

2.4 Study Instruments

The instruments used for the data collection were socio demographic variable questionnaire, General Health Questionnaire 12 (GHQ-12), Maslach Burnout Inventory (MBI) and Structured Clinical Interview for Diagnoses Axis 1. DSM IV Axis I Disorder (SCID).

The sociodemographic questionnaire was designed by the researcher to obtain information on socio-demographic variables and related variables of the respondents. It contained questions such as gender, age, religion, marital status and educational qualification. It also explored occupational characteristics like post/rank, shift or non-shift duties, sections or clinical units, number of years spent on the job and annual leave practices etc. The questionnaires were self-administered by the respondents.

The GHQ was developed by David Goldberg [11] as a self-administered screening instrument for the detection of psychological morbidity in primary care, general medical practice or community surveys. It is used for the screening of non-psychotic disorders. The questionnaire focused on two major areas: Inability to carry out normal functions; and the appearance of a new distressing phenomenon. The GHQ had been found useful as a community research tool in screening for psychiatric symptoms common in general medical setting. It however does not specify the exact nature of the mental disorder [12]. The GHQ had been used by various Nigerian investigators [13]. It focused on the client's ability to carry out "normal" functions and the appearance of new disturbing phenomena; it measures the subject's feeling state over the past few weeks. The conventional cut- off point of three (3) and above was used in this study to categorize into probable psychiatric morbidity or caseness and no psychiatric morbidity or no caseness.

The Mashlach Burnout Inventory is a 22-item questionnaire, generally considered the goal standard measure of burnout, developed by [14]. It is the best used and researched of all the burnout inventories. The MBI has been documented to be widely used and accepted in the United States of America, United Kingdom, European Union countries, Latin America and

Asia [15]. The MBI has also been translated into various languages including French, German, Dutch, Spanish, Italian and Japanese [16]. MBI had been validated and used in Nigeria [17].

The MBI evaluates three domains of burnout: Emotional exhaustion, consisting of nine items measuring the reduced energy and job enthusiasm, emotional and cognitive distance from the job (Questions 1,2,3,6,8,13,14,16,20). Depersonalization, consisting of five items measuring cynicism, lack of engagement and distancing from the patients, treatment of patients as unfeeling objects (Questions 5,10,11,15,22) and Personal accomplishment, consisting of eight items measuring perception of having an influence on others, working well with others and dealing well with problems (Questions 4, 7, 9, 12, 17, 18, 19, 21). Due to its reliability, validity, brevity and ease of administration, the MBI is considered a useful instrument for measuring burnout among Nigerians.

The Structured Clinical Interview Schedule For Axis I DSM IV Disorder (SCID)-Anxiety is a semi-structured clinician administered interview schedule for making Axis I diagnoses according to the fourth edition of Diagnostic and Statistical Manual (DSM IV) American Psychiatric Association [18]. The SCID is broken down into separate modules corresponding to categories of diagnoses. It includes an overview that focuses on the respondents' main psychiatric problems before the interview modules that cover mania, depression, psychosis, substance abuse disorder, somatization disorders, eating disorders and adjustment disorder [19]. Current (past month) and lifetime occurrence of disorders can be recorded. The anxiety module was used in the second stage of the study. Respondents gave written informed consent. Ethical approval for the study was obtained from the Research Ethics Committee of Federal Medical Center Abeokuta.

2.5 Data Collection and Analysis

Data analysis was done using the Statistical Package for Social Sciences (SPSS) program version 22 [20]. Results were presented in frequency tables for descriptive statistics and cross tabulation to show the relationship between the categorical variables. The relationships between burnout syndrome subscales (Emotional Exhaustion, Depersonalization and Personal achievement) and some sociodemographic characteristics such as age group, marital status, family type, and educational level, number of children, post-employment education and duration of nursing education were analyzed for association. The level of significance was set at $p < 0.05$. The Odd Ratio (OR) and 95% Confidence Interval were calculated.

3. RESULTS

Out of the 175 nurses randomly selected to participate in the study, 150 (85.7%) completed their questionnaires which was analyzed. One hundred and forty five respondents (96.7%) were female while 5(3.3%) were male. The age range was 26 – 58 years with a mean and S.D of 38.9±7.15. Most of the participants were married (93.3%), predominantly of Christian religion (88%) and from monogamous family settings (71.4%). A relatively high percentage of respondents (82.7%) did not participate in any recreational activities (Table 1). As presented in Table 2, fifty one (34%) were currently working at the medical unit of the hospital, 41 (27.3%) at the surgical unit while 43 (28.7%) were at the emergency unit. One hundred and twenty four (82.7%) of the nurses had not rotated through other units of the hospital. The Accident and Emergency unit was considered the most stressful unit by about half of the respondents (46%). One hundred and forty three nurses (95.3%) perceived their work as being stressful. One hundred and two participants (68%) had not received any form of educational training following their employment.

The prevalence of burn out syndrome among respondents is 51.3% for Emotional Exhaustion subscale, while 84.7% and 24.0% were positive on Depersonalization and Personal Achievement subscales respectively (Table 3). The prevalence of GAD diagnosed using SCID was 4%. None of the socio demographic characteristics were significantly associated with emotional exhaustion and personal achievement subscales of burnout syndrome. Factors associated with depersonalization are presented in Table 3. Depersonalization was associated with younger age (χ^2=7.24, p=0.027), low educational achievement (χ^2=8.01, p=0.005), growing up in monogamous family setting (χ^2=7.33, p=0.026) and smaller family size (χ^2 =4.55, p= 0.033). Other variables associated with depersonalization include; current department, cadre and alcohol intake (Table 6) No significant associations were found between GAD and any socio demographic variable (Table 4).

Table 1. Socio-demographic characteristics of respondents

Characteristics	n (%)
Age group	
26-35	52(34.7)
36-45	69(46.0)
>45	29(19.3)
Gender	
Male	5(3.3)
Marital status	
Never Married	10(6.7)
Married	140(93.3)
Religion	
Christian	132(88.0)
Muslim	18(12.0)
Family type	
Monogamous	107(71.3)
Polygamous	43(28.7)
Educational level	
Non-University	103(68.7)
University	47(31.3)
Number of children	
None	11(7.3)
0-3	137(91.3)
>3	2(1.4)
Recreational activities	
Yes	28(19.5)
No	122(80.5)

Table 5 shows the relationship between work related variable and emotional exhaustion subscale of burnout syndrome. Significantly higher proportion of nurses involved in a great deal of report writing as part of their work schedule had emotional exhaustion (χ^2 =7.41, p= 0.006). Other factors significantly associated with emotional exhaustion are spousal complaints about nature of job and perceiving job as been stressful. Depersonalization is significantly associated with working in surgical/obstetric unit (χ^2 =12.54, p= 0.014), being absent from work in the past 6 months (χ^2 =4.16, p= 0.041) and current alcohol intake (χ^2 =7.95, p= 0.005) Table 5.

4. DISCUSSION

The respondents' mean age of 38.9 and age range 26-59 reflected the employment age in the Nigerian Federal Civil Service. The mean age however was slightly higher when compared to similar research works among nurses by Coker, [21] and Pindar, [22]. In this study, there were more females than males which is in line with the common knowledge that nursing profession is predominantly feminine [23]. Since the time of Florence Nightingale, nursing has been stereotyped as a female-dominated profession throughout the world [24,25]. This study also showed a high proportion of married respondents, (90.7%). This is possible because of the high proportion of respondents within the age bracket of 26- 35 years which Erickson referred to as the period of intimacy versus isolation. The age group also corresponds to marriageable age within the context of the Nigerian culture [26]. Majority of the respondents were Christians (88%) and from monogamous family setting. This is consistent with the religious and family orientation of the people in Southwestern zone, the study area [27]. A modest proportion of the nurses (54%) had post basic in addition to general nursing education. This is in line with the hospital policy of government establishments regarding employment of nurses possessing a minimum of 2 certificates. A larger proportion of the nurses (91.3%) had less than 5 children which are in tandem with the National Population Policy in Nigeria [28] on population control through birth regulation. Less than 20% of the respondents engaged in recreational activities. This could be as a result of lack of basic recreational facilities in most public institutions in Nigeria including hospitals [29].

Only about one third of the nurses seized the opportunity of educational training after their employment. This may be as a result of tight work schedule and the demands of family life including caring for their husband and children. The Accident and Emergency unit still remained the most stressful unit in line with the report of Poncet and colleagues [30]. This could be explained by the acute nature of the presentation of patients at the emergency unit and mostly unfavorable outcome in most hospitals due to lack of modern health care facilities for diagnoses and treatment. The perception of nursing job as one of the most stressful professions among the human service professionals especially in the health care industry was confirmed in this study. Majority of nurses in this study had a great deal of involvement in service delivery to patient, writing reports, attending to patients complaints, teaching of nursing students, supervising of nursing services and planning of nurses work plan. It seems administrative duties and attendance at meeting was not part of the core duties of nurses.

Table 2. Work related characteristics of the respondents

Work related variables	Frequency (%)
Duration of post-secondary school education	
1-5yrs	100(66.7)
6-10yrs	20(13.3)
>10yrs	30(20.0)
Current rank	
CNO/PNO	45(30.0)
SNO	37(24.7)
NO	68(45.3)
Current department	
Medical	51(34.0)
Surgical	41(27.3)
Emergency	43(28.7)
Others	15(10.0)
Number of years in current post	
<5yrs	138(92.0)
5-10yrs	5(3.3)
>10yrs	7(4.7)
Rotation through other units	
Yes	124(82.7)
No	26(4.7)
Post-employment education/in-service training	
Yes	48(32)
No	102(68)
Most stressful unit	
Medical	11(13.7)
Surgical	39(26.0)
Emergency	69(46.0)
Others	31(20.7)
Nature of work	
Shift + Admin	35(23.3)
Shift + Non-Admin	87(58.0)
Non-Shift + Admin	18(12.0)
Non-Shift + Non-Admin	10(6.7)
Job perception	
Not Stressful	7(4.7)
Very Stressful	143(95.3)
Spouses complaint	
No Complaint	36(24.0)
Frequently	114(76.0)
Health problems	
Yes	52(34.7)
No	98(65.3)
Absent from work in the last 6 months	
Yes	30(20)
No	120(80)
Alcohol intake	
Yes	5(3.3)
No	145(96.7)
Smoking	
Yes	0(0)
No	150(100)

About half of the respondents had burnout on the Emotional exhaustion subscale. This was relatively lower than the finding by Uwakwe [31] who reported rate of 72% among nurses in Nnewi, South eastern Nigeria. It was also lower than the finding of 71% of Silva and Menezes [32] in Brazil. The rate was similar to that reported by Tourangeau & Giovannetti [33] in a bigger study in Canada and in Poland [34] except for the domain of Personal achievement where the study respondents scored lower values which suggests that the Canadian and Poland nurses felt more competent and successful than the nurses in this study and by extension their colleagues in other parts of the world especially in low-income countries. This difference in prevalence may be due to the variation in the population being studied and the nature of work of nurses in the setting of the studies. A higher proportion (84.7%) of respondents had burnout on the Depersonalization subscale. This rate was far higher than the findings of 43% by Thorsen [35] in Malawi and 29.2% by Lasebikan [36] in a study conducted among nurses in a setting similar to that of this study. Almost a quarter (24%) of the respondent had burnout on the personal achievement subscale.

Findings from our study show that both female and male nurses are experiencing high level of burnout. Although there is no significant difference in the level of emotional exhaustion and depersonalization between both sexes, female nurses experienced reduced personal accomplishment than their male counterparts. This result is consistent with earlier studies [37, 38]. Some others studies have reported the converse of this finding [39, 40]. High level of emotional exhaustion experienced by nurses is generally attributed to the nature of their job in terms of patient's behavior as well as the interaction of the superiors with the nurses. This may be due to the routine job description prescribed for this category of nurses and bullying by senior colleagues which is fast becoming a common practice [41].

Our study showed an association between age and years of experience with Emotional Exhaustion. It is possible this observation is related to the very fact that with age one's tolerance for demanding situations and stressful work environment decreases. Nurses may be more motivated in the beginning of their career but in due time their eagerness to continue as an ordinary nurse may decline as they do not see coherence between their needs and the stresses which they experience.

Significantly higher proportion of the nurses with post-employment education experienced Burnout probably because of the emphasis on need to acquire higher education which most often is combined with clinical duties. The increasing rate

of enrolment for first degree in the universities is in tandem with the new policy of Nursing and Midwifery Council of Nigeria concerning professionalization of nursing education in a bid to improve standard of care. Nurses with higher rank had the lowest rate of burnout compared to their junior in the cadre/rank.

This may be explained by the nature of their work which is mainly administrative and supervisory thus having less physical contact with patients. Although lower rates of burnout was observed among nurses who engaged in the habit of drinking alcohol, it was possible that they were using alcohol to mask or "medicate" the features of burnout.

The prevalence of generalized anxiety disorder in this study was 4.0%. According to Sadock & Sadock, [42] this result is in keeping with one year prevalence of Generalized Anxiety Disorder of 3 to 8%. It is close to the rate reported by the Nigerian Institute of Mental Health (NIMH) which was 5.7% for lifetime and 3.1% for 12- month [43]. Gureje [44] reported lifetime prevalence of 5.7% and 12 month prevalence of 4.1% for GAD. In addition Somoye [45] observed a prevalence of 5.6% among bank workers. The prevalence of psychiatric morbidity reported in this study is high and is close to that of burnout in the areas of emotional exhaustion and reduced personal accomplishment illustrating that although burnout is not a recognized clinical psychiatric or psychological disorder, there are some similar features between burnout and diagnosable conditions such as depression, anxiety disorders or mood disorders.

Table 3. Prevalence of burnout syndrome

	Emotional Exhaustion n(%)	Depersonalization (D) n(%)	Personal Achievement (PA) n(%)
Positive	77(51.3)	127(84.7)	36(24.5)
Negative	73(48.7)	23(15.3)	114(76.0)
Total	150(100)	150(100)	150(100)

Table 4. Socio-demographic correlates of depersonalization in nurses.

Variables	Depersonalization		CHI square χ^2	D.F.	P value
	Positive	Negative			
Age group					
>45	21(72.4%)	8(27.6%)	7.243	2	0.027
36-45	57(82.6%)	12(17.4%)			
26-35	49(94.2%)	3(5.8%)			
Gender					
Male	4(80.0%)	1(20.0%)	0.081	1	0.776
Female	123(84.8%)	22(15.2%)			
Marital status					
Never married	4(80.0%)	1(20.0%)	0.870	1	0.768
Married	123(84.8%)	22(15.2%)			
Family type					
Monogamous	93(87.7%)	14(12.3%)	7.328	1	0.026
Polygamous	34(79.1%)	9(20.9%)			
Educational level					
Non-Univ Degree	93(90.3%)	10(9.7%)	8.011	1	0.005
University degree	34(72.3%)	13(27.7%)			
Number of children					
0-3	13(100.0%)	0(0.0%)			
>3	114(83.2%)	23(16.8%)	4.546	1	0.033
Post-employment education					
Yes	35(72.9%)	13(27.1%)	7.507	1	0.006
No	92(90.2%)	10(9.8%)			
Duration of Post-secondary sch. education					
1-5years	3 (100.0%)	0(0.0%)	0.554	1	0.457
>5years	124 (84.4%)	23(15.6%)			

Table 5. Work related correlates of emotional exhaustion

Variables	Emotional Exhaustion Positive	Negative	Chi Square χ^2	d.f	P – Value
Current rank					
CNO/PNO	18(40.0%)	27(60.0%)			
SNO	20(54.1%)	17(45.9%)	3.410	2	0.182
NO	39(57.4%)	29(42.6%)			
Current department					
Medical	24(46.0%)	27(54.0%)			
Surgical	27(65.9%)	14(34.1%)	6.149	3	0.188
Emergency	6(40.0%)	9(60.0%)			
Others	20(46.5%)	23(53.6%)			
Stressful rotation/unit					
Medical	8(66.7%)	4(33.3.%)			
Surgical	18(47.4%)	20(52.6%)	7.559	3	0.182
Emergency	39(58.2%)	28(41.8%)			
Others	1(20.0%)	4(80.0%)			
Supervision of service delivery					
Just a little	20(54.1%)	17(45.9%)	0.146	1	0.703
A great deal	57(50.4%)	11(49.6%)			
Report writing					
Just a little	15(34.1%)	29(65.9%)	7.410	1	0.006
A great deal	62(58.5%)	44(41.5%)			
Absence from work in the last 6 months					
Yes	18(60.0%)	12(40.0%)	1.127	1	0.288
No	59(49.2%)	61(50.8%)			
Spouses complaint					
Not at all	6(60.0%)	4(40.0%)	14.747	1	0.002
Frequently	71(50.7%)	69(49.3%)			
Alcohol intake					
Yes	2(40.0%)	3(60.0%)	0.266	1	0.606
No	75(51.7%)	70(48.3%)			
Job perception					
Not stressful	2(20.0%)	5(80.0%)			
Very stressful	77(53.8%)	66(46.2%)	7.745	1	0.005

CNO = Chief Nursing Officer, PNO = Principal Nursing Officer, SNO = Senior Nursing Officer, NO = Nursing Officer

Table 6. Work related variables of depersonalization

Variables	Depersonalization		Chi Square χ^2	d.f	P -Value
	Positive	Negative			
Current rank					
CNO/PNO	32(71.1%)	13(28.9%)			
SNO	34(91.9%)	3(8.1%)	9.187	2	0.010
NO	61(89.7%)	7(10.3%)			
Current department					
Medical	40(80.0%)	10(20.0%)			
Surgical	41(100%)	0(0%)			
Emergency	10(66.7%)	5(33.3%)	12.543	3	0.014
Others	35(81.4%)	8(18.6%)			
Stressful rotation/unit					
Medical	10(83.3%)	2(16.7%)			
Surgical	30(78.9%)	8(21.1%)			
Emergency	61(91.0%)	6(9%)	6.083	3	0.298
Others	3(60%)	2(40.0%)			
Supervision of service delivery					
Just a little	31(83.8%)	6(16.2%)			
A great deal	96(85.0%)	17(15.0%)	0.029	1	0.864
Report writing					
Just a little	34(77.3%)	10(22.7%)			
A great deal	93(87.7%)	13(12.3%)	2.622	1	0.105

Variables	Depersonalization		Chi Square χ^2	d.f	P -Value
	Positive	Negative			
Absence from work in the last 6 months					
Yes	29(96.7%)	1(3.3%)	4.160	1	0.041
No	98(81.7%)	22(18.3%)			
Spouses complaint					
Not at all	9(90.0%)	1(10.0%)			
Frequently	118(84.3%)	22(15.7%)	0.235	1	0.628
Alcohol intake					
Yes	2(40.0%)	3(60.0%)	7.949	1	0.005
No	125(86.2%)	20(13.8%)			
Job perception					
Not stressful	5(71.4%)	2(28.6%)			
Very stressful	122(85.3%)	21(14.7%)	0.991	1	0.319

CNO = Chief Nursing Officer, PNO = Principal Nursing Officer, SNO = Senior Nursing Officer, NO = Nursing Officer

This study has some limitations. Due to the cross-sectional design, it was not possible to establish direction of cause-effect relationship between these disorders and their associated socio demographic and work related variables. This study was conducted in only one geopolitical zone among the several regions in Nigeria; as such it is difficult to generalize the findings to all hospitals in the country.

The main strength of this study lies in its use of well standardized internationally accepted semi-structured instruments, validated in our environment which makes its finding easily comparable with studies in other parts of the world. Also the overall response rate appears to be an adequate representation of the population under study. Lastly, the study investigated specific psychiatric disorders among key professionals within the health care industry which have not been well studied in Nigeria.

5. RECOMMENDATIONS

It is recommended that longitudinal studies should be carried out to investigate the mediating pathways, causality and effects between socio demographic & work related characteristics and these disorders among nurses. There is also a need for more intervention studies to test whether modifying the work-related variables/stressors will lead to better mental health and work out in the working populations.

Future studies should be large scaled, multi-centered and multi leveled so as to reduce the effect of the biases in this study. These findings call for high index of suspicion, early diagnosis and prevention strategies for these disorders among nurses and other health professionals in order to protect their well-being and that of the health care industry. Finally, there is need to create awareness of the disorder among health workers and to provide stress management services to healthcare professional with emphasis on stress prevention and creating salutary hospital environment.

6. CONCLUSION

This study show the magnitude of specific psychiatric disorders among nurses at the Tertiary Medical Centre in the face of long standing challenges in health care industry. The study found higher levels of burnout and generalized anxiety disorder among these nurses. There were significant association between these disorders and some socio demographic and work related variables among the respondents

The identified risk factors for burnout were age 26-35 year, non-university nursing education and being involve in post-employment education. Work and health related variables associated with this Burn out syndrome included lower rank in nursing, report writing, spouses' complaints and stressful job perception. Generalized Anxiety Disorder was however not associated with any of these variables to a significant level.

Though circumscribed in scope and limited by a number of methodological issues, the study contributes to the research on burnout and psychiatric morbidity among nurses. However, burnout is an important barometer of major dysfunction in the workplace. It may be symptomatic of deeper systemic problems within a given setting. Therefore, burnout among nurse may have serious implications not only for the quality of emotional and physical care provided for patients but also for the health and well-being of the nurses themselves. The implication of the effects of burnout and generalized anxiety

disorder on the health and productivity of nurses is seen to be of great importance.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Freudenberger HJ. Staff burnout. Journal of Social Issues. 1974;4:4-20.
2. Schaufeli W, Greenglass E. Introduction on a special issue on burnout and health. Psychology and Health. 2001;16:501-510
3. Kumar S. Burnout in psychiatrists. World Psychiatry. 2007:3:68-189.
4. Ergin A, Erdur B, Turckuer I. A study of depression and anxiety among doctors working in emergency unity in Denizli. Turkey. Emergency Medicine Journal. 2006; 23:759-763.
5. Cherniss C. Long-term consequences of burnout; An explanatory study. Journal of Organizational Behaviour. 1992;13:1-11.
6. Burich M. The burnout- syndrome: A theory of inner exhaustion. Heidelberg: Springer Medizin Verlag; 2006.
7. Moens G, Dohogne T, Jacques P. Occupation and the prevalence of back ache among employees in health care. Arch Public Health. 1994;52:189-201.
8. Demerouti E, Bakker A, Nachreiner F, Schaufeli W. The job demands-resources model of burnout. Journal of Applied Psychology. 2007;86:499-512.
9. Farber BA, Helfetz LK. The process and dimension of burnout in psychotherapists. Professional Psychology. 1982;13:293-301.
10. Oyetunde M. A pilot study assessing litigation in health care services in Nigeria. Afr J Med Med Sci. 2011;40(1):85-89.
11. Goldberg D. A dimensional model for common mental disorders. British Journal of Psychiatry. 1996;168(30):58-67.
12. Goldberg D, Williams P. A user guide to the general health questionnaire. NFER Nelson Windsor. Canada; 1988.
13. Gureje O, Obikoya B. The GHQ as a screening tool in primary care setting. Social Psychology and Psychiatry Ep Idemiology. 1990;25(5):276-280.
14. Maslach C, Jackson S. Burnout in health professional; A social psychological analysis, social psychology of health and illness. 1982; 227-251.
15. Grau-Alberola E, Gil-Monte PR. Incidence of burnout in Spanish nursing professionals: A longitudinal study. Int. Journal Nursing Study. 2010;47(8):1013-20.
16. Zalaquet C, Wood R. Evaluating stress. Scarecrow Press, Inc Lanham, Maryland; 1997.
17. Coker AO, Omoluabi PF. Burnout and stress reaction among psychiatrists in Lagos. African Journal Online. 2010;18(1): 1- 12.
18. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (4th Edition). American Psychiatric Association, Washington DC, USA; 1994.
19. Spitzer MB, Robert L, William G, Janet B. How to reference the SCID- structured clinical interview for DSM disorders. New York Biometric Research. New York State Psychiatric Institute; 1996.
20. Statistical Package for Social Sciences. SPSS Statistics for Windows, Version 22.0. Armonk. 2013 NY: IBM Corp.
21. Coker AO. Assessment of burnout syndrome in doctor and nurse. Unpublished M.Sc. Research Project. Department of Psychology. University of Lagos; 2009
22. Pindar SK. Burnout syndrome and depression among health care professionals in Tertiary Health Institution in Maiduguri, North-Eastern, Nigeria – Transnational Journal of Science and Technology. 2012; 2(11):1-12.
23. Davies T. Gender and professional predicament in nursing. Open University Press, Buckingham; 2012
24. Harloyd E, Bond MH, Chan HY. Perceptions of sex role stereotypes, self concept and nursing role ideal in Chinese Nursing Students. 2002;37(3):293–303.
25. Loughery M. Just how males are male nurses? Journal of Clinical Nursing. 2008;17:1327–1334.
26. Laslett P. The World we have lost. New York: Charles Scribner's Sons. 1965;82.
27. Oba A. Lawyers, legal education and the Sharia Court in Nigeria. Journal of Legal Pluralism. 2004;21:113-157.
28. National Population Policy, Nigeria; 2012 Population Policy in Nigeria. Available:www.urbanreproductivehealth.org
(Accessed 28/02/2017)

29. Erinosho L. Managing human resources, infrastructure and equipment in Nigeria. In: O.O. Kale, O.O. Dare, B.S. Fatunbi; (Eds); Better Health in Africa: The Nigerian Perspective Ibadan: CESTRAD. 1996;60 – 74.
30. Poncet MC, Toullic P, Papazian L, Kentish-Barnes N, Timsit J, Porchard F, Chervet S, Schlemmer B. Burnout syndrome in critical care nursing staff. American Journal of Respiratory & Critical Care Medicine. 2007;75:698-704.
31. Uwakwe R. Burnout and emotional well-being among workers and students at Nnewi, Nigeria. Journal of Biomedical Investigation. 2003;3(2):21–31.
32. Silva A, Menezes PR. Burnout syndrome and common mental disorders among community based health agents review Saude Publica. 2008;42(5):921-959.
33. Tourangeau A, Giovannetti P. Nursing related determinants of 30 day mortality for hospitalized patients. The Canadian Journal of Nursing Research. 2002;4(2): 12 -24.
34. Wilczek-Ruzyczka E. Occupational stress and burnout among polish psychiatric nurses. The European Health Psychologist. 2015;17(4):158-164.
35. Thorsen V, Tharp A, Meguid T. High rates of Burnout among maternal health staff at a referral hospital in Malawi: A cross-sectional study BMC Nursing; 2011. DOI: 10.1186/1472-6955-10-9
36. Lasebikan V, Oyetunde M. Burnout among nurses in a Nigerian General Hospital: Prevalence and Associated Factors. ISRN Nursing; 2012. DOI: 10.5402/2012/402157
37. Hakanen J, Bakker A, Schaufeli W. Burn-out and work engagement among teachers. Journal of School Psychology. 2006;4: 495-513.
38. Adekola B. Work Burnout experience among University Non-Teaching Staff: A Gender Approach. International Journal of Academic Research in Business and social sciences. 2006. 2(1): 1 - 8
39. Schaufeli W, Enzmann D. The Burnout companion to study and practice: A critical analysis. Taylor & Francis, London; 1998.
40. Adebola H. Emotional expression at workplace: Implications for work-family role ambiguities. J Appl. Soc Psychology. 2005; 32(21):102-115.
41. Johnson S, Rea R. Workplace bullying: Concerns for nurse leaders. Journal of Nursing Administration. 2009; 39:84-90.
42. Sadock BJ, Sadock VA. Kaplan & Sadock's synopsis of psychiatry: Behavioural sciences/clinical psychiatry tenth Edition. Lippincott Williams & Wilkins; 2003.
43. Odejide O, Morakinyo J. Mental health and primary care in Nigeria. World Psychiatry. 2003;2(3):164-165.
44. Gureje O, Obikoya B. The GHQ as a screening tool in primary care setting. Social Psychology and Psychiatry Epidemiology. 1990;25(5):276-280.
45. Somoye E, Babalola E, Adebowale T, Onifade P. Prevalence and risk factors for anxiety and depression among commercial bank workers in Abeokuta, Southwestern Nigeria. Journal of Behavioral Health. 2015;4(2):55-62.

Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sciencedomain.org/review-history/24047