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Culture and Patients' Perception to Maxillofacial Surgical Practices in Kano, Nigeria

*Kelvin U. OMEJE (BDS, FMCDS), *Akinwale A. EFUNKOYA (BDS, FMCDS), *Olusola I. AMOLE (BDS, FMCDS) **Benjamin I. AKHIWU (BDS, FMCDS), ***Otasowie D. OSUNDE (BDS, FWACS), **Rowland AGBARA (BDS, FWACS)

*Department of Oral and Maxillofacial Surgery, Bayero University, Kano and Aminu Kano Teaching Hospital, Kano, Nigeria, **Department of Dental and Maxillofacial Surgery, University of Jos, and Jos University Teaching Hospital, Jos, Nigeria, ***Department of Oral and Maxillofacial Surgery, University of Calabar, and University of Calabar Teaching Hospital, Calabar, Cross River State, Nigeria

ABSTRACT

Objective: Culture is the way of life of a people; and is an integral component of their day-to-day existence. It influences the daily routine of a people, including their diet, dressing, religious disposition, and surprisingly, the degree to which orthodox medical practices impact their daily lives. Appreciating underlying cultural context will help health care workers influence patient's perceptions, especially where cultural practices are not in tandem with medical best practices. This is important, for example, in administration of informed consent for surgery. This study explored cultural beliefs of patients in relation to some common maxillofacial practices in Kano, Nigeria.

Methods: Patient's perceptions on oral cancers, use of nasogastric tubes, and tooth extraction was conducted amongst patients attending maxillofacial outpatient clinic of a tertiary Nigerian hospital from January to December 2015 using a non-structured, interviewer-administered questionnaire.

Results: Seventy-seven (77) patients were surveyed (52 males and 25 females), with ages ranging from 16 to 75 years. Most were aged 51-60 years (44.2%). Only 6.5% of respondents had higher than secondary education. Responses to the aetiology and treatment of oral cancers, use of nasogastric tubes for maxillofacial surgery patients and extraction of teeth showed cultural perceptions usually at variance with medical best practices.

Conclusion: Patients' expectations and fears of maxillofacial surgery procedures are affected by their cultural beliefs. Proper acceptance of this, combined with targeted education and counselling may enhance patient's co-operation and acceptance of necessary surgical procedures when orthodox medical care is sought.

Key words: Culture, Maxillofacial surgery, Kano

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Correspondence

Dr. Otasowie D. Osunde
Department of Oral and Maxillofacial Surgery,
Faculty of Dentistry,
College of Medical Sciences
University of Calabar
Calabar, Nigeria
Email: otdany@yahoo.co.uk

INTRODUCTION

Culture is often defined as a way of life of a people; it is an integral component of their day-to-day life style. Cultural practices are often known to influence the daily routines of a people affecting, the type of food they eat, how they dress, religious disposition and surprisingly the degree to which they allow medical practice to impact on their daily lives.

Kano is one of the states in northwestern Nigeria, made up of population of 10,013,224 (based on the 2006 National Population Census) and consisting predominantly of the Hausa ethnic group. The Fulani ethnic group constitutes a small percentage of Kano indigenes.

Kano is made up of 44 local government areas with a predominance of Moslem religious sect.

Although Kano is a metropolitan state because of large volume of commercial activities in the state, Hausa cultural practices is seen to predominate in the state.

Anecdotal evidence showed that there is a strong influence of Hausa culture on the practice of maxillofacial surgery in Kano when compared with the other parts of Northern Nigeria. The strong influence of culture on the life style of an

average Kano indigene makes them to hold unto cultural practices much more than the scientifically proven practices.

Understanding of this relationship between culture and medicine will help health care workers to appreciate patient perceptive values to medicine, especially where routine cultural practices are not in tandem with medical best practices. This understanding will help in the sale of surgical procedures to patients and also help in administration of consent for surgeries knowing full well patients' expectations and fears.

Anecdotal evidence also showed that patients from Kano state and to some large extent patients from North West geopolitical region hold to some perception as regards the aetiology and treatment of oral cancers, use of nasogastric tubes for patient feeding and extraction of carious teeth. This perception, which is thought to take origin from cultural values, has been observed to affect the acceptance and the impact of maxillofacial care on them.

The objective of this paper is to evaluate the degree of impact these perceptions have in the practice of maxillofacial surgery amongst patients seen at the maxillofacial surgery unit of Aminu Kano Teaching Hospital Kano and to highlight guides to surgeons practicing in this region

PATIENTS AND METHODS

A prospective review of patient's perception on aetiology and hospital treatment for oral cancers, use of nasogastric tubes for feeding and extraction of teeth which were indicated for extraction was conducted amongst patients attending maxillofacial outpatient clinic over a one year period (January 2015-December 2015). Data was collected using a non-structured questionnaire where patients were made to freely express themselves. Questionnaires for this study was interviewer administered. The clinic nurse recorded patients' perception for all the subjects interviewed

Inclusion criteria were patients of Hausa descent, whose both parents were from Kano state. Exclusion criteria included patients whose both parents were not from Kano state. Patients' less than 15 years of age and patients who declined consent to participate in the study.

RESULTS

A total of 77 patients were surveyed (52 males and 25 females), the ages of the patients ranged from 16 years -75 years. The age distribution of the patients is shown in Table 1

Analysis of the educational status of the respondents indicated that most of the subjects had Islamic/Arabic education (61.0%) followed

by those who had primary education (18.2%) and secondary education (9.0%). There were few subjects who had tertiary education (6.5%) while patients without any form of education had the least representation (5.2%) (Table 2)

Table1: Age distribution of patients

Age(years)	Frequency (n)	Percentage
15-20	1	1.3
21-30	3	3.9
31-40	6	7.8
41-50	12	15.6
51-60	34	44.2
61-70	18	23.4
>71	3	3.9
Total	77	100

Table 2: Distribution of patients according to educational qualification

Educational status	Frequency (n)	Percentage
Uneducated	4	5.2
Primary	14	18.2
Secondary	7	9.0
Tertiary	5	6.5
Islamic/Arabic	47	61.0
Total	77	100

Analysis of response on the aetiology and hospital treatment for oral cancers showed that majority of the subjects (70%) do not have any idea on the aetiology of oral cancer, the remaining 25% and 5% believed that it is an affliction from the gods and a spell placed on people by others respectively. Concerning hospital treatment for oral cancers 50% believed that oral cancers should not be treated in the hospital except when it has defiled traditional care, these respondents believe that treatment in the hospital as the initial management renders the cancer incurable. Thirty percent believed that treatment should be hospital based, however treatment should not be invasive as surgical intervention usually marks the beginning of the end for cancer patients. The remaining 20% believed that treatment of oral cancer should be physician directed.

Analysis of patient's perception on the use of nasogastric tube for feeding of maxillofacial patients showed that 61% believe that NG tube feeding rapidly facilitates patients' demise and therefore should be avoided. Twenty-five percent believe that the clinicians deserves the right to use whatever they deem appropriate for their

patient's treatment but if their opinion is to be considered they would not want NG tube feeding, 10% believe that the clinicians opinion to when NG tube should be used is completely acceptable by them while 4% do not know if there is any problem with the use of NG tube feeding.

Analysis of patients' perception on the effect of extraction of carious teeth on the fate of other standing teeth showed that majority of the respondents (82%) believe that everything possible should be done to avoid going to the dental clinic for the extraction of a carious tooth as this would lead to affectation and subsequent extraction of other standing teeth. Ten percent believes that it can be extracted with no untoward consequence while 8% do not know if extracting a carious tooth has an effect on other standing dentition.

DISCUSSION

Patients' perceptions of aetiology and treatment of oral cancer

The terminology oral cancer is used loosely to connote malignant tumors of the oral cavity regardless of tissue of origin. The commonest of the oral cancers in maxillofacial practice in our center is the squamous cell carcinoma.¹

Squamous cell carcinoma of the orofacial region is an insidious and potentially life threatening malignant epithelial neoplasm representing more than 90% of all head and neck cancers.^{2,3,4}

There is a regional, continental and racial differences in its distribution; especially when comparing developed and developing nations.^{2,3}

Studies from developing countries including South America (Brazil) showed that orofacial cancer accounts for 35% of all malignancies, while studies from the United States of America have documented a national prevalence of 17 per 100,000 persons with newly diagnosed squamous cell carcinoma of the head and neck per year.^{4,5}

Male gender have been noted to pose a greater risk of oral cancer affectation than their female counterpart, and greater than 45-years age are more predisposed.^{2,5,6} The oral cavity and oropharyngeal regions have been documented to represent the sixth most common location for head and neck cancer occurrence in both male and female sexes.⁷

The exact aetiology of oral cancer is still a subject of debate amongst authorities involved in cancer treatment, however implicated risk factors in orofacial cancers have been documented to include alcohol consumption, tobacco smoking, actinic radiation, constant irritation from sharp tooth and syphilitic gumma.

Treatment of orofacial cancers has been hospital based and involves various combinations of surgery, chemotherapy and radiotherapy. The limitations of these modalities of treatment have given rise to various forms of tradomedical treatments and interventions. The orthodox forms of treatment have led to various perceptions and beliefs whose appreciation may be key to successful management of orofacial cancers cases especially in our locality

It is generally believed in Kano Nigeria that oral cancer should not be treated in the hospitals. It is often said in the local dialect "daji ba ya so alura" (meaning that tumors do not want injection



Figure 1. Photograph of a 55-year-old man with squamous cell carcinoma involving the entire lower lip



Figure 2. Photograph of a 60-year-old man with squamous cell carcinoma involving the entire upper lip/adjoining structures (tradomedical herbal concussion is seen applied over the lesion)

therapy). The reason given is often related to the increased aggressiveness and in fact, the often-fatal outcomes following invasive interventions from the hospitals in attempt at treatment. The support for this may be deduced from patients' experience at incisional biopsy in the hospital, which is usually the first step during surgical treatment for cancers. Incisional biopsy may in a way open up some deeper areas of the lesion with eventual increased aggressiveness especially owing to the fact that most of these patients often present late to the hospitals. At stage 4 presentations of these lesions, most at times only histological diagnosis may be made and patient sent for other treatment modalities, which is at best palliative, as these cases are sometimes considered inoperable. These inoperable lesions continue to grow in an exophytic manner until patient passes on; thus it tends to justify their saying, albeit wrong conclusion, that surgical intervention heralded the untoward consequences.

The perception that oral cancer is from spell from the enemy or the curse from the gods directs their choice of treatment to performance of sacrifices and appeasement of the gods rather than seeking hospital care. Tradomedical treatments are sometimes combined with some form of divinations and consultations of the gods and oracles, which are believed to be related to the root cause of these cancers. Presentation of these patients in our practice in cases of failure of improvement from tradomedical care results in having patients with extreme spectrum of the clinical presentation of oral cancers, which in most cases present with distant metastasis with very poor prognosis following treatment. Efforts to bring together these tradomedical practioners to train them for early referral to the hospitals as well as intense health education at grass root level would be key to early presentation, which will improve the acceptance and quality of care given to oral cancer patients in our setting.

Patients' perception on the use of nasogastric tube for feeding

The use of NG tube for feeding of a surgical patient is a lifelong practice in medicine and more so in the field of maxillofacial surgery where oral surgical procedures may preclude feeding per oral to prevent contamination of surgical field, reduce pain on an oral wound or assist feeding where orofacial tumors have blocked the passage of food through the oral cavity. It is generally believed among our study population that the institution of nasogastric (NG) feeding for a patient tends to

hasten their demise. The justification of this belief, borders on the fact that majority of patients on NG feeding in maxillofacial wards are often patients with reduced conscious status or terminally ill patients who may eventually pass on for other reasons. This coincidence has led patients and their relatives to vehemently oppose the use of NG tube feeding despite the medical justification and the insistence of the use by clinicians; and this may tend to have a strong psychological impact on the patient if it not properly addressed. Maxillofacial surgeons and supporting staff are expected to have a good knowledge of the reason for refusal of NG tube feeding by patients and relatives so as to be able to counsel patients and relatives properly and sell the use of NG tube to them especially when there is strong indication for its use



Figure 3: Photograph of a 65-year-old man with mucoepidermoid carcinoma involving the maxilla and mandible with obliteration of oral cavity who required a nasogastric tube for feeding.

Extraction of a grossly carious tooth leading to more extractions of teeth

The aetiology of dental caries has been well researched and there is consensus amongst experts that dental caries is caused by interaction between microorganism and substrate (refined sugar) when they interact with susceptible teeth over a period of time. A carious tooth is indicated for extraction if it is grossly carious and non restorable or when periapical pathosis is not amenable to root canal treatment. The belief amongst the rural populace here is that cavitation of a tooth is caused by some worms which tends to be exposed into the oral cavity at an attempt to extract the teeth. This is believed to have ripple

effect to stimulate the need to extract multiple teeth once the first is extracted since the worm tend to rapidly attack the other standing teeth having being discharged into the oral cavity during extraction.

The more scientific explanation of the above may be because most of such extraction is often in patients with pre-existing poor oral hygiene with other predispositions to tooth loss, also replacement of missing teeth using an acrylic denture, which serves as a food-packing medium may further increase the challenge on the oral hygiene, which is often poor in the first instance stimulating plaque and calculus accumulation, and ultimately tooth substance demineralization and cavitation.

Another dimension to more teeth loss following extraction may be related to institution of scaling and polishing of teeth following extraction as a prophylactic measure to prevent further tooth loss. Common finding of more teeth loss from this scenario is usually from advanced periodontal disease in which case calculus tends to hold together grossly mobile teeth thus dislodgement of these calculi during scaling tends to herald the exfoliation of these teeth.

The finding from this study showed that socio-cultural beliefs of our study population has a significant impact on the appreciation and responses to public health issues, it is also possible that the lower level of western education amongst the respondents which might be a reflection of the entire community shows a need for strong enlightenment at the grass root level to enhance positive patients' response to pertinent issues that affect their health. Other factors that may be contributory to the above findings may be the poor coverage of the primary health care (PHC) services in our communities. It is expected that patients attended to at the tertiary health care institutions would have been seen at the primary and secondary health care centers and then referred to seek expert care at the tertiary health care centers, where necessary. What is often obtainable in our setting is a situation where patient present to a physician at the first instance in a tertiary health care facility. The health care workers at the PHC are more likely to have been closer to the patients and more likely to have been known in the community so the patient would open up more to the health worker divulging all his fears thus getting better counseling and explanations. This gap in our setting would be contributing adversely to the degree of acceptance of our services and ultimately the quality of care the patient would be receiving based on their perception.

CONCLUSION

The knowledge of patient's perception and their cultural disposition would help health care workers to counsel patient better, and probably market treatment in a manner that would enhance patients' satisfaction. The finding of this study underscores the immense need of community health services including health education and promotion in our region. The present study may be limited by minimal data on related subject matter in the literature for comparison and low level of western educational amongst majority of the respondents considering the impact that level of education plays in peoples' perception.

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