

BURNOUT SYNDROME AND DEPRESSION AMONG HEALTHCARE PROFESSIONALS IN MAIDUGURI TERTIARY HOSPITALS

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ABSTRACT

Background: Working in the Healthcare sector entails intensive work both physically and psychologically can exert intense psychological and physical pressures. The negative consequences of the stress associated with work in the health care sector pose serious problems not only to the caregivers but also to the quality of patient care. Defining the extent of this problem has value for the health worker and the patients overall well being. **Objective:** Determine the prevalence of Burnout Syndrome Depression among clinical staff and non-clinical staff in two tertiary hospitals in Maiduguri.

Method: It is a comparative study to assess the prevalence of burnout syndrome and depression among clinical and non clinical staff in tertiary health institutions in Maiduguri. Data was collected using the Becks depression inventory and the Mashlach burnout inventory.

Results: A total of 420 respondents were recruited for this study with both groups being matched for age and sex. A relatively high level of burnout was observed among the clinical staffs compared to the non clinical (21.5% versus 12.5%; $\chi^2=5.31$, DF=185 p=0.021). Depression was however, found to be insignificantly higher among the clinical staffs (Twenty 20 (10.7%) vs. 14 (7.6%); $\chi^2=1.096$, DF=1, p-value 0.295). There was a significant relatedness between having burnout and depression ($\chi^2=7.238$, DF=1, p=0.007). **Conclusion:** Burnout syndrome and depression are common among clinical staffs and there is relationship between depression and burnout syndrome. The negative consequences of this combination which is work related can have impact on the outcome of patient management. Findings call for detection and prevention of burnout syndrome among healthcare professionals in order to protect their wellbeing and that of the healthcare industry.

Keywords: Burnout syndrome, depression, health care workers, North-eastern Nigeria

INTRODUCTION

Working in the Healthcare sector entails intensive work both physically and psychologically. The round-the-clock responsibility, saving life and preventing death, and the lack of tolerance for error, can exert intense psychological and physical pressures. The negative consequences of the stress associated with work in the health care sector pose serious problems not only to the caregivers but also to the quality of patient care.^{1,2} Under such conditions, healthcare professionals face a heightened risk for a serious clinical condition called “*Burnout Syndrome*”.³ The health care service in Nigeria is currently strained with inadequate health care professionals, Dimensions of burnout include emotional exhaustion, (depersonalisation) and a feeling of low

accomplishment and professional failure. According to the International Classification of Diseases⁴ depression is a disorder characterised by the presence of three cardinal symptoms, namely loss of interest and enjoyment, depressed mood and reduced energy leading to increased fatigability and diminished activity.

Currently there is a dearth of information regarding stress-related problems such as Burnout Syndrome in north-eastern part of Nigeria. Thus with these attendant problem, research aimed at determining the prevalence, and understanding of the socio-demographic variables associated with Burnout Syndrome as well as Depression among health care professionals at Tertiary Healthcare levels in Maiduguri North-Eastern Nigeria.

Aims And Objectives of the Study-
Determine the prevalence of

- 1) Burnout Syndrome
- 2) Depression among clinical staff and non-clinical staff in two tertiary hospitals in Maiduguri namely, University Teaching Hospital Maiduguri & Federal Neuropsychiatry Hospital Maiduguri.
- 3) Identify the socio-demographic parameters associated with these conditions in the health care professionals.

MATERIALS AND METHOD

The study was carried out in two tertiary healthcare institutions located in Maiduguri, namely the University Teaching Hospital, Maiduguri, and the Federal Neuro-psychiatric Hospital, north-eastern sub-region of Nigeria. This was a comparative cross sectional study of the prevalence of Burnout Syndrome and Depression between clinical and non-clinical staff groups of subject were studied. They were

- 1) An index group of clinical staff
- 2) Comparison group of non-clinical staff matched for gender and age.

Subjects must be serving clinical and non-

clinical staff of hospitals UMTH &FNPH and literate in English. Participants gave informed consent. A prevalence of 50% was reported among health workers in Ibadan⁵. The sample size was therefore calculated using prevalence of 50% & at a confidence level of 95%. Sample size for estimated population of 500 which is < 10,000 was utilized to arrive at the 216 for clinical and 216 for non-clinical staff. The sample was selected using a proportional stratified sampling technique.

The population of clinical staff was then grouped, according to job description, into doctors, nurses, pharmacists, occupational therapist/ physiotherapists and social workers with proportions of 142/500, 260/500, 35/500, 23/500, 30/500 respectively (500 being the total sum of the clinical staff in University Teaching Hospital - 417 and Federal Neuropsychiatry Hospital - 83). The non-clinical staffs were grouped into senior staff of central administration, finance/hospital records, engineering/works & maintenance, hospital library, hospital security. The proportions were 180/450, 101/450, 50/450, 21/450 65/450, respectively, (450 being the sum total of senior non-clinical staff in the University Teaching Hospital - 361 - and the Federal Neuropsychiatric Hospital -79. The subjects for the two groups were randomly selected and matched for age and sex. Ethical clearance and approval was obtained from the Research Ethical Committees of the University Teaching Hospital Maiduguri and the Federal Neuropsychiatric hospital respectively. The data were collected using the following instruments: 1. Socio-demographic Questionnaire. 2. Maslach Burnout Inventory (MBI). 3. Beck Depression Inventory (BDI-II) 2nd edition.

RESULTS

The study population consisted of 432 subjects, 216 clinical staff and 216 non-clinical staff. However, among the clinical staff, 19 did not return their questionnaire, 11 returned incomplete questionnaire with missing data.

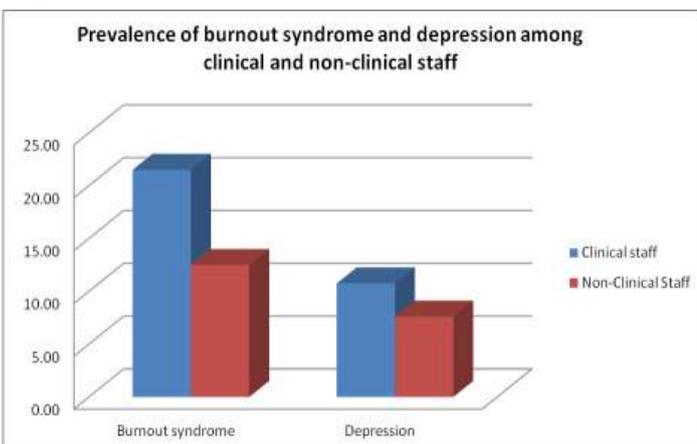
Among the non-clinical staff, 20 did not return their questionnaires, 12 returned questionnaire with missing data. This left a total of 370 questionnaires (186 clinical and 184 non-clinical) for analysis, amounting to 84.86% completed and analysable responses.

Table 1: Sociodemographic profile of the groups

	Socio-demographic Variable	Non-clinical group Frequency (%)	Clinical group Frequency (%)
		N = 184	N=186
Gender	Male	117(63.5)	127(68.3)
	Female	67(36.5)	59(31.7)
Age groups (years)	<35	76(41.3)	76(40.8)
	35-49	94(51.0)	101(54.3)
	50-65	13(7.0)	8(4.3)
	>65	1(0.7)	1(0.5)
Marital Status	Married	139(75.5)	133(71.5)
	Single	38(21.7)	41(22.5)
	Widowed	3(1.4)	7(3.3)
	Separated/Divorced	3(1.4)	5(2.7)
Profession	Doctors		55(29.5)
	Nurses		98.9(52.7)
	Pharmacists		13(7.0)
	Social workers		10(5.4)
	Occupational/Physiotherapists		10(5.4)
	Administrators	70(38.2)	
	Finance/Hospital records	42(22.8)	
	Works &Engineering	29(15.7)	
	Security	35(18.8)	
	Library	8(4.5)	
No of years in service	= 10	118(64.1)	111(59.6)
	11-20	46(25.2)	54(29.0)
	21-30	16(8.6)	18(9.6)
	=31	4(2.1)	3(1.8)

Out of the 186 clinical staff, 68.3% were males and 31.7% were females. And of the 184 non-clinical staff, 63.5% were males and 36.5% were females. The ages of the respondents ranged from 24 to 64 years with a mean age of 36.84 years (SD ±7.412) for the clinical group and age range of 21 to 60 with a mean age of 36.76 years (SD ±7.492) for the non-clinical group.

Figure 1:



Prevalence of overall burnout was higher among clinical staff than the non-clinical staff 21.5% versus 12.5% and the difference was statistically significant ($\chi^2=5.31$, DF=185 $p=0.021$). On the emotional exhaustion subscale the prevalence were 77.4% versus 63.6% for clinical and non-clinical groups respectively. But the difference was still statistically significant ($\chi^2=8.516$, DF=1 $p=0.004$) (Table 2,).

Table 2: Comparison of emotional exhaustion (EE) in Clinical and non-clinical staff

Category	Emotional exhaustion Positive (%)	Emotional exhaustion Negative (%)	Total (%)	Chi-square (χ^2)	P-Value
Clinical staff	144(77.4)	42(22.6)	186(100)	8.516	0.004
Non-clinical staff	117(63.6)	67(36.4)	184(100)		

Table 3: Socio-demographic Correlates of overall Burnout in clinical staff

Variables	Overall Burnout Freq(%)	No Overall Burnout Freq(%)	Chi-square (χ^2)	Degree of Freedom(df)	P-Value (P)
Gender					
Male	20(50)	107(73.2)	7.862	1	0.005
Female	20(50)	39(26.8)			
Marital Status					
Married	27(67.5)	106(72.6)	0.401	1	0.870
Not Married	13(32.5)	40(27.3)			
Age groups					
<35	13(32.5)	62(42.4)	3.745	3	0.434
35-49	26(65.5)	76(52.0)			
50-65	1(3.5)	7(4.8)			
>65	0(0.0)	1(0.6)			
Years in Service					
=10	17(40.0)	94(64.5)	11.218	3	0.049
11-20	17(47.5)	46(33.5)			
21-30	4(10.0)	14(9.5)			
21-30	1(2.5)	2(1.5)			
Professional category					
Doctors	10(25)	45(30.8)	5.845	4	0.211
Nurses	24(60.0)	74(50.6)			
Pharmacists	2(5.0)	11(7.6)			
Social workers	3(7.5)	7(4.7)			
Physic/Occup y Therapists	1(2.5)	9(6.3)			
Supervisory role					
Yes	11(27.5)	38(26)	0.027	1	0.211
No	29(72.5)	108(74)			

Table 4: Prevalence of Overall Burnout in Clinical staff according to gender

Gender	Overall Burnout	No overall Burnout	Prevalence of Overall Burnout
Male	20	107	15.7
Female	20	39	33.9

Among clinical staff that had overall burnout 17(40) belong to the group with <10 years in service while 1(2.5) of clinical staff with overall burnout came from the group with > 30 years in service, the observed difference within the groups was found to be statistically significant ($\chi^2 = 6.035$, $df=3$, $p = 0.049$) (Table 3) In this study frequency of burnout among females is higher than that of males (33.9% versus 15.7%) and with a statistically significant difference ($\chi^2 = 7.862$, $df=1$, $p = 0.005$) (Table 4).

Table 5: Sociodemographic correlates of depression in clinical staff

Variables	Depression n Freq(%)	No depression Freq(%)	Chi-square (X ²)	Degree of freedom(df)	P-Value (P)
Gender					
Male	10(50.0)	117(70.4)	5.427	1	0.043
Female	10(50.0)	49(29.6)			
Marital Status					
Married	11(55.0)	122(73.4)	2.996	1	0.083
Not Married	9(45.0)	44(26.6)			
Age groups					
<35	8(40.0)	62(37.3)	3.456	3	0.485
35-49	11(55.0)	96(57.8)			
50-65	1(5.0)	7(4.2)			
>65	0(0.0)	1(0.7)			
Years in Service					
=10	9(45.0)	102(61.4)	4.284	3	0.747
11-20	9(45.0)	35(28.0)			
21-30	2(10.0)	16(9.6)			
=31	0(0.0)	3(1.0)			
Supervisory role					
Yes	4(20.0)	46(27.7)	0.485	1	0.486
No	16(80.0)	120(72.3)			

Table 6: The Prevalence of Depression in Clinical staff according to gender

Gender	Depression	No Depression	Prevalence of Depression
Male	10	117	7.8
Female	10	49	26.9

The prevalence of depression in male and female was 7.8% versus 26.9% and difference was statistically significant ($\chi^2 = 3.427$, $DF=1$, $p = 0.043$). (Table 6).

Table 7: Association between Overall burnout and Depression in Clinical Staff

Variable	Depressed (%)	Not depressed (%)	Chi-square(²)	p-value
Overall burnout	9(22.5)	31(77.5)	7.328	0.007
No overall burnout	11(7.5)	135(92.5)		

Nine (22.5%) of those found positive for overall burnout had depression in contrast to 11(7.5%) of those who were found to be negative for overall burnout and had depression with a statistically significant difference ($\chi^2 = 7.238$, $DF=1$, $p=0.007$) (Table 7)

Table 8: Prevalence of Depression in clinical and non-clinical staff

Category	Depression positive (%)	Depression Negative (%)	Total (%)	Chi-square (X ²)	P-value (P)
Clinical staff	20(10.7)	166(99.3)	186(100)	1.096	0.295
Non-clinical staff	14(7.6)	170(92.4)	184(100)		

Twenty 20(10.7%) respondents of the clinical staff had depression on the BDI scale, while 14(7.6%) respondents of non-clinical staff had depression on the BDI scale, and the difference was not statistically significant ($\chi^2 = 1.096$, $DF=1$, p -value 0.295) (table 8 & figure 1).

DISCUSSION

In this study, Burnout Syndrome and Depression of the clinical and non-clinical staff were determined and compared. The sociodemographic variables associated with Burnout Syndrome and Depression among clinical staff were subsequently assessed.

There was a male preponderance (68.3%) with male to female ratio of 2.1:1, even though the sex ratio of male to female in the employment list is about 3.3:1. Probably this is because of gender inequality in acquiring education between the sexes in northern Nigeria. More emphasis culturally is placed on male child education and also because training in the health care profession is usually tasking and

competitive. The prevalence of 77.4% on the EE sub dimension of MBI found in clinical staff was close to rate of 75% reported in Brazil⁶. The prevalence of 21.5% on the overall MBI scale found in this study was close to 24.1% reported in Brazil.⁶ However, this is less than the average moderate to high level of overall MBI score of 38% seen in Mathari, Psychiatric health workers reported in Kenya.⁷ The rates of burnout reported in Africa and Latin America were generally higher than in United States which is a more advanced country in terms of regulating psychosocial occupational hazards. The rates of depression obtained for clinical and non-clinical staff were (10.7%) and 7.6% respectively, and there was no statistically significant difference between the two groups. The findings were consistent with 10% estimated for community with well served healthcare facilities determined by local studies.⁸

One third (33.9%) of the females experienced burnout than the (15.7%) male in the clinical group with statistically significant difference, which is in keeping with other findings⁹ that sex of health workers was significantly associated with high level of burnout in Spain, while a study in South Africa hospital workers showed no significant difference in burnout between the genders when study was carried out among Caucasians.¹⁰ This probably has to do with the vulnerability of the gender to psychosocial hazard and the combined demand of home and work life which might be more adhered to in some parts of the world than others. In this study, of all the sociodemographic variables studied only gender was found to be significantly associated with depression, with female clinical staff being more likely to develop depression than men. A local study also reported in Oyo state that depression was found to be more prevalent in women than men.¹¹ A significant association was also observed between depression and overall burnout on the MBI scale among clinical staff.

Limitations Of The Study- The use of self-reporting symptom inventory for assessing depression which is inadequate because the duration and clinical validity of symptoms remain unknown/ the use of depressive component of Composite International Diagnostic Interview (CIDI) is likely to give more objective assessment of Depression. Some staff carries out both administrative and clinical work making it difficult to place them appropriately into clinical and non-clinical staff.

RECOMMENDATIONS

There is the need to provide stress management services to healthcare professionals with emphasis on stress prevention and creating salutary hospital environment.

Creating awareness among health workers about the sociodemographic risk factors of Burnout syndrome and Depression among clinical staff.

CONCLUSIONS

The study showed moderate burnout levels in all categories of clinical staffs of tertiary health institutions in Maiduguri. there was significant association between Burnout Syndrome and Depression among clinical staff. Such findings call for detection and prevention of burnout among healthcare professionals in order to protect their wellbeing and that of the healthcare industry. Measures therefore need to be undertaken to address the mental health need of health workers with view of early detection and reduction of disability.

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