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Research Article

Burn Out Syndrome an Emerging Formidable Challenge to Health Care Delivery: Physicians Perspectives in a Recessive Economy

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Abstract

Background: Worldwide, Burnout Syndrome remains a potent challenge to successful healthcare delivery. This is more so in developing economies where healthcare manpower is overstretched with attendant negative impacts on health care professionals. The objective was to evaluate the extent to which physicians are vulnerable to development of burnout syndrome and possibly suggest measures to curb this menace. To the best of our knowledge, this will be the first survey on Burnout syndrome in the study area.

Methodology: It was a descriptive cross sectional study. Respondents were selected by multistage sampling technique. Only practicing medical doctors duly certified by the national regulatory body were enrolled in the survey. Oldenburg Burnout Syndrome Inventory (OLBI) was administered. Data generated was analysed using SPSS statistical software. Binary logistic and Polytomous Universal Model (PLUM) ordinal regressions were used to model relationships between demographics and scores on the inventory scale.

Results: A total of 105 questionnaires were administered and 85 were successfully collected and analyzed representing a response rate of 81%. Years of working experience range from 2 to 27 with mean value of 9.9 ± 0.6. The median working hours were 65. There were no statistical significant relations when high scores of BOS and hours of work, years of experience and age were compared ($r = 0.003$, $p = 0.979$; $r = 0.40$, $p = 0.72$ and $r = 0.094$, $p = 0.394$) respectively.

Conclusion: There is vulnerability of medical doctors to burnout syndrome in Sokoto.

Keywords: Physicians; Burnout Syndrome; Sokoto; Economy

Introduction

Burn out syndrome poses serious public health challenge globally. It refers to a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that occurs among individuals who do 'people' work of some kind [1]. It usually occurs when the coping strategies of individuals are overstretched and can no longer cope as result of overbearing demand. It is not restricted to physicians only. Other professionals in the health care delivery system as well as outside it are equally affected. These include nurses, pharmacists, teachers, and in fact any professional whose duty involves exhaustive interface with people [2]. Certain personality traits have been implicated in contributing to the development of Burnout syndrome such as type A behavior, neuroticism and pessimism [3,4]. Burnout syndrome negatively affects physical and psychosocial well-being of physicians, job output as well as managerial settings. This cumulatively results to decrease in quality of health care offered [5]. Ultimately this would have direct impact on the morbidity and mortality of patients receiving health care on one hand and the physical and psychosocial well-being of physicians on the other.

Burn out syndrome among physicians can be traced back to medical schools when during medical training students were exposed to extreme psychosocial stress [6]. This stress is usually carried over to internship which more often than not get aggravated through residency training due to work pressure accumulating over the years. The excessive demand from heavy workload and continuous high educational standard of medical training coupled with inbuilt personality traits provide fertile ground for burnout syndrome in the careers of medical professionals [7,8].

In the USA, 45.8% of physicians had experienced at least one symptom of burnout syndrome [9]. Suicides by physicians as a result of severe depression have been reported even in Nigeria recently [10]. The impact on economy is also enormous through absenteeism, premature retirement from service and poor service delivery. These negative impacts prompted the European Forum of Medical Associations in their annual meeting in Berlin Germany February 2003, to recommend that all member countries national associations to raise awareness on the syndrome and its harmful

effects on the overall health care system. It also called for international research into personal, social and structural causes of the syndrome with sole aim of recognizing and mounting an effective intervention strategy [11].

In Nigeria, the burden of the workload is higher than in developed countries due to very poor doctor-patient ration which is put at 1:3500 at 2016 very far higher than the WHO recommended 1:600 [12]. This professional demand, coupled with prevailing economic recession the country is going through the physicians working in this setting are more prone to develop the syndrome. This study is therefore timely most especially in the study area where doctor to patient ratio may be worse considering the educationally disadvantage status of the state within Nigeria federation.

Methodology

Study design

It was descriptive, analytical and cross sectional study.

Sampling

The respondents were selected by multistage sampling technique. Stage 1: Total number and places of practice of registered Physicians was obtained from the secretariat of Nigerian Medical Association (NMA) Sokoto state chapter. Stage 2: Number of respondents recruited for the survey was by proportionate allocation in respect of the major hospitals in the metropolis. Stage 3: Within the health facility respondents were selected proportionately taking their specialty into consideration. Stage 4: Selection of actual respondents was by interval sampling in the department.

Setting

Sokoto is the capital of Sokoto state and seat of the famous Sokoto Caliphate with the population of 436,698 [13]. Parts of neighbouring local governments of Dange Shuni, Kware and Wamakko constitute part of the metropolis. It lies between latitudes 13°3′490N and longitude 5°14′890E. Health care needs are met by a Teaching hospital and 4 secondary level hospitals with couple of Primary HealthCare Centres. The Teaching hospital serves as a referral centre from neighbouring states of Zamfara, Kebbi, Katsina and Niger Republic. The teaching hospital is manned by consultants in various specialties assisted by hosts of different cadres of medical doctors.

Instrument and data collection

The questionnaire was adopted from Oldenburg Burnout Inventory (OLBI) with a slight modification to suite our local needs. It composed of 2 sections. Section A comprised questions on demographic profile of respondents. Section B contained exclusively 16 items on OLBI structured on a four-points-Likert scale to evoke forced choice preferred over the five point scale. The questionnaires were delivered at the places of practice of physicians to ensure high response rate. The respondents were requested to fill in the questionnaire on the spot and those that could not, were allowed next day for the completed questionnaires to be retrieved. For each health facility a research assistant was employed to administer the survey inventory. The research assistants were fully trained on how to collect data.

Study population

Only practicing medical doctors that were duly licensed to practice by Medical and Dental Council of Nigeria (MDCN) and working in public hospitals were recruited in the survey. Other cadres of healthcare providers and medical doctors not directly working in hospitals were excluded.

Statistical Analyses

Proportions, confidence intervals and Odds were calculated. For each participant overall score was calculated on the OLBI on the four point Likert scale (Strongly agree = 4 to strongly disagree = 1) with reverse coding in positively framed items. It consists of 16 items- 8 positively and 8 negatively worded items which covered 2 subscales of burnout syndrome. Overall scores were calculated for each respondent on the Oldenburg Burnout Inventory scale (maximum = 64 i.e. strongly agree to all items, and minimum = 16 i.e. strongly disagree with all the 16 items) and thereafter classified low score = 16 - 31 and high score > 31. Subsequently we used Binary logistic and Polytomous Universal Model (PLUM) ordinal regressions to model relationships between demographics and scoring high or low scores on OLBI. All analyses were done with SPSS version 20. Level of significance was at $P < 0.05$.

Results

A total of 105 questionnaires were administered and 85 were successfully collected and analyzed representing a response rate of 81%. The mean age of respondents was 37.6 ± 0.6, only 9 (10.6%) were females. Majority were married 54 (87.1%). Years of working experience range from 2 to 27 with mean value of 9.9 ± 0.6. The median working hours were 65. There were no statistical significance relations when high scores of BOS and hours of work, years of experience and age were compared ($r = 0.003$, $p = 0.979$; $r = 0.40$, $p = 0.72$ and $r = 0.094$, $p = 0.394$ respectively).

Discussion

Although, Maslach Burnout Inventory was regarded as the gold standard and used in more than 90% of researches assessing burnout syndrome, it has its drawbacks [14,15]. Two scales of emotional exhaustion and depersonalization were worded negatively while professional efficacy positively. These psychometric restrictions coupled with narrow conceptualizations upon which the scale were based, prompted the coming up with Oldenburg burnout inventory. In this scale though professional efficacy was excluded, the two components wording were mixed and also included physical and cognitive domains of exhaustion [16].

A good response rate was recorded in this survey. This may not be unconnected to the on-spot administration and collection of the questionnaires adopted. Different specialties were enrolled in the study shown in table 1. Majority of the respondents that participated in the survey were males which sharply not in agreement with a findings in Kuwait and Greek [17,18]. This may be explained by the gender inequality in the Nigeria's public service which reflected level of education among the sexes especially in the zone where the study was carried out. Girl child education still remains a serious challenge in northern Nigeria [19,20]. No statistically

significant relationship between the respondents' demographics and scores for burnout syndrome was demonstrated (Tables 4 and 5). Previous studies demonstrated diverse findings on the influence of demographic features on burnout [21]. This observation is in agreement with what was reported previously [22].

Although burnout was coded Z73.0 in the 10th edition of International Classification of Disease, it has been demonstrated not to be diagnostic entity hence not included in Diagnostic and Statistical Manual of Mental Disorder [23]. The proportions of responses affirming to emotional exhaustion were really exciting (Table 2). This observation is in agreement with what was documented earlier [21].

The finding of the index study of the higher proportions of negative scores on the Oldenburg Burnout Inventory was really worrisome though we use 2 subscales of burnout syndrome. This observation is similar to what was earlier reported [24].

The overall findings on emotional exhaustion and disengagement components (Tables 2 and 3) have been reechoed by similar studies [21,25]. The seeds of burnout were thought to have been sown in medical school, nurtured during residency programs and become fully matured after the training. These findings were really disturbing considering the profound negative impact it will have on the already overstretched health care system. Looking for greener pastures and better working conditions outside the shores of the country due to economic challenges by qualified specialists will further endanger the health care delivery. Therefore there is need to stem the tides of brain drain by relevant government authorities. Improved working conditions and attractive packages will go a long way in lessening the exodus of skilled health care professionals thereby ameliorating currently overburden manpower.

S/N	Specialty	N (%)
1.	Community Medicine	2 (2.4)
2.	Family medicine	21 (24.7)
3.	Paediatrics	11 (12.9)
4.	O and G	18 (21.2)
5.	Surgery	13 (15.3)
6.	Pathology	1 (1.2)
7.	Psychiatry	3 (3.5)
8.	Internal Medicine	16 (18.8)
	Total	85 (100)

Table 1: Distribution of respondents in various departments. O and G: Obstetrics and Gynecology

S/N	Questions	N (%)	Odds	95% CI
1.	There are days when I feel tired before I arrived at work	79 (92.9)	13.17	5.87 - 29.3
2.	After work, I tend to need more time than in the past in order to relax and feel better	74 (87.1)	6.727	3.62 - 12.55
3.	I can tolerate the pressure of my work well	70 (82.4)	4.667	2.69 - 8.09
4.	During my work, I often feel emotionally drained	43 (50.6)	1.024	0.67 - 1.56
5.	After working, I have enough energy for my leisure activities	22 (25.9)	0.349	0.22-0.56
6.	After work, I usually feel worn out and weary	58 (68.2)	2.148	1.37 - 3.38
7.	Usually I can manage the amount of my work well	72 (84.7)	5.539	3.09 - 9.92
8.	When I work, I usually feel energized	37 (43.5)	0.77	0.504 - 1.18

Table 2: Responses to items of emotional exhaustion on Oldenburg Burnout Inventory.

S/N	Questions	N (%)	Odds	95% CI
1.	I always find new and interesting aspects in my work	80 (94.1)	16.00	6.67 - 38.39
2.	It happens more and more often that I talk about my work in a negative way	32 (37.7)	0.604	0.39 - 0.93
3.	Lately, I tend to think less at work and do my job almost Mechanically	39 (45.9)	0.848	0.56 - 1.29
4.	I find my work to be a positive challenge	83 (97.7)	41.50	11.23 - 153.4
5.	Overtime, one can become disconnected from this type of work	48 (56.5)	1.297	0.85 - 0.99
6.	Sometimes I feel sickened by my work tasks	65 (76.5)	3.25	1.979 - 5.34
7.	This is the only type of work that I can imagine myself doing	17 (20.0)	0.250	0.19 - 0.42
8.	I feel more and more engaged in my work	77 (90.6)	9.625	4.72 - 19.63

Table 3: Responses to components of Disengagement on Oldenburg Burnout Inventory.

Demographics	SEM	P-value	95% CI	
			Lower	Upper
Age	0.91	0.476	-0.114	0.244
Gender	0.69	0.622	-1.011	1.692
Marital status	0.653	0.058	-2.577	0.442

Table 4: Relationship of demographics and components of OLBI: Parameter Estimates.

Demographics	SEM	P-value	95% CI	
			Lower	Upper
Years of Experience	0.112	0.961	-0.225	0.214
Hours of work/week	0.008	0.750	-0.013	0.019

Table 5: Influence of professional characteristics on components of OLBI.

Conclusion

The findings of our study have pointed to the vulnerability of respondents to burnout syndrome. This appears not to be influenced by demographic or professional characteristics.

Conflict of Interest

Nil.

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