

Occupational Stress in Dental Practice amongst Government-employed and Private Dental Practitioners in Eastern Nigeria: A comparative survey

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Abstract

Objectives: The aim of this study is to compare the level of occupational stress amongst government-employed and private dental practitioners in eastern Nigeria. **Materials and methods:** A total of 62 questionnaires were randomly distributed among government-employed and private practicing dental surgeons with five years and above working experience in eastern Nigeria. The information collected included: years of practice; mode of remuneration; causes of stress during clinical practice; signs of onset of stress; reactions of individual practitioner during stress condition; and patient's management during practitioner's stressful moment. Fifty-seven questionnaires were returned anonymously representing 92% response rate, these were used in the data analysis. **Results:** Forty-two (73.3%) out of the 57 respondents were government employed dental practitioners while 15 (26.7%) were in full private practice. Thirty-three (78.5%) government-employed respondents, indicated patients' management and type of clinical procedures as the main cause of their stress. Staff and practice management were the main cause of stress amongst all 15 respondents in full private practice. It was also observed that most dental surgeons (73.3%) in full private practice were affected by time pressure and environmental factor. Irritability and impatience was high (69%) among government-employed practitioners compared to (26.7%) among private practitioners. **Conclusion:** Our findings showed that private dental practitioners experience more stress in dental practice than government-dental practitioners in our environment. This could be explained in terms of time pressure, environmental factor and remunerations. This calls for an establishment of more government owned dental centers, government employment and good remuneration for dental surgeons to reduce the level of occupational stress in our daily dental practice.

Keywords: Occupational stress; Dental practice; Government-employed and Private dental practitioners; Eastern Nigeria

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Introduction

There is a considerable evidence that suggests that dental practitioners experience high levels of stress during their working lives (1) these are associated with significant distress, including a number of signs and symptoms (1-3). Stress in dental practice has been related to medical problems, feelings of low self-esteem, depression and anxiety, and feelings of hopelessness (2). This in turn affects patients' management outcome. Newton and colleagues observed that general dental practitioners have a higher risk of suicide than the general population as a result of stress in dental practice (3). Stress is a constant problem in dental practice because many dental surgeons do not appreciate or understand what

factors cause stress, let alone how to reduce the stress-causing factors (4). It is also believed that high levels of work-related stress are strongly related to job dissatisfaction and poor working relationships (5). The quality of the emotional environment established within the dental office may increase the interpersonal stresses resulting from poor communication between dental surgeons, staff, and patient (5). Moreover, poor working conditions under poor infrastructure and poor remunerations in a depressed economy like ours contribute immensely to the occurrence of stress in our daily clinical practice. Relieving stress-causing factors in dental practice is important as it provides an efficient and effective way to proper patients' management and surgeons'

job satisfaction. While the particular areas of stressful interaction are as numerous and varied as are the approaches to deal with such situations, what may be of ultimate importance is what an individual tells himself or herself about such situations (2). Difficulties in proper assessment of stress during practice may arise because dental surgeons, as with other health professionals often deny the occurrence of occupational stress (6,7). It is essential that dental surgeons are able to assess the degree of occupational stress being experienced by their staff and themselves (6). It is obvious that the effect of remunerations in the practice affects the degree of stress experienced among dental practitioners especially in Nigeria and other developing countries. While the practice of dentistry has been demonstrated to be significantly stressful in advance countries by several studies (1-6) there have been no literature on studies regarding stress among dental practitioner in Nigeria. At present there has been no research on the level of occupational stress in dental practice among government-employed and private dental practitioners in Nigeria. This paper therefore, is a comparative survey research on the level of occupational stress amongst government-employed and private dental professionals, in eastern Nigeria.

Materials and Methods

A questionnaire-based survey on occupational stress amongst dental professionals, including government employed dental practitioners and private dental practitioners in eastern Nigeria were carried out. A total of 62 questionnaires were distributed to randomly selected dental surgeons across the states in the Eastern region of the Federal Republic of Nigeria. Newly qualified dental surgeons and those undergoing their National Youth Service programme were excluded from the study. The ten-part questionnaires (Annex 1) distributed to dental surgeons were the same and were returned anonymously. Questions 1 and 2 were designed to find out the surgeons sub-specialty and years of practice. Mode of remuneration was addressed in question 3. Question 4 and 5 focused on awareness and presence of stress during clinical practice. The causes of stress during practice were addressed in question 6. Five specific signs of stress were included in question 7; these were increased heart beat, tightness in the chest, knots or butterflies sensation in the stomach, sweaty palms and a lump in the throat. Each surgeon therefore, marked the corresponding sign according to their personal experience and feeling during the stressful condition. Question 8 identified surgeons' reaction under stress these were;

irritability and impatience, feeling of rage, panic, loss of perspective and urgent need to do something. Surgeons were also asked to specify any other type of reaction peculiar to the individual experience. Question 9 was specifically designed to find out the fate of patients under treatment during the surgeons stressful condition. While question 10 addressed the effect of years of practice on individual surgeons stress experience. The data generated were collected analyzed and processed using the analysis using the chi-square (χ^2) test of associations. The level of significance was set at 0.05 where $p \leq 0.05$ is considered significance and $p > 0.05$ non significant.

Results

Fifty-seven out of the 62 questionnaires distributed amongst the dental professionals were returned anonymously, representing 92% response rate which were used in the data analysis. Out of the 57 respondents, 73.7% were government employed dental practitioners while 26.3% were in full private practice (Table 1).

Table 1: Mode of remunerations of respondents

Mode of Remunerations	Respondents' (n=57)	Percentage (%)
Government employed	42	73.7
Private practice	15	26.3
Total	57	100

All the 57 (100%) respondents agreed they had been under stress occasionally during practice. Regarding the cause of stress during practice 17 (29.8%) of all the 57 respondents gave indications that all the specifications in question 6 were responsible for their stress during practice. Amongst the 42 government employed dental surgeons, 29 (69%) indicated patients' management and types of dental procedures as the main cause of their stress. Fifteen respondents who are in private practice were of the opinion that staff and practice management were contributory to the stress, while 10 (66.7%) indicated time pressure and environmental factors as the main cause of stress (Table 2).

Considering the clinical signs that indicate the onset of stress during practice, 54 (94.7%) out of the 57 respondents observed that they have sweaty palms, 49 (86%) observed increase heart beat and sweatypalm, 28 (49.1%) a lump in the throat, 14 (24.6%) tightness in the chest while none had feeling of knots or butterfly sensation in the stomach (Table 3).

Table 2: Comparison of the causes of stress between government-employed dental practitioner and private dental practitioners

Causes of stress	Government-employed (n = 42)		Private practitioners (n = 15)		χ^2	P-value
Patients management	33	(78.5%)	8	(53.3%)	3.4	0.062
Time pressure	14	(33.3%)	13	(86.7%)	12.61	0.001
Staff/practice management	8	(19%)	15	(100%)	30.09	0.001
Types of dental procedure	33	(78.5%)	10	(66.7%)	0.85	0.357
Environmental factors	17	(29.8%)	11	(73.3%)	4.77	0.029

Irritability and impatience was high (69%) among government-employed practitioners during the stressful condition compared to (26.7%) among private practitioners. However, an urgent need to do something was highly significant ($P = 0.005$) among private practitioners than government-employed practitioners (Table 4). In regards to patient's management during stress, 91.3% out of the respondents indicated that they relax for a while before proceeding with the treatment. Out of these 52 respondents, 14 (93.3%) were private practitioners while 38 (90.4%) were government employed dental practitioners. Thirty-two (56.1%) amongst the 57 respondents indicated that they stop the procedure for the patient to come again at an appointed time. The years of practice was agreed by all the 57 respondents as having effect on stress and its management during clinical practice. It was observed that the longer the years in practice the less stress and better stress management during practice.

Table 3: Clinical Signs often observed by practitioners during the onset of stress

Clinical signs	Respondents (n = 57)	Percentage (%)
Increased heart beat	49	86
Tightness of the chest	14	24.6
Knots or butterfly in the stomach	0	0
Sweaty palms	54	94.7
A lump in the throat	28	49.1

Discussion

In dental practice the sources of stress are varied, including financial worries, business problems, difficulties with patients and feelings of time urgency and pressure.⁸ There is limited evidence that the degree of stress experienced by dental practitioners may vary according to the type of dentistry they practice - whether specialist or general

dental practice, and between specialties - and according to the framework of remuneration within which they work (2,3). The profession of dentistry is often perceived as having a poor public image, particularly in contrast to other health professionals such as medical doctors (2,9). Blinkhorn (10) and Cooper et al. (5) report that dentist feel that they are perceived negatively, even if it is not necessarily the case. Blinkhorn (10) in his study identified government payment system, feeling of being devalued and being trapped in the practice until retirement as the main sources of stress in dental practice. Evidence suggests that occupational stress in community dentist who are salaried and do not experience the same pay-related pressure is as high as that of private dental practitioners [1]. We do not share the same view in this study. Our study showed that government employed dental practitioners experienced less stress in terms of remuneration than the private practitioners. This could be better explained in terms of patients' patronage of the private dental centres in this part of the country. In a depressed economy where the average income of individuals is below standard most patients do not have options but to attend public dental clinics where the cost of treatment will be within their reach. The fall out to this, is that private dental clinic will be loosing patients and the proper remuneration accompanying it. Therefore, Staff/Practice management and time pressure, which have been identified as the main cause of stress ($P = 0.001$) among the private dental practitioners in this study, may be linked to pay-related stressors. Newton and gibbons (2) equally observed that time and scheduling pressures, which have been identified as part of dentistry, are linked to pay-related stressor. In most cases private dental practitioners carry out large volume of work in other to meet up with the financial obligations and substantial earning which in turn results to maintaining high level of concentrations above limits. This reduces the likely

hood of having rest breaks. The ratio of number of government-employed dental practitioners when

compared to that of private practitioners (3:1) in this study suggests the influx of dental practitioners in government service.

Table 4: Reactions observed among respondents during stress condition

Causes of stress	Government-employed (n = 42)		Private practitioners (n = 15)		χ^2	P-value
Irritability and impatience	29	(69%)	4	(26.7%)	8.14	0.004
Feeling of rage	3	(7.1%)	0	(0%)	1.13	0.288
Panic	1	(0.2%)	8	(53.3%)	21.58	0.001
Loss perspective	0	(0%)	0	(0%)	NA	NA
Urgent need to do something	16	(38.1%)	12	(80%)	7.77	0.005

This may be related to the condition of remunerations. On the other hand, patients' management and type of procedure seems to be the main stressors for the dental practitioners in government practice. Dailey et al. (11) and Lahti et al.(12) observed that patients' dental anxiety status and patients beliefs about dental treatment may affect dentist behavioral mood during clinical practice. Patient expectancy and dentist behavior/performance could be a contributory factor to developing stress during practice (13,14). Further investigation is therefore needed in this area.

Conclusion and Recommendations: In conclusion, the findings of this research confirm the occurrence of stress in dental practice with private dental practitioners more affected than government-employed dental practitioners. This calls for the establishment of more government owned dental centers with modern equipments, training and employment of dental surgeons with good remuneration to reduce the level of occupational stress in our daily dental practice. This in turn will provide an efficient and effective way to proper patients' management and job satisfaction.

References

1. Humphris GM, Peacock L. Occupational stress and job satisfaction in the community dental service of north Wales: a pilot study. *Community Dent Health* 1992; 10:73-82.
2. Newton JT, Gibson DE. Stress in dental practice: a qualitative comparison of dentists working within the NHS and those working within an independent capitation scheme. *Br dent J* 1996; 180:329-334.
3. Newton T, Mistry K, Patel A et al. Stress in dental specialists: A comparison of six clinical dental specialties. *Primary Dent Care* 2002; 9:100-104.

4. Newton JT, Allen CD, Coates J, Turner A, Prior J. How to reduce the stress of general dental practice: the need for research into the effectiveness of multifaceted interventions. *Br Dent J*. 2006; 200:600.
5. Cooper CL, Watts J, Kelly M. Job satisfaction, mental health and job stressors among general dental practitioners in the UK. *Br Dent J* 1987; 162:77-81.
6. Levin RP. Eight ways to relieve practice stress. *Am J Dent* 2004; 17: 142-4
7. Katz C. Reducing interpersonal stress in dental practice. *Dent Clin North Am* 1978; 22:347-59.
8. Wilson RF, Coward PY, Capewell I *et al.* Perceived sources of occupational stress in general dental practitioners. *Br Dent J* 1998; 184:499-502. |
9. Brake HT, Gorter R, Hoogstraten J, Eijkman M. Burnout intervention among Dutch dentists: long term effects. *Europ J Oral Sci* 2001; 109:380-387.
10. Blinkhorn AS. Stresses and the dental team: a qualitative investigation of the causes of stress in general practice. *Dent update* 1992; 19: 395-387
11. Dailey YM, Humphris GM, Lennon MA. The use of dental anxiety questionnaires: a survey of a group of UK dental practitioners. *Br Dent J* 2001;190:450-453
12. Lahti S, Tuutti H, Hausen H, Kaariainen R. Comparison of ideal and actual behaviour of patients and dentists during dental treatment. *Community Dent Oral Epidemiol* 1995; 23:374-378
13. Humphris GM, Morrison T, Lindsay SE. The modified dental anxiety scale-validation and United Kingdom norms. *Community Dent Health* 1995; 12:143-150

14. Frazer M, Hampson S. Some personality factors related to dental anxiety and fear of pain. Br Dent J 1988; 165:436–439.

Annex 1.

A Questionnaire on stress during practice among Dental Professionals in Eastern Nigeria

Please tick the appropriate response.

1. What is your area of specialization: a. Oral & Maxillofacial Surgery; b. Restorative dentistry; c. Child dental health; d. Preventive dentistry; General dental practitioner others (specify) -----
2. How many years have you put into practice? a. 5-10 years; b. 11-15 years; c. 16-20 years; d. 21- 25 years; e. 26years and above. -----
3. What is your mode of remuneration? a. Government; b. Private; c. others specify-----
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4. Do you understand the meaning of stress? Yes or No
5. Do you experience stressful condition during practice? Yes or No
6. What are causes of your stress during practice? a. Patients management; b. Type of dental procedure; c. Time pressure; d. Staff & practice management; e. Environmental factor; others (specify)-----

7. What are the signs you notice when you think you're under stress? a. Increased heartbeat; b. Tightness in the chest; c. Knots or butterflies in the stomach; d. Sweaty palms; e. A lump in the throat; f. others (specify)-----

8. How do you react when you are under stress? a. Irritability and impatience; b. Feeling of rage; c. Panic; d. loss perspective; e. urgent need to do something; f. others (specify)-----
9. What is the fate of your patient when you're under stress? a. Relax for a while before proceeding to treatment; b. Stop the procedure and discharge the patient to see you at another appointed time; c. Discharge patient out right and refer to another surgeon; d. Discharge patient with no referral; e. others (specify)-----
10. Does the increase in the years of practice helped in controlling your stress during practice? Yes or No.



"I'm beginning to think that my lawyer is too interested in making money."
"Why do you say that?"
"Listen to this from his bill. For waking up at night and thinking