

Awareness, knowledge and attitude on cleft lip and palate among antenatal clinic attendees of tertiary hospitals in Nigeria

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Abstract

Background: Adequate knowledge and awareness of cleft lip and palate (CLP) deformity may help to counter the negative beliefs and attitudes toward the condition. The objective of this study was to assess the level of awareness, knowledge and attitude of women attending antenatal clinics about CLP.

Materials and Methods: A cross-sectional descriptive study with the aid of a structured interview administered questionnaire was conducted among 200 women attending antenatal clinics in three Federal Government Teaching Hospitals in the Northern and Southwestern regions of Nigeria. The main outcome measure was the level of awareness and the mean cumulative knowledge score.

Results: The mean age of the subjects was 28.9 ± 5.1 years (age range: 16-42 years). Half of the women (50.5%) reported that they had seen or heard about CLP. The mean cumulative knowledge score was 6.9, with only 19.8% having adequate knowledge. Many respondents had neither read an article on CLP nor participated in any public enlightenment program, and 31.5% indicated that they would like to know more about the condition. Level of educational attainment had a statistically significant effect on the level of awareness and knowledge on CLP, as more educated respondents tend to be more aware and knowledgeable ($P < 0.001$).

Conclusion: There is need for increased public enlightenment/health education to increase awareness and subsequently help develop more positive attitudes toward children with CLP. Such programs should include distribution of pamphlets on CLP at clinics, especially antenatal clinics, media campaigns on radio, TV and newspaper as well as establishment of cleft support groups by the relevant governmental and professional organizations.

Key words: Antenatal clinics, awareness, cleft lip, knowledge, pregnant women

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Introduction

Cleft lip and palate (CLP) is a relatively common congenital cranio-facial developmental malformation.^[1] The birth of a congenitally deformed baby is usually unexpected and provokes mixed feelings of shock, shame, anxiety, confusion, guilt, inadequacy, rejection, depression, disappointment, anger, hopelessness and stigmatization for the parents, especially the mother.^[2] These emotional reactions reflect

the pervasive negative beliefs and practices about CLP based on cultural, religious and socio-economic diversities in many communities.^[3-6] Anecdotal observations about the high incidence of adult/unoperated cleft^[7] may seem to suggest a low level of awareness, which may lead to extreme reactions such as infanticide.^[8-9]

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Perception of nature and vulnerability to illness and disease is one of the determinants of attitude and the subsequent actions. The parent's feelings about their child's cleft defect depend partly on their previous knowledge and awareness about the condition as well as their strength of character and philosophy of living.^[1]

Health education has been recognized and widely used to modify health-related behavior. Health education attempts to change behavior by altering an individual's knowledge, attitudes and beliefs about health matters.

Because cleft is preventable^[7] to some extent, and surgical correction (mostly sponsored by many charitable organizations) can largely achieve return to normalcy and satisfactory quality of life, adequate knowledge and awareness about the causes, treatment and prevention of CLP may help to counter the negative beliefs and attitudes toward the condition and even reduce the incidence of cleft. Parents' knowledge about the cleft may likewise promote better health-related behavior in their child by increasing the understanding about the condition.

Given the important role of parents, especially mothers, in the management of CLP and the paucity of data on the level of awareness among this target group, this study has been undertaken among pregnant women attending ante-natal clinics in Nigeria to assess their level of awareness, knowledge and attitude about CLP.

Materials and Methods

This is a cross-sectional descriptive study that was undertaken on 200 pregnant women attending the antenatal clinics in Obafemi Awolowo University Teaching Hospitals Complex Ile-Ife, University College Hospital, Ibadan and University of Maiduguri Teaching Hospital; three Federal Government Teaching Hospitals in Northern and Southwestern part of Nigeria serving as referral centers for most hospitals within and outside their states of location.

A convenient sample of 200 respondents was selected after obtaining informed consent. Ethical approval was obtained from the relevant bodies prior to commencement of the study.

The tool for data collection was structured researcher administered questionnaire. The questionnaire elicited information with regard to the demographic characteristics of the respondents as well as their attitude, knowledge and level of awareness about causes and treatment of CLP. Furthermore, 20 items of the questionnaire were selected to test knowledge. Knowledge score was computed. The knowledge variable was dichotomized as a correct or incorrect answer. Incorrect answers were deemed as incomplete, incorrect and don't know answers. A score of

1 and 0 was allocated to every correct and incorrect answer, respectively, with maximum and minimum obtainable scores being 20 and 0, respectively. A score less than 50% was deemed to be inadequate knowledge while a score greater than or equal to 50% was considered to be adequate knowledge.

Descriptive statistics was used to describe the sociodemographic characteristics of the respondents and the results were expressed as frequencies and percentages in tables and charts. Statistical significance was inferred at $P < 0.05$.

Bivariate analysis was used to identify significant determinants of the respondent's knowledge in the various domains of demographic variables using the Mann-Whitney U test, Fisher's exact test or the Chi squared test where appropriate. All statistical analyses were performed with Stata version 11.0 (Statacorp, College Station, TX, USA).

Results

Two hundred pregnant women were recruited to the study. The mean age of the subjects was 28.9 ± 5.1 years (age range: 16-42 years). Majority of the women (60.5%) were Muslims, while the remaining (39.5%) were Christians. Fifty-five percent of the respondents were traders, 38.5% were civil servants and 6.5% were students. Table 1 summarizes the demographic characteristics of the subjects.

Half of the women (50.5%) reported that they had seen or heard about CLP. Of the women who claimed to have heard of CLP, however, only 19.8% correctly identified cleft as defect of the lips [Table 2]. The most common source of information on cleft as quoted by the

Table 1: Demographic characteristics of subjects (n=200)

Variable	n (%)
Mean age (years)	28.9 ± 5.1 years
Age range	16-42 years
Religion	
Christianity	79 (39.5)
Islam	121 (60.5)
Occupation	
Trader	110 (55.0)
Civil servant	77 (38.5)
Student	13 (6.5)
Education	
No formal	58 (29.0)
Some primary	37 (18.5)
Complete primary	21 (10.5)
Some secondary	12 (6.0)
Complete secondary	14 (7.0)
Tertiary	58 (29.0)

Table 2: Awareness and knowledge of cleft lip (n=101)

Variable	n (%)
Ever heard about cleft lip	
Yes	101 (50.5)
No	99 (49.5)
Ever seen cleft	
Yes	100 (50.0)
No	100 (50.0)
Sources of information about cleft	
Family members	63 (62.4)
Casual meeting	14 (13.9)
Media	9 (8.9)
Hospital	7 (6.9)
Neighborhood	3 (3)
School	3 (3)
Market place	2 (2)
What is cleft?	
Don't know	37 (36.6)
Opening of lips	44 (43.6)
Defect of lips	20 (19.8)
Total	101 (100.0)
Knowledge %	
<50	81 (80.2)
≥50	20 (19.8)
Total	101 (100.0)

respondents was from family members (62.4%), followed by casual meeting (13.9%), media (8.9%), hospital (6.9%), neighborhood (3%), school (3%) and market place (2%).

The mean cumulative knowledge score was 6.9 ± 2.3 , with only 19.8% having adequate knowledge. Table 2 summarizes the level of awareness and knowledge of the respondents. Many respondents had neither read an article on CLP nor participated in any public enlightenment program, and 32.3% indicated that they would like to know more about the condition [Table 3].

Bivariate analysis of the relationship between the selected socio-demographic characteristics of the women and awareness is summarized in Table 4. Level of educational attainment and age ≥ 25 years had a statistically significant effect on the level of awareness and knowledge about CLP, as higher levels tend to be more aware and knowledgeable ($P < 0.001$). There was no significant relationship between level of awareness and religion or occupation.

Discussion

CLP is preventable to some extent, and its surgical correction can largely achieve return to normalcy and satisfactory quality of life. Therefore, adequate knowledge and awareness about the causes, treatment and prevention of CLP may help to counter the negative beliefs and

Table 3: Percentage of respondent that participated in enlightenment program and who like to know more

Variable	n (%)
Ever participated in a public enlightenment program	
Yes	19 (9.8)
No	164 (84.5)
Don't know	11 (5.7)
Total	194 (100)
Like to know more	
Yes	62 (32.3)
No	123 (64.1)
Don't know	7 (6.1)
Total	192 (100)

Table 4: Bivariate analysis of the association between selected sociodemographic characteristics of the pregnant women and awareness

Variable	Sociodemographic awareness		P characteristics
	Yes (%)	No (%)	
Age			
24 and below	9 (26.5)	25 (73.5)	$X^2=9.46$ df
25 and above	92 (55.4)	74 (44.6)	0.002
Occupation			
Trader	53 (48.2)	57 (51.8)	3.84 df
Civil servant	39 (50.6)	38 (49.4)	0.357
Student/corper	9 (69.2)	4 (30.8)	
Education			
None	23 (39.7)	35 (60.3)	
Primary	36 (62.1)	22 (37.9)	
Secondary	7 (26.9)	19 (73.1)	
Tertiary	35 (60.3)	23 (39.7)	

attitudes toward and even reduce the incidence of cleft. Parents' knowledge about the CLP may likewise promote better health-related behavior in their children.

Half of the respondents in this series had seen or heard about CLP, which was not surprising because the study was carried out in locations with big university teaching hospitals treating CLP.

However, most respondents did not know the cause, the appropriate time of treatment and whether CLP could be prevented. Similarly, significant knowledge gap was observed in the other items used to test knowledge, as reflected in the low mean cumulative knowledge score and higher percentage with inadequate knowledge.

Poor knowledge about CLP has been reported in many rural and urban Asian^[3-4,6] and African^[7] populations. Lack of knowledge of availability of repair is the most common cause of late presentation in Nepal.^[10] Cultural and religious factors affect perceptions and knowledge, with many ascribing the cause to superstitious beliefs.^[5,11]



Figure 1: Cleft lip

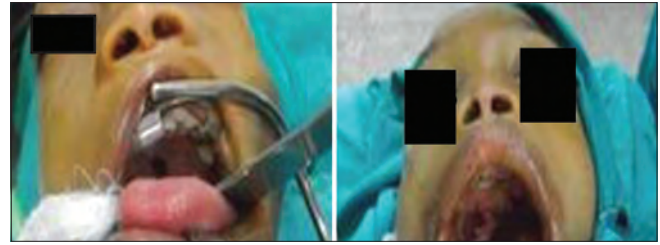


Figure 2: Cleft palate

We selected 20 items of the questionnaire to test knowledge in an attempt to obtain a more accurate level of knowledge. Studies that have reported a higher level of awareness have not comprehensively assessed knowledge.^[12] This study demonstrated that variations exist between the level of awareness and knowledge. We opined that using scored multiple items to test knowledge gives a more accurate index of knowledge. More studies with a larger sample will be required to validate the cumulative knowledge score.

Disproportionately lower cumulative knowledge score when compared with level of awareness may suggest inefficiency of the existing public enlightenment programs via mass media sponsored by governmental and non-governmental organizations. The antenatal health talks/counseling sessions received by the respondents appeared not to have improved the knowledge about CLP, probably because such sessions are not specifically targeted to CLP and the hurried schedule of such sessions. Of note is the strong association between level of education and level of knowledge demonstrated in this study. This may suggest that those with a higher level of education are more likely to grasp concepts easily.

In this series, data analysis was limited to respondents who indicated awareness for obvious reasons. This further reduced the sample size, and should be taken into consideration in interpreting these results.

Conclusion

Antenatal clinic attendees in all three tertiary hospitals studied had important knowledge gaps about CLP. This limited knowledge poses significant barriers to care. Mass media campaigns could improve knowledge and level of awareness. There is need for increased public enlightenment/health education to increase awareness and subsequently help develop more positive attitudes toward children with CLP. Community health and ante-natal nurses should be encouraged to include more information about

CLP. Pamphlets on CLP should be distributed at clinics, especially at antenatal clinics. Media campaigns on radio, TV and newspaper as well as establishment of cleft support groups by the relevant governmental and professional organizations should be embarked upon.

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