

Team approach to management of oro-facial cleft among African practitioners: A survey

VI Akinmoladun, OS Obimakinde¹, VN Okoje

Department of Oral and Maxillofacial Surgery, University College Hospital, Ibadan,

¹Department of Dental and Maxillofacial Surgery, University Teaching Hospital, Ado-Ekiti, Nigeria

Abstract

Background: An interdisciplinary team approach concept has been proposed for management of oro-facial cleft in the last two decades. Our objective was to evaluate the practice of the team approach concept and practices of the specialists involved in oro-facial cleft care in Africa.

Materials and Methods: A snapshot survey was conducted among the attendees of the 2nd Pan-African Congress on Cleft Lip and Palate, at the International Institute of Tropical Agriculture, Nigeria, in February 2007.

Result: Of the 120 questionnaires distributed, 91 were returned for analysis (75.8% response rate). Mean age of respondents was 43.6 ± 4.97 years and the range was 36-62 years. Male-to-female ratio was 3.5:1. Oral and Maxillofacial Surgeons and Plastic Surgeons constituted the majority of respondents (34.1% and 29.7% respectively). Only 48.4% (44 respondents) of the specialists belonged to cleft teams. Majority of Oral and Maxillofacial Surgeons and Plastic Surgeons belonged to cleft teams (65.9 and 79.5% respectively), while Speech Pathologists and Orthodontists were less represented (18.2% and 40.9% respectively).

Conclusion: Findings from this study have shown that interdisciplinary care for the cleft patient is not yet fully established in Africa. The result obtained also suggests that cleft care in African population is young, and team care is perhaps many years behind the global trend. This may be a result of several reasons ranging from lack of sufficient specialists in African population generally to the relatively young age of cleft care practice in that part of the world

Key words: Africa, cleft, interdisciplinary care, lip, palate

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Introduction

Oro-facial clefts are a common birth defect with incidence of 1 in 700, and affected children have a number of medical problems and potential complications.^[1] A wide variety of healthcare specialists is therefore required in the management of such conditions.^[1-3]

Although management of oro-facial cleft deformities has received enormous attention in the literature, interdisciplinary care approach has been recommended recently and several descriptions have appeared in the literature.^[2,3] The best environment for cleft care is the one that features an interdisciplinary team of healthcare

providers including orthodontics, plastic surgery, oral and maxillofacial surgery (OMFS), otorhinolaryngology, and speech pathology.^[1-5] Other specialties such as audiology, pediatric surgery and genetics or psychology have been mentioned in the literature but their services are not universal.^[5,6] Effective team-based care delivery has the ability to provide coordination and communication between professionals involved in oro-facial cleft care.^[1]

Another indicator of the importance of team-based care was the recommendation of The American Cleft

Address for correspondence:

Dr. Obimakinde Obitade S,
Department of Dental and Maxillofacial Surgery, University Teaching Hospital, PMB 5355, Ado-Ekiti, Nigeria.
E-mail: tasky111@yahoo.com

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Palate-Craniofacial Association, which stated that oro-facial cleft management is best provided by an interdisciplinary team of relevant specialists.^[7] The body also identified that practitioners from developing countries are yet to embrace the team-based care. Researchers have identified sociocultural problems, religious beliefs, inadequacy of qualified specialists, and finance as factors militating against contemporary cleft care.^[8,9] Harwood^[9] noted that African patients exist in a sociocultural matrix, which determines the quality of contemporary medical care receivable by such patients. Practitioners involved in cleft care in developing countries are mainly surgeons who engage in primary repair of clefts only.^[10] Interdisciplinary cleft care is not being practiced in such situations because other aspects of cleft care are left unattended to most time.^[5]

There is dearth of literature on the subject of team care for the cleft patients in African population and this informs the need for the current study.

The purpose of this study was to evaluate the practice of the team approach concept by professionals involved in cleft care in Africa. Analysis of the scope of services rendered by such teams (where they exist) was also done.

Materials and Methods

A snapshot questionnaire survey was conducted among specialists that attended the 2nd Pan-African Conference on Cleft Lip and Palate (February 2007). The conference was attended by professionals from different parts of the continent. The questionnaire was adapted from a previous study by Pannbacker *et al.*^[2] Participants who were not specialists were excluded from the study. The questionnaire was designed to evaluate the following: Demographic data of respondent, specialty and years of experience, experience and involvement in cleft care, scope of services rendered, proportion of patients in different age categories, and the type of cleft treatment provided.

Data obtained from the survey was converted to relative values in frequency tables for analysis.

Results

Ninety-one[91] respondents successfully completed and returned the questionnaire for analysis [75.8% response rate]. The age range of the respondents was 36-62 years with a mean age of 43.6 ± 4.97 [median age 42 years]. Male-to-female ratio was 3.5:1.

Oral and maxillofacial surgery [$n = 31$] and plastic surgery [$n = 27$] had the highest number of respondents [34.1 and 29.7%, respectively] followed by orthodontics [13.2%]. Some specialties such as general surgery and restorative

dentistry [2% each] had less representation while others like audiology, social psychology, and genetics had no representation [Table 1].

Most of the respondents were less than 10 years post specialization [70.4%] while 25.6% had more than 10 years post specialization experience [Table 2]. Figure 1 shows a breakdown of the respondents according to domiciliation of practice. A breakdown of respondents according to the country where they practice revealed that Nigeria has the highest frequency [$n = 38$] followed by South Africa [$n = 15$] [Figure 1].

Majority of the specialists who participated in the study had their training in Africa [64.8%] while 22% and 6.7% were trained in Europe and America, respectively. 59.9% of the respondents practiced in teaching hospitals, 30.8% in Government [non teaching] hospitals, while others work in private hospitals.

Regarding interdisciplinary cleft care, 44 [48.4%] of the respondents claimed they belong to established cleft teams in their institutions. OMFS and plastic surgery were the predominant specialties present in cleft care teams [65.9% and 79.5% respectively]. 40.9% of the respondents had orthodontists in their team while 18.2% had speech pathologists [Table 3]. Figure 2 shows an illustration of the representation of various cleft care professionals on cleft teams.

The average number of new cases at the cleft clinics from the response was three monthly and children under 3 years of age constitute 50-75% of the patient population. Eight

Table 1: Specialty of respondents

Specialty	Frequency	Percentage
OMFS	31	34.1
Orthodontist	12	13.2
Plastic surgeon	27	29.7
Otorhinolaryngology	6	6.6
Anesthesia	5	5.5
Speech pathology	3	3.3
Pediatrics	3	3.3
Restorative dentistry	2	2.2
General surgery	2	2.2
Total	91	100

Table 2: Post qualification experience in years

Year	Frequency	Percentage
1-5	21	23.1
6-10	43	47.3
11-15	12	13.2
16-20	5	5.5
>20	5	5.5
Total	86	94.5

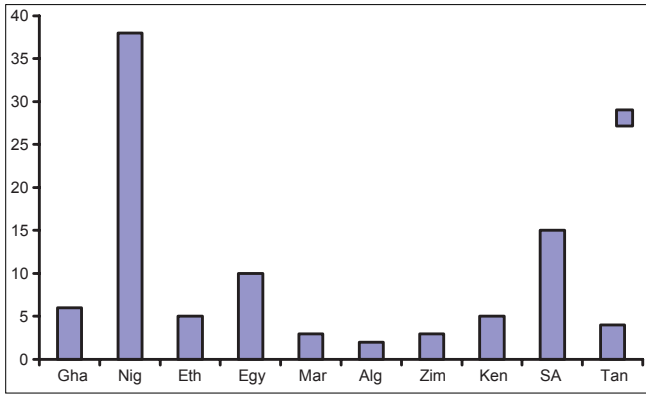


Figure 1: Breakdown of participants according to country where they practice. Oro-facial cleft care specialists who participated in this survey were highlighted according to the country where they practice. The breakdown showed that Ghana had 6 respondents, Nigeria 38, Ethiopia 5, Egypt 10, Morocco 3, Algeria 2, Zimbabwe 3, Kenya 5, South Africa 15, and Tanzania 5.

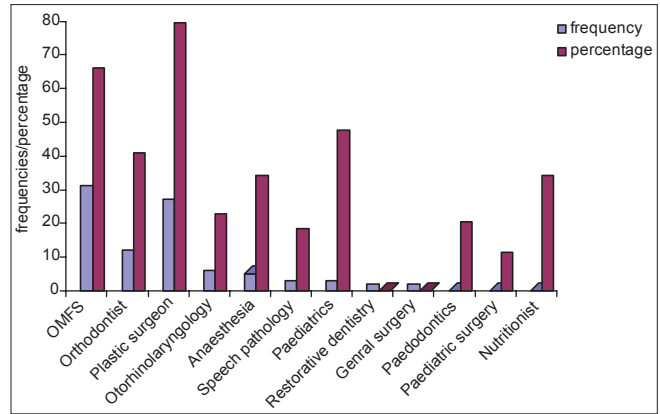


Figure 2: Specialty of respondents and representation on cleft teams. The figure shows that Plastic surgeons and OMFS are mostly represented on cleft teams where such exists (79.5 and 65.9%) respectively. Speech pathologists and Paediatric surgery were least represented (18.2 and 11.4%) respectively. Frequency of participants showed that OMFS [31] and plastic surgery [27] had the highest while paediatric surgery, nutritionist and paedodontics were not represented in the survey.

Table 3: Specialties that were represented on cleft teams

Specialty	Frequency	Percentage
OMFS	29	65.9
Orthodontics	18	40.9
Plastic surgery	35	79.5
Otorhinolaryngology	10	22.7
Speech pathology	8	18.2
Nutritionist	15	34.1
Pediatrics	21	47.7
Anesthesia	15	34.1
Pedodontics	9	20.4
Pediatric surgery	5	11.4

[12.7%] of the specialists had treated patients older than 17 years. Cleft lip constitutes 50-75% of cases seen while the range of isolated cleft palate cases is 25-50%. Primary repair of cleft lip and palate were the procedures mostly performed by the surgeons [90%]. Pharyngeal flap surgery was not commonly done, as 53 of 66 surgeons [80.3%] indicated that they do not perform pharyngeal flap procedures. A high proportion of the respondents do not engage in research, as only 47.3% claimed to be involved in research activities.

Regarding financial support and challenges to cleft care, only 34.1% of the participants said their patients were currently enjoying some form of financial support, while the challenges to cleft care in this survey were given by respondents to be finance [71.5%], logistics [47%], and sociocultural [44%].

Discussion

Management of oro-facial clefts has received significant attention in the literature and consensus of opinions centered

on interdisciplinary care by a team of relevant specialists.

Demography of the respondents showed a mean age of 43.6 and most respondents (70.4%) were less than 10 years post specialization. The dearth of specialists with over 10 years experience could be due to the fact that there were few trainers, training posts, and fewer numbers of doctors for training in cleft care in the past.^[11] Reconstructive surgery, cleft inclusive, may not have been given adequate attention during undergraduate training, and this not being considered to be a particularly lucrative area did not attract many who went on to train as specialists. However, there appears to be an increasing awareness, and more core practitioners in oro-facial cleft management are emerging.

The male-to-female ratio of 3.5:1 of respondents is comparable to other studies where males are predominant.^[2,5]

Less than half (48%) of the respondents belonged to cleft palate team; this contrasts with studies from Europe and America where most specialists are in cleft craniofacial teams^[2-6] Factors such as lack of adequate personnel, attitudinal problems, and sociocultural issues are problems affecting interdisciplinary cleft care in our environment. Care is also rudimentary, often limited to primary surgical repair, and little or no complimentary ancillary, but important, management such as speech therapy and orthodontics. This does not foster local interdisciplinary team formation.

Oral and maxillofacial surgery and plastic surgery constituted the bulk of the specialties in institutions where cleft teams were present. 40.9% of those who belonged to cleft teams had orthodontists as members while other equally relevant specialists like speech pathologists,

otorhinolaryngologists, and nutritionists were sparsely represented. The non-existence of these specialties in most cleft palate teams makes it difficult to practice the concept of team care. Rather, patients are made to undergo surgical treatment alone, while other aspects of care such as speech, orthodontics, and other secondary procedures are left unattended to, and this will adversely affect the treatment outcome. Furthermore patients with cleft are more likely to present to the oral and maxillofacial surgeon and plastic surgeon since the two specialties had similar representation in the primary repair in this study and previous studies.^[10-12]

Most of the patients seen were less than 3 years of age and eight (12.7%) of the respondents had treated adult patients. These findings agree partly with other studies where children constitute majority of the patient population; however, the number of unrepaired adult cases is higher than in the developed world, where adult cleft rarely exists.^[13] Lack of healthcare personnel in some communities, socio cultural beliefs, and financial considerations may be responsible for late presentation in our environment.

Average monthly turnout of three new patients reported by the respondents suggests that the prevalence of cleft lip and palate is perhaps higher in the African population than previously thought.

Primary repair of cleft was the most common procedure done by the surgeons while secondary procedures were reported by less than 20% of the surgeons. Lack of interest and poor perception of the need for secondary procedures on the part of the patients and poor finances may be responsible for this finding. Moreover, most of the respondents were less than 10 years post specialization, and they may not have adequate exposure and experience regarding secondary procedures and treatment.

Only 47.3% of the respondents engage in research activities. This may be explained by the fact that 40.7% of the respondents practiced in teaching hospitals where research is mandatory. This may not be a positive finding, as research is essential for better understanding of the condition and ultimately care and prevention. On the contrary, a similar study among Nigerian practitioners showed that majority of the respondents engage in research activities.^[5]

Funding for cleft management is poor as only 34.1% of the respondents were currently enjoying financial support for treatment of their patients. The African environment with malaria, HIV-AIDS, and other major problems is such that cleft may not rank high on the list of health needs to enable it to receive any attention. In this survey, the greatest challenge facing cleft management was finance [71.5% of respondents] as most parents are

indigent and are unable to provide fund for treatment of the cleft child.

Sociocultural beliefs such as tracing the etiology of the condition to certain spiritual forces also constitute another challenge to cleft care in this part of the world.^[8,14]

Conclusion

Findings from this study have shown that interdisciplinary care for the cleft patient is not yet fully embraced in Africa. The result obtained also suggests that cleft care in African population is young and team care is perhaps many years behind the global trend. This may be a result of several reasons ranging from lack of sufficient specialists in African population generally to the relatively young age of cleft care practice in that part of the world.

Although there is sufficient patient population to maintain clinical expertise, especially in centers where cleft teams exist, there is still a need to encourage training of more personnel to optimize cleft care. There could be scarcity of certain specialists like orthodontists in most African setup generally speaking, but where such a specialist is available there appears to be a high chance of not being involved in cleft team care due to logistic problems. It may be necessary for several healthcare facilities to come together to form regional centers to be able to provide optimal care to the cleft patient.

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