

Burnout Syndrome among Orthopaedic Surgeons in Lagos, Nigeria

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Background: The burnout syndrome has been associated with decreased job performance and low career satisfaction. There are many studies on surgeon burnout and globally but none has been carried out in Nigeria to address the issue of burnout among orthopaedic surgeons. This study aimed at assessing the rate of burnout syndrome among orthopaedic surgeons working in an orthopaedic hospital in Lagos State, Nigeria.

Methods: The study was a questionnaire-based cross-sectional survey. It took place at the National Orthopaedic Hospital, Igbobi, Lagos, Nigeria. All the doctors working at the specialist hospital were invited to complete a questionnaire on their demographic details and the Maslach Burnout Inventory which was used to measure burnout among the participants.

Results: Twenty-nine doctors took part in the study, 28 (96.5%) were males and 1 (3.5%) female, their mean age was 35. 52 years (SD 5.55) with a range of 28- 57 years. Of the total participants, 7 (24.1%) consultant surgeons and 21 (72.5%) were resident doctors. As regards burnout, 4 (13.8%) scored high on the emotional exhaustion subscale, 11 (37.9%) scored high on the depersonalisation subscale while 21 (72%) scored high on the personal achievement subscale. On the overall burnout rate, 15(51.7%) experienced burnout.

Conclusions: The findings of this study showed that orthopaedic surgeons working in Lagos State, Nigeria also experience certain degrees of burnout. There is a need for orthopaedic surgeons to acquire the skills of stress management to prevent burnout and also enhance quality service delivery in their various hospitals.

Introduction

The burnout syndrome has been defined as a state of physical emotional or mental exhaustion caused by long-term involvement in situations that are emotionally demanding¹. The literature shows that surgeons frequently experience stress, emotional exhaustion, depersonalization and reduced personal achievements at the work place^{2,3}. The factors responsible for stress and burnout among surgeons include long working hours, standing for long hours during surgery, work overload, staff shortage, poor remuneration and conflicting values³⁻⁶. Previous reports indicated that orthopaedic surgeons who experience stress and burnout were observed to be fatigued, irritable, to provide decreased quality and duty of care to their patients, hostile towards patients and colleagues⁵⁻⁹.

The reported psychological and physical consequences of burnout at the work place include frequent physical and emotional illnesses, absenteeism, reduced effectiveness, poor productivity and substance abuse in particular alcohol^{5,6}. The prevalence of burnout among surgeons has been documented to range from 30%¹⁰ to 58%¹¹. These high rates show that a possible large number of surgeons may be experiencing psychological, physical, personal and professional distress at a level that should be of concern to hospital managements. In view of the important implications of burnout among surgeons, it can be hypothesised that orthopaedic surgeons working in Lagos, Nigeria may also be at risk of developing the burnout syndrome. Despite the magnitude of studies on the burnout syndrome on surgeons globally, no work was found in Nigerian literature that addressed the issue of burnout among orthopaedic surgeons.

This study was therefore aimed at determining the rates the burnout syndrome among surgeons working at the orthopaedic hospital in Lagos, Nigeria with a view to making recommendations about its prevention.

Subjects and methods

This study was a descriptive cross-sectional study. It took place at the National Orthopaedic Hospital, Igbobi, Lagos, Nigeria. After obtaining approval from the Hospitals Research and Ethics Committee, written and verbal consents were taken from all the participants that took part in this study. A total of 29 surgeons consisting of both resident doctors and consultant orthopaedic surgeons were invited to take part in the study. The participants completed a set of questionnaires that were in two parts. The first part collected data on demographic information such as age, sex and marital status.

The second section of the questionnaire contained Maslach Burnout Inventory (MBI)¹². The MBI is a gold standard measure for burnout globally. It is a 22-item questionnaire of three independently scaled measures. The items are answered in terms of the frequency with which the respondent experiences his/her feelings, on a 7-point fully anchored scale, ranging from 0 (Never) to 6 (Every day). The range of reliability coefficients of the MBI are: Cronbach Alpha .71 to .90 and one month test-retest of .60 to .80. It has convergent validity coefficients that range from .20 to .56 by correlating MBI scores with the peer rating scores for different samples. As regards scoring of the MBI, direct scoring was used for the items of the Emotional Exhaustion (EE) and Dehumanisation (D) subscales by adding together the values of the ratings shaded while reverse scoring was used for the items of the Personal Accomplishment (P) subscale by adding together the reversed values of the shaded ratings. The items of the subscales are: EE = 1, 2, 3, 6, 8, 13, 14, 16, 20; D = 5, 10, 11, 15, 22 and P = 4, 7, 9, 12, 17, 18, 19, 21. The emotional exhaustion and depersonalization directly correlate with the burnout, while the personal accomplishment is inversely proportional to the burnout. The Maslach Burnout Inventory (MBI) has been validated in Nigeria and it has its Nigerian psychometric properties determined¹³.

Statistical analysis

The Statistical Package for Social Sciences (SPSS) version-17 was used to analyze the collected data. Continuous variables were expressed as means, standard deviation and range while categorical variables as proportions. Comparisons of categorical variables were done using chi square and the means using the student "t" test. The p-value less than 0.05 was considered to be statistically significant (confidence level = 95%).

Results

Twenty-nine doctors took part in the study, 28 (96.5%) were males and 1 (3.5%) female, their mean age was 35. 52 years (SD 5.55) with a range of 28- 57 years.

Table 1. Sociodemographic Details of the Participants

Variable	Frequency	Percentage
Sex		
Male	28	96.6
Female	1	3.4
Marital status		
Married	19	65.5

Single	10	34.5
Status		
Consultant	7	24.1
Resident	22	75.9

Table 2. Rates of Burnout Syndrome among the Orthopaedic Surgeons

Instrument	Norms	Frequency	Percentage	P-value
MBI				
EE	17.5	4	13.8	<.001
DP	2.52	11	37.9	<.001
PA	12.12	21	72.0	<.001

Of the total participants, 7 (24.1%) consultant surgeons and 21 (27.5%) were resident doctors and their years of practice ranged between twenty four months to 29 years. Analyses of marital status showed that 19 (65.5%) were married while 10 (34.4%) were single as shown in Table 1. With regards to the results of the MBI, 4 (13.8%) obtained high scores on the emotional exhaustion subscale, 11 (37.9%) respondents scored high on the depersonalisation while 21 (72%) respondents scored high on the personal achievement subscale as reflected in Table 2.

Discussion

This study aimed at measuring the burnout syndrome among orthopaedic surgeons working in Lagos, Nigeria. The findings of this study showed that 4 (13.8%) obtained high scores on the emotional exhaustion subscale, 11 (37.9%) respondents scored high on the depersonalisation while 21 (72%) respondents scored low on the personal achievement subscale and 15 (51.7%) experienced overall burnout syndrome. The results of this study appear to reveal similar rates with results from western countries^{1,5,10,11}. With these findings, we were able to demonstrate that about half of the respondents experienced burnout. Saleh³ reported a high burnout rate of 77% among American orthopaedic surgeons, Delgado-Martinez et al¹, reported 54% in Spain and in another study from Saudi Arabia, 50.7% of the orthopaedic surgeons suffered from emotional exhaustion and 59.4% had depersonalisation².

These results also indicated that an average level of personal achievement was maintained by the orthopaedic surgeons. Thus, despite the burnout experienced by these surgeons, they were still able to attain certain degree of personal achievement, probably because the salaries of physician and surgeons are above that of the average Nigerian worker. Nonetheless, some others studies also show that surgeons had reduced personal achievement^{3,4}. Some workers such as Sargent et al⁶ argued that the burnout syndrome, once reported to be a late-career phenomenon among surgeons is now being reported to manifest in younger surgeons and its onset may even occurred early during surgical residency programme. However, previous documents showed that surgeons who experienced burnout were reported to handle stress negatively by taking it out of their patients, families, withdrawing socially or delving to more work^{1-5,10}. In this light, burnout was observed to also precipitate work-family conflict and can also bring about psychological distress for spouses of physicians and surgeons¹⁴. Previous studies indicated that a significant proportion of surgeons experience burnout which can have serious negative repercussions for their practice, families and colleagues. Unattended emotional distress in surgeons can culminate in serious mental health disorders such as anxiety disorders, clinical depression, marital distress, alcoholism, substance abuse and attempted suicide¹⁰. It is in this light that Boisubin and Levine¹⁵ claimed that 15%

of all doctors may not be able to meet their professional responsibilities because of consequences of mental health disorders, substance abuse and alcoholism.

Some workers claimed that surgeons may appear to be more resilient when compared to physicians and this beliefs may put them at risk of developing burnout due to overwork which can lead to imbalance between personal and professional life¹¹. The literature revealed that priority is not given to physician mental health despite evidence of a high rate of untreated mental health disorders, high rates of depression and suicide¹⁶⁻¹⁷. The consequences of the surgeon burnout has a greater implication for himself, profession, family, physical and mental health then it stands to reason that the surgeon should acquire the skills of stress and burnout management. However, in preventing stress and burnout, the literature suggests that physicians and surgeons should acquire primary stress prevention strategies such as a healthy social system of relationships and workload management system expected to be balanced with hobbies such as watching movies, playing golf or lawn tennis^{17,19-20}. The secondary prevention strategies to be acquired by physicians and surgeons include carrying out physical exercises such as walking, jogging, cycling or swimming twice weekly to promote higher energy and endurance for long working periods.

Other reported techniques of managing burnout include frequent quiet rest periods, meditation, prayers and the practice of relaxation techniques^{17,18-21}. Nonetheless, this study is not without its limitations which include its small study population. However, further studies are suggested to determine the risk factors, sociodemographic correlates and cultural factors associated with the burnout syndrome among surgeons. The strengths of this study include provision of data on burnout among orthopaedic surgeon as a benchmark for future burnout studies in Nigeria; it coming from Africa where there are scanty scientific data on burnout of orthopaedic surgeons, likewise, this study has allowed the authors to contribute to the body of scientific knowledge.

Conclusions

This study has been able to demonstrate that Nigerian orthopaedic surgeons also experience the burnout syndrome. This finding has serious implications for both the surgeon and their patients. This is because the burnout surgeon may approach his duties with cynicism which may affect quality service delivery, patients' care and the sensitive patient-doctors relationship. There is a need for Nigerian orthopaedic surgeons to acquire different skills and techniques of stress and burnout management to prevent burnout and also enhance quality service delivery in their various hospitals.

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