

EVALUATION OF OROFACIAL CLEFT COMMUNITY AWARENESS STRATEGIES USED IN A TERTIARY HOSPITAL IN NIGERIA

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ABSTRACT

Objective: To evaluate the effectiveness of our awareness campaign strategies and identify the most effective strategy for our environment.

Design: This was a cross-sectional descriptive study using a 15-item interviewer-administered questionnaire.

Setting: The orofacial cleft clinic of a tertiary health institution in Lagos, Nigeria

Participants: The sample population was all consenting parents and adult patients attending the orofacial cleft clinic within the study period.

Main outcome measures: The primary outcome measures was the percentage contribution of the various outreach modalities to the source of referral to the clinic.

Results: A total of 107 respondents were recorded in this study. Forty-six percent of the respondents received information about the availability of treatment and referrals from the maternity centers where the child was delivered (45.8%, n = 49), while the media campaign contributed 13.1% to our patient referrals. Seventy percent (n = 75) of the participants lived within the state of Lagos. Eighty-five percent (n=91) utilized public transport for clinic visits. The median approximate distance travelled from their home to the clinic was 23 (IQR 11–42) km, with a range of 1.5–988 km. The median approximate cost of public transportation to the clinic from their homes was 2000 (IQR 1500–4375) Naira (~ 4 USD), with a range of 200–120,000 Naira (~ 0.4–250 USD) per visit.

Conclusion: The results of this study show that campaigns focused on maternity homes and peripheral hospitals appear to be the most effective strategy and the single largest source of referrals to our cleft care programme.

Keywords: Community awareness; Health campaign; Health promotion; Orofacial cleft

INTRODUCTION

Studies have identified lack of awareness of availability of treatment services as one of the most important barriers to cleft care in low- and middle-income countries. These studies have shown this to be one of the major factors responsible for late presentation^{1,2}. The prevalence of cleft lip and palate in Nigeria is estimated to be about 0.5 per 1000 live births³ and the incidence rate of orofacial clefts in individuals of sub-Saharan Africa origin ranges from 0.18 to 1.67 per 1,000 worldwide.⁴ Butali *et al.*^{3,5} has done substantial work to quantify the burden of orofacial cleft in Nigeria and Africa, however the problem of under ascertainment remains a significant challenge. This is because childbirth, especially in suburban and rural areas still occurs largely out of the formal hospital setting, in addition, the stigma associated with having a child with a birth deformity also hampers reporting⁶. Adebola *et al.*⁷, in their work on the impact of community mobilization and awareness campaigns on

orofacial cleft, argued that due to the anticipated disease burden of over 3000 infants born yearly with orofacial cleft in Nigeria, organizations involved in cleft care provision in Nigeria must take community mobilization and awareness seriously if the largely unmet needs of orofacial cleft patients in Nigeria are to be adequately addressed.

To tackle this issue of awareness, as a cleft care team situated in a metropolitan city, we conduct quarterly outreaches to suburban communities, primary and secondary level health facilities, and engage with community health extension officers at local government level within the state, along with social media campaigns and use of traditional media such as billboards, radio, and television to generate awareness about cleft lip and palate (CLP) and availability of comprehensive management at our center. These campaigns have been majorly within the last 5 years.

The aim of this study was to evaluate the effectiveness of our awareness campaign strategies with the specific objectives of identifying the medium by which information was obtained about availability of cleft care at our center, we also sought to identify the regions within and outside the state from which patients travel to the clinic, the approximate distance travelled and the approximate cost of travel per patients visit to the clinic.

METHODS

This was a cross-sectional descriptive study conducted at the cleft clinic of a tertiary health institution in Lagos, Nigeria. The institution is one of the main tertiary health centers in Nigeria and serves as a major referral center for the South-Western states. The cleft team carries out an average of four community awareness programmes per year targeted at communities in Local Government areas outside the Local government area where the hospital is located. In addition, the team also provides education on cleft care via social media weekly. With the support of our cleft care partner, about 6 billboards were erected at various strategic locations within the city. The clinic receives an average of 2 new cases per week, and between 60 and 80 cleft-related surgical interventions are carried out per year.

Approval for this study was obtained from the Ethics Committee of the Lagos University Teaching Hospital (ADM/DCST/HREC/APP/5196). Study data were collected between July 2022 and January 2023. All the patients (adults and parents of children) with cleft lip and palate presenting for consultation and follow-up within the study period were invited by the researchers

to participate in the study. Verbal informed consent was obtained from them. Data collection was done by the lead author using a face-to-face interviewer administered 15-item questionnaire. The questionnaire collected information on socio-demographic variables of the patients and respondents such as age, gender, type of cleft, Local Government Area, and State of residence etc. Further questions sought to obtain information on occupation and level of education of both parents, housing type, mode of transportation from the clinic, approximate cost of transportation, prior knowledge of orofacial cleft before having a child with cleft, how this knowledge was obtained, and how they knew about availability of treatment at our center.

Data collected were entered into Microsoft Excel sheet 2016 (Microsoft, Raymond, WA) for sorting and the approximate distance travelled from the participant home to the clinic was retrieved using google maps, an application which is commonly used and reliable for directions by residents within the city. Distance from standard routes only was used as most participants indicated they used public transport.

Data were subsequently transferred to Statistical Package for Social Sciences Software for Windows (IBM SPSS® Statistics for Windows, Version 26.0. Armonk, NY: IBM Corp) for analysis. Descriptive analysis of collected data was done to derive means, median and percentages.

RESULTS

A total of 107 respondents were recorded in this study comprising parents of children with cleft lip and palate

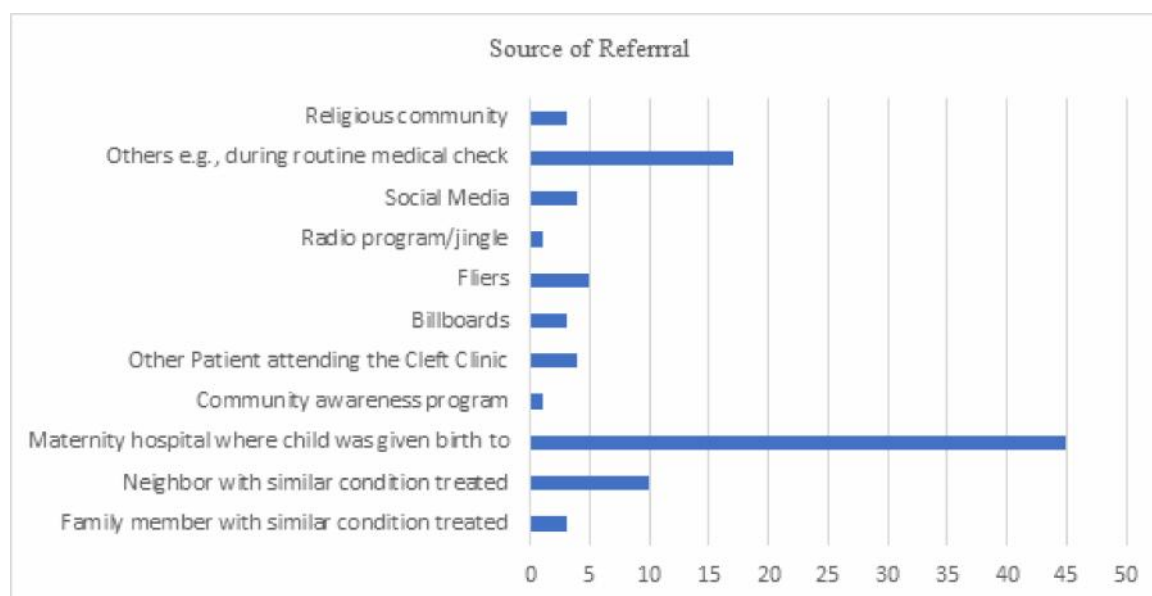


Figure 1: Source of patient referral to the clinic

and adult patients with cleft lip and palate. Median age of patients with cleft in this study was 3 (IQR 0.42 – 9.0) years, 63.6% (n=68) were females, 52.3% (n=56) had cleft lip and palate, 29% (n=31) had cleft palate only and 17.8% (n=19) had cleft lip and alveolus only. However, the mean age of the parents who participated was 35.6 (SD 9.5) years. Majority (70.1%, n=75) of the respondents lived within the state of Lagos.

Only 9 (8.4%) of the parents had knowledge of cleft before they had a child with cleft, 4 of the 9 (44.4%) was because they had a family member with similar condition. Most of the respondents received information about treatment and consequent referral from maternity hospital where child was delivered (45.8%, n= 49) (Figure 1).

About Forty-seven percent lived in a single room housing (n=50) and about 42.1% (n=45) in multi room rental flat/condo style housing, and 11.2% (n=12) were homeowners. Eighty five percent (n=91) utilized public transport for clinic visits. Median of approximate distance travelled from their home to the clinic was 23 (IQR 11 – 42) Km, with a range between 1.5 – 988 km. Median of approximate cost of public transportation to the clinic from their homes was 2000 (IQR 1500 – 4375) Naira (~ 4 USD), with range between 200-120,000 Naira (~ 0.4 – 250 USD) per visit.

DISCUSSION

The objective of this study was to identify the most effective cleft awareness strategy in our local environment, and the result shows that campaign focused on maternity homes/mother and child hospitals/primary and secondary level hospitals, traditional birth attendants, and community health extension workers who are likely to be the first contact for parents who give birth to a child with orofacial cleft appears to be the most effective strategy as the data shows that this group is the single largest source of referrals to our cleft care programme. Hence this group are the ‘champions and early adopters’ of the campaign message and will likely carry on the awareness in the community.

The management of orofacial cleft in Nigeria is largely at no direct cost to the patients or caregivers, as the financial implications of treatment in many cleft care centers in Nigeria is offset through grants provided by non-governmental organizations such as the Smile Train, a US based charity focused on providing free care for children born with cleft lip and palate. With the financial burden of care out of the way, the next major challenge is to get the individuals who need the

care to be aware of the availability of the no cost treatment and help them overcome other barriers to accessing the care. Adebola *et al.*⁷, in their work on the impact of community mobilization and awareness campaigns on orofacial cleft, observed that aggressive awareness campaigns were responsible for the comparatively high number of orofacial cleft repairs performed by Non-Governmental Organizations in Nigeria as compared to government institutions such as Teaching Hospitals/Medical Centers. They argued that all organizations involved in cleft care provision in Nigeria must take community mobilization and awareness seriously if the largely unmet needs of orofacial cleft patients in Nigeria are to be adequately addressed.

Raising awareness is a means of delivering information about a specific need or service to a target audience⁷. In this case it would involve targeted information delivery about aetiology, predisposing factors, identification and early care for CLP and availability of treatment services to communities, especially suburban and rural areas where children born with this condition may not have the opportunity for early intervention due to ignorance of the parents and community, cultural beliefs, or lack of adequate access to health care facilities. Schwarz and Khadka² reported that the main reasons for late presentations of cleft lip and palate patients in Nepal were lack of knowledge of availability of services (31%), lack of services near at hand (29%), lack of finance (24%) and lack of time (13%). Similarly, Adeyemo *et al.*¹ in their study on reasons for late presentation of patients for orofacial cleft repair in a tertiary hospital in Lagos, Nigeria, also reported lack of awareness of treatment availability (13.5%) has one of the reasons for late presentation. Hence, in low- and middle-income countries, the targeted awareness campaigns about the availability of treatment for orofacial cleft in places where such treatments are available, remains an important tool to overcoming one of the most important barriers identified to receiving cleft care; which is ignorance of the availability of care.

Identifying the target audience is one of the important steps in creating an effective awareness campaign⁸, and the result of this study has helped us identify the most productive category of people with respect to referrals. Traditional mass media campaign is relatively expensive, the cost of paying for advertising and erecting billboards, creating radio and television jingles, and even social media campaigns in low- and middle-income countries relative to available resources is high. The results of this study has shown that these strategies contributed only 13.1% to our patient referrals. A previous study⁹ from our center has shown that internet

and social media use as a source of information for treatment for cleft lip and palate by parents and caregivers of children with cleft lip and palate is still relatively low in our local environment, hence it is not surprising that this strategy contributed little to our patient referrals (4.7%). However, it can also be argued that use of mass media strategies, although relatively expensive, helps to cast a broad net for patient harvest, especially for school aged children and adult cases who did not receive treatment in infancy or received suboptimal care. On the other hand, maternity homes and hospitals remains the first point of contact for parents of newborn babies as reflected in this study.

Our patients travel an average of 23km on a one-way trip to the clinic with a range extending as far as over 988km outside the state. In a city like Lagos, Nigeria, a trip of 23km can take several hours due to traffic congestion and a relatively inefficient public transport system, hence it takes considerable effort and willpower to undertake such trips on a regular basis for consultation and follow-up. Yet anecdotal evidence has shown that our loss to follow up is minimal, this is evidenced by patients returning for regular follow-up visits and other services after the surgical repair such as speech therapy (which involves weekly visits) and orthodontic treatment. We can then argue that overcoming the barrier of ignorance of availability of cleft care, with no direct financial implications to the caregivers, is a very important factor to reducing the burden of actual and projected unmet cleft care need in our local environment. Participants who travelled to the clinic from outside the state of Lagos, did so mostly from states within the southwestern region of Nigeria, which is within the catchment area of our hospital.

We recognize the limitation posed by lack of previous data, which can be used as baseline data to compare with this current result, notwithstanding, this current data will help us and other cleft care providers in our region and other low- and middle-income countries reevaluate and possibly prioritize the target audience for our campaign strategies.

CONCLUSION

The results of this study show that campaigns focused on maternity homes and peripheral hospitals appear

to be the most effective strategy and the single largest source of referrals to our cleft care programme. We recommend that campaign resources be focused on places of child delivery and health care workers involved, who are likely to be the first contact with the parents of children with cleft lip and palate.

REFERENCES

1. **Adeyemo WL**, Ogunlewe MO, Desalu I, *et al.* Cleft deformities in adults and children aged over six years in Nigeria: Reasons for late presentation and management challenges. *Clin Cosmet Investig Dent.* 2009;1:63–69.
2. **Schwarz R**, Khadka SB. Reasons for late presentation of cleft deformity in Nepal. *Cleft Palate Craniofac J.* 2004;41:199–201.
3. **Butali A**, Adeyemo WL, Mossey PA, *et al.* Prevalence of orofacial clefts in Nigeria. *Cleft Palate-Craniofacial Journal.* 2014;51(3):320–325.
4. **Vanderas AP.** Incidence of cleft lip, cleft palate, and cleft lip and palate among races: a review. *Cleft Palate J.* 1987 Jul 1;24(3):216–225.
5. **Butali A**, Mossey PA. Epidemiology of orofacial clefts in Africa: Methodological challenges in ascertainment. *Pan Afr Med J.* 2009; 2(5):5.
6. **Adeyemo W**, James O, Butali A. Cleft lip and palate: Parental experiences of stigma, discrimination, and social/structural inequalities. *Ann Maxillofac Surg.* 2016;6(2):195.
7. **Adebola RA**, Bamgbose BO, Adeoye JB. Community Mobilization and Awareness Creation for Orofacial Cleft Services: A Survey of Nigerian Cleft Service Providers. *Int Sch Res Notices.* 2014 Sep 24;2014:1–10.
8. WHO. MODULE 13-Effective Public Health Campaigns Module Overview [Internet]. [cited 2023 May 5]. Available from: <https://www.who.int/about/communications/principles>
9. **Adekunle AA**, James O, Adeyemo WL. Health Information Seeking Through Social Media and Search Engines by Parents of Children With Orofacial Cleft in Nigeria. *Cleft Palate-Craniofacial Journal.* 2020;57(4):444–447.