ORIGINAL ARTICLE

PSYCHOGENIC OROFACIAL PAIN AMONG PATIENTS ATTENDING A TERTIARY HOSPITAL IN NIGERIA

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ABSTRACT

OBJECTIVES: There is dearth of study reporting overall prevalence of psychogenic orofacial pain in our environment, and many aspects of such disorder are relatively unknown. The goal of this study was to show the overall prevalence of psychogenic orofacial pain and to determine the age and gender distribution of the various types of psychogenic orofacial pain in a Nigerian population.

PATIENTS AND METHODS: This was a retrospective study conducted on patients suffering from psychogenic orofacial pain who were referred to the Department of Oral Pathology and Medicine, University of Benin Teaching Hospital, over a period of 4 years. The differential diagnosis was made on the basis of history, clinical examination, laboratory and radiographic investigations and by applying the criteria laid down by International Association for the Diagnosis of Pain.

RESULTS: Out of a total of 1,019 patients seen during the study period, 57 (5.6%) cases of psychogenic orofacial pain were diagnosed. The males accounted for 36.8% (n=21), while the females accounted for 63.2% (n= 36) giving a ratio of 1:1.7. Majority of the patients were in the age group of 41 to 50 years. Analysis showed the patients were suffering from temporomandibular pain dysfunction syndrome (TMDS) 38 (66.7%), burning mouth syndrome (BMS) 9 (15.8%), atypical facial pain 6 (10.8%) and, atypical odontalgia 4 (7.0%)

CONCLUSION: The overall prevalence of psychogenic orofacial pain was 5.6% in the population studied. TMDS was the most common type, followed by BMS and they occurred mostly in young adult female patients.

Key Words: Psychogenic, orofacial pain, prevalence.

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INTRODUCTION

Pain is a subjective and complex phenomenon with sensory, emotional, behavioural and cognitive components and the International Association for the Study of Pain (IASP) defines pain as an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage. [1] Pain is one of the most common symptoms encountered in clinical practice and the head is a frequent site of pain. [2]

Psychogenic pain is a term used for pain that patients feel where no organic cause can be found and is psychogenic in its evocation. [3, 4] Psychogenic pain is caused, increased, or prolonged by mental, emotional, or behavioural factors. [5] The pain is often non-anatomical in distribution, it is associated with somatosensory changes, it's co-morbid with psychological problems and presents difficulties with diagnosis and treatment. There are three ways whereby psychological factors can evoke pain: by psychogenic magnification of physical pain, by emotional stress creating muscle tension and producing muscular pain and more specific regional pain produced by hysterical mechanism or by anxiety. [6] Psychogenic orofacial pain can be seen in: normal persons under stress; people with a personality trait, such as hypochrondriasis; neurotic, often depressed persons and psychotic patients. [3]

Lim [7] summarized a set of diagnostic clues for psychogenic pain namely: there is no clear cut onset, the pain is poorly localized, and it may occur in multiple sites and extends over an increasing area; the pain varies with changes in the patients´ moods; the pain is not relieved by analgesic medication, but anti-anxiety and antidepressant drugs may prove useful and relieve the pain significantly; Pain does not disturb the patient from sleep and neurotic symptoms and/or personality disorders may be observed.

There is dearth of study reporting overall prevalence of psychogenic orofacial pain in our environment, as most studies reported on the different types of psychogenic orofacial pain and many aspects of such disorder are relatively unknown. Therefore, the goal of this study was to show the overall prevalence of psychogenic orofacial pain and to determine the age and gender distribution of the various types of psychogenic orofacial pain in the Nigerian population.

PATIENTS AND METHODS

This retrospective study was conducted on patients suffering from psychogenic orofacial pain who were referred to the Department of Oral Pathology and Medicine, University of Benin Teaching Hospital, over a period of 4 years (January 2010 to December 2013). The differential diagnosis was made on the basis of history, clinical examination, laboratory and radiographic investigations and by applying the criteria laid down by International Association for the Diagnosis of Pain. [8] Other data collected were age and gender of the patients. Also, the duration of pain, characteristics, sites, referral, initiating factors and relieving factors, previous consultations and treatment received were noted.

Statistical analysis was performed using Statistical Package for Social Sciences (SPSS) software version 17 (SSPS® Inc., Chicago, IL, USA).

Ethical approval was given by the Ethics Committee of the University of Benin Teaching Hospital for the study.

RESULTS

Out of a total of 1,019 patients seen at the Oral Pathology and Medicine Clinic during

the study period, 57 (5.6%) cases had psychogenic orofacial pain. The males accounted for 36.8% (n=21), while the females accounted for 63.2% (n= 36), giving a male to female ratio of 1: 1.7. Majority of the patients were in the age group of 41-50 years [Figure 1].

Analysis showed the patients were suffering from temporomandibular pain dysfunction syndrome (TMDS) 38 (66.7%), burning mouth syndrome (BMS) 9 (15.8%), atypical facial pain 6 (10.5%) and, atypical odontalgia 4 (7.0%) [Table 1].

Table 2 shows the distribution of the various psychogenic orofacial pain based on age group. TMDS occurred more in patients between 31 to 50 years (n= 16, 28.1. Burning mouth syndrome was seen more in patients aged over 70 years (n= 3, 5.3%).

DISCUSSION

The prevalence, gender and age distribution of the different types of psychogenic orofacial pain have been reported separately in previous studies. Qazi et. al., [4] reported a prevalence of 12.6% for burning mouth syndrome and 9.5% for atypical facial pain with a higher female preponderance. Whereas, the overall prevalence of psychogenic orofacial pain in this population studied was 5.6% and the patients were mostly in females in the 3rd and 4th decades of life.

The most common psychogenic orofacial condition in this study was temporomandibular pain dysfunction syndrome (TMDS); it is also commonly called temporomandibular disorder. The criteria for the diagnosis of TMDS include muscle tenderness; temporomandibular joint clicking; difficulty in opening the jaws and sometimes deviation on opening; a dull ache or severe episodes associated with jaw opening, or both. [8, 9] TMDS is seen mainly in young adult women in whom no organic cause can be reliably identified.[10] Psychological stress and bruxism are widely believed to be contributory factors. [8] Most of the patients in the present study presented with cases of TMDS with higher prevalence in females in 4th and 5th decades of life. This compares with previous study by Qazi J A et. al. [4] TMDS Pain is usually dull, poorly localized, may radiate widely, and it is usually intensified by movement of the mandible. [11] Examination may reveal a click from the joint, limited jaw movements, and tender masticatory muscles. Most patients recover spontaneously. Therefore reassurance and conservative measures are the main management, particularly medical treatment of TMDS is recommended, before considering invasive therapy for unresponsive patients. [11, 12]

BMS and AFP were higher in females in this study, which agrees with previous studies. [4, 13] The reported prevalence rates of BMS in general populations vary from 0.7% to 15%. [13] Similarly, the prevalence rate of 15.8% was recorded for BMS in the present study. Many systemic and local disorders can cause a burning sensation localized at the oral mucosa, but 'true' idiopathic BMS is defined as a burning pain in the tongue or other oral mucosal membrane in absence of clinical and laboratory abnormalities. [14] Somatoform pain disorder has been suggested as a mechanism and factors such as personality, stress, anxiety, depression and other psychological, psychosocial and even psychiatric disorders play a demonstrable role in BMS aetiology and symptomatology. [15, 16] In order to treat BMS patients, both physiological and psychological factors must be managed. [15]

AFP is described as persistent facial pain that does not have the characteristics of cranial neuralgias and is not attributable to another disorder. [17] The pain is usually burning and continuous in nature, and may last for many years.

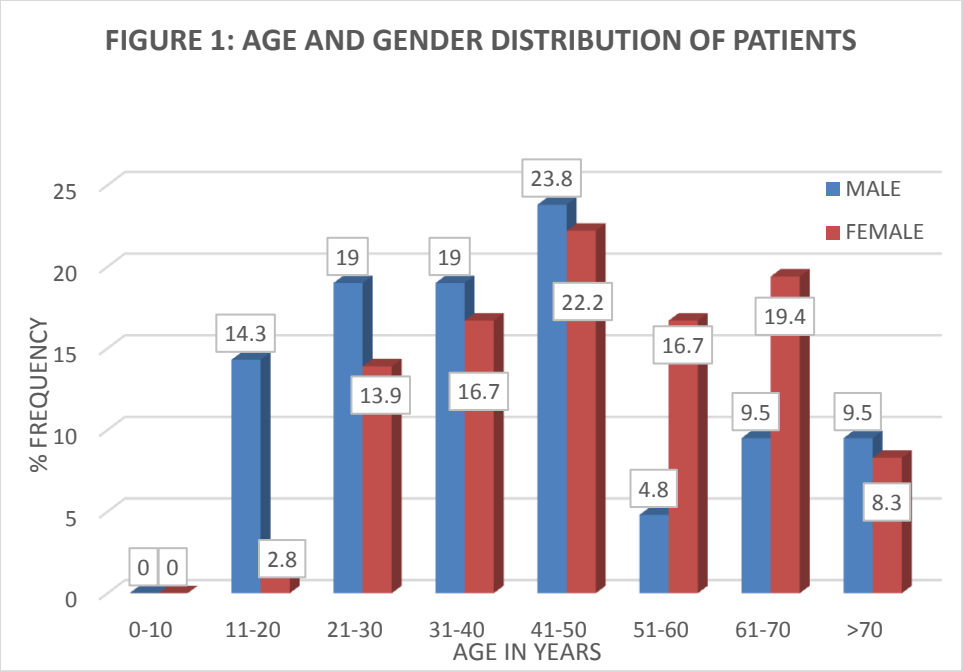

Table 1: Prevalence of psychogenic orofacial pain

	GENDER		
PRIMARY DIAGNOSIS	**Male (%)**	**Female (%)**	**TOTAL (%)**
AO	1 (1.8)	3 (5.3)	4 (7.0)
AFP	1 (1.8)	5 (8.8)	6 (10.5)
BMS	2 (3.5)	7 (12.3)	9 (15.8)
TMDS	17 (29.8)	21 (36.8)	38 (66.7)
TOTAL	21 (36.8)	36 (63.2)	57 (100.0)

Table 2: Distribution of psychogenic orofacial pain according to age group

PRIMARY	**AGE GROUP**							**TOTAL**
DIAGNOSIS	**11-20**	**21-30**	**31-40**	**41-50**	**51-60**	**61-70**	**>70**	**(%)**
AO	0	2	0	1	0	1	0	4 (7.0)
AFP	0	1	1	1	1	2	0	6 (10.5)
BMS	0	0	2	2	2	0	3	9 (15.8)
TMDS	4	6	7	9	4	6	2	38 (66.7)
TOTAL	4 (7.0)	9 (15.8)	10(17.5)	13(22.8)	7 (12.3)	9 (15.8)	5(5.8)	57 (100.0)

AO: Atypical odontalgia, **AFP:** Atypical facial pain, **BMS:** Burning mouth syndrome, **TMDS:** Temporomandibular pain dysfunction syndrome

Depression and anxiety are often associated with AFP, which are described as a contributing cause of the pain. For unknown reasons, AFP is significantly more common in middle aged or elderly females. [11, 18] A case-report summary of four patients with atypical facial pain showed similar patterns on psychological projective testing, reflecting similar psychological mechanism underlying their conflicts. [19] The study recommended that patients who failed to respond to specific therapies or who have significant atypical pain characteristics be evaluated for current or past psychosocial difficulties with a view toward providing patients with acceptable alternative explanations for their pain. [19] Most reports state that over 70% of people with AFP are female. [11, 20] The present study reported more cases in elderly female patients aged between 61 to 70 years, which is comparable to previous studies. [18, 20] Furthermore, Omitola and Arigbede [21] reported a prevalence of 0.9% of AFP in Port Harcourt, Nigeria, whereas a higher prevalence (10.5%) was observed in this study. These findings suggest variation in the prevalence of AFP within the Nigerian population. A collaborative study involving different centres within the country may be useful to ascertain the actual prevalence of AFP in Nigerians.

Atypical odontalgia (AO) is painful and hypersensitive teeth in the absence of detectable pathology. [11] Atypical odontalgia and depression are clearly linked. [22] It may be associated also with complaints of temporomandibular pain and dysfunction syndrome, oral dysesthesia, and pains of psychological origin. It may be a symptom of depressive or monosymptomatic hypochondriacal psychosis. [23] AO was found in 2.1% of a population of 3000 at the University of Southern California Orofacial Pain and Oral Medicine Center. [24] Other studies suggest that AO occurs in 3% to 6% of patients undergoing endodontic treatment. [25, 26] A study reported that AO occurs more frequently in females (80 to 90%) than in males.[27] A relatively higher prevalence (7.0%) of AO, with female predilection (75%) was recorded in the present study.

Antidepressants are the most successful and widely evaluated drugs used to treat these types of psychogenic orofacial pains and their benefit seems to be independent of any antidepressant action. Amitriptyline is the antidepressant favoured by most clinicians in the field.[1] Also, patient information is a very important aspect in management. Cognitive-behavioural therapy (CBT) or a specialist referral may be indicated. [11] Further study in collaboration with other centres in Nigeria is recommended to determine the effectiveness of the treatment options outlined above.

In conclusion, the overall prevalence of psychogenic orofacial pain was 5.6% in the population studied. TMDS was the most common type, followed by BMS, and they occurred mostly in young adult female patients. The symptoms and distress of patients presenting with psychogenic orofacial pain should be recognized and never be ignored or dismissed. The psychosomatic background to the problem should be explained to the patients and where necessary referral to a psychiatrist may be advised.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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REFERENCES

1. Hunter S. The management of psychogenic orofacial pain. BMJ. 1992; 304:330-331.
2. Farooq K, Williams P. Headache and chronic facial pain. Contin Educ Anaesth Crit Care Pain. 2008; 8: 138-142
3. Scully C, Porter S. Orofacial disease: update for the clinical team: 9. Orofacial pain. Dent Update 1999; 26: 410-417.
4. Qazi JA, Khan M, Qazi AH. Prevalence of chronic orofacial pain in a clinical sample. Pakistan Oral & Dent J. 2011; 31:285-287.
5. Gatchel RJ, Peng YB, Peters ML, Fuchs PN, Turk DC. "The biopsychosocial approach to chronic pain: scientific advances and future directions," Psychological Bulletin. 2007; 133: 581–624.
6. Bridges PK. Psychological aspects of headache. Postgrad Med J. 1971; 47: 556-561.
7. Lim LE. Psychogenic pain. Singapore Med J. 1994; 35:519-522.
8. Merskey H, Bogduk N. Classification of chronic pain: Description of chronic pain syndromes and definitions of pain terms. (2nd ed.). IASP Press Seattle. 2002. Pp. 74-93.
9. Schnurr RF, BrookeRI, Rollman GB. Psychosocial correlates of temporomandibular joint pain and dysfunction. Pain. 1990; 42: 153-155.
10. Scully C. Oral and maxillofacial medicine: the basis of diagnosis and treatment (2nd ed.). Edinburgh: Churchill Livingstone. 2008. Pp. 159–162.
11. Scully C, Felix DH. Oral medicine — update for the dental practitioner orofacial pain. BDJ. 2006; 200: 75 – 83.
12. Omoregie OF, Okoh M. Pattern of temporomandibular pain dysfunction syndrome in a Nigerian population. J Med Investig Pract 2014; 9:116-119.
13. Zakrzewska JM, Forssell H, Glenny AM. Interventions for the treatment of burning mouth syndrome. Cochrane Database Syst Rev. 2005; 1:cd002779.
14. Fedele S, Fricchione G, Porter SR, Mignogna MD. Burning mouth syndrome (stomatodynia). OJM .2007; 100: 527-530.
15. Abetz LM, Savage NW. Burning mouth syndrome and psychological disorders. Aust Dent J. 2009; 54: 84-93.
16. Gao J, Chen L, Zhou J, Peng J. A case-control study on etiological factors involved in patients with burning mouth syndrome. J Oral Pathol Med. 2009; 38(1):24-28.
17. The international classification of headache disorders, 2nd edn. 2004. Cephalalgia. 24:S9–160.
18. Ojo MA. Diagnostic problems and management of common orofacial pain in Nigerians. Nig. J Fam Med. Pract. 1992; 1: 42-46.
19. Baile Jr WF, Myers D. Psychological and behavioral dynamics in chronic atypical facial pain. Anesthesia progress. 1986; 33(5): 252-257
20. Greenberg MS, Glick M. Burket's oral medicine diagnosis & treatment (10th ed.). Hamilton, Ont.: BC Decker. 2003. Pp. 317-318.
21. Omitola GA, Arigbede AO. Prevalence and pattern of pain presentation among patients attending a tertiary dental center in a southern region of Nigeria. J Dent Res Dent Clin Dent Prospect. 2010; 4(2):42-46.
22. Baad-Hansen L. Atypical odontalgia - pathophysiology and clinical management. J Oral Rehab. 2008; 35:11-13.
23. Brooke RI. Atypical odontalgia, Oral Surg. 1980; 49:196-199.
24. Ram S, Teruel A, Kumar SKS, Clark G. Clinical characteristics and diagnosis of atypical odontalgia: implications for dentists. JADA. 2009; 140: 223–228.
25. Baad-Hansen L, Juhl GI, Jensen TS, Brandsborg B, Svensson P. Differential effect of intravenous s-ketamine and

fentanyl on atypical odontalgia and capsaicin-evoked pain. Pain. 2007; 129: 46–54.

26. Nixdorf DR, Moana-Filho EJ, Law AS, Mcguire LA, Hodges JS, John MT. Frequency of persistent tooth pain after root canal therapy: a systematic review and meta-analysis. J of Endo. 2010; 36: 224–230, 2010.
27. Bates Jr RE, Stewart CM. "Atypical odontalgia: phantom tooth pain," Oral Surg Oral Med Oral Pathol. 1991; 72:479-483.