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Self-Reported Dental Clinic Visits of Adolescents in Nigeria Rural Communities

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ABSTRACT

Background: The health care utilization of a rural or urban population is dependent on their health seeking behaviour, which are activities carried out to maintain good health, to prevent poor health or any departure from a good state of health.

Objective: To determine the self-reported dental clinic visits of adolescents in south eastern Nigerian rural areas.

Methodology: A secondary data analysis was done. The primary data was obtained from a cross-sectional study that recruited 272 children from a rural public technical college and three public secondary schools selected in Nkanu–West and Udi local Government Area of Enugu State respectively. Socio-demographic data (age, sex, socio-economic status) was obtained using semi-structured questionnaire. Information on dental clinic visit was obtained by self- administered questionnaire. Data were analysed using SPSS Version 25 .P values < 0.05 were accepted as being statistically significant. Frequency distribution and standard deviation were calculated. Test of association between gender, age and socio-economic status with dental clinic visits were conducted using Fisher exact test.

Results: A total of 129 (47.4%) males and 143 (52.6%) females participated in this study. The prevalence of dental clinic visits was 1.8%. Dental clinic visit was higher among females than males. There was no statistically significant association between sex (P = 0.37), age (P= 0.40) and dental clinic visit. The association between socio-economic status and dental clinic visit was statistically significant. P<0.001 **Conclusion**: The self-reported dental clinic visits of adolescents in this study were low. Regular visit to dental clinic is recommended

KEYWORDS: Community, Clinic, Dental Care, Rural , Oral health

INTRODUCTION

The health care utilization of a rural or urban population is dependent on their health seeking behaviour which may be influenced by physical, socio- economic, environmental, political, and socio cultural factors.[1] Place of residence, household educational level, poor perception of the importance of oral health, level of awareness of existing oral health services and attitude towards dental care can affect the use of oral health care services.[2-5] Socio economic status, proximity to oral-healthcare facilities, household income, gender, availability of health insurance and cost of oral care can also affect use/utilisation of oral health care services.[1-5] In Nigeria, previous study reported that 21.0%[6] of 12 -15 years old school children had visited a dental clinic for oral health services. In south-east Nigeria, among study participants in rural communities, 20.9%[3] and 23.9%[5] had visited a dental clinic for oral health services. Epidemiological studies on level of dental clinic visits of Nigerian children in rural areas will serve as a baseline for planning oral health promotion activities towards improving the oral health care seeking behaviours of the population in rural or underserved areas. It will also add to the existing literature. The aim of this study is to determine the self-reported dental clinic visits of adolescents in south eastern Nigerian rural areas.

METHODS

This was a secondary data analysis. The primary data recruited 272 children in 2024, to assess traumatic dental injury among school children attending public technical college and public secondary school in rural communities in south-east Nigeria. The Local Government Areas and schools were selected by convenient sampling. Informed consent was obtained from the parents of the school children and assent was obtained from the school children.

The school children were randomly (simple random sampling) selected in each school.

The sample size for this study was calculated using the formula :

$N = Z^2pq^7 / d^2$

N = sample size, p = prevalence, q= 1.0-p

The sample size was calculated using the following values:

Prevalence of dental clinic visits was 4.3 % from a previous study[4] in Nigeria

confidence interval 95% (z = 1.96), d= Margin of Error tolerated, 5% (0.05), p= 0.043, q= 1.0-p = 0.957,z = 1.96,d= 0.05

N = 1.96x1.96x 0.043 x0.957 / 0.0025 = 63.2 (63 approximately)

10% of non- responders = 6

63 +6 = 69 per LGA; 69 x 2 =138.

But the data of 272 children were available.

Socio-demographic data (age, sex, socio-economic status) was obtained using semi-structured questionnaire. Socio-economic status was determined by a criteria used in a previous study[8] and socio-economic status designation combines father's occupation with the mother's level of education . Information on dental clinic visits was obtained by self- administered questionnaire The inclusion criteria was children aged 12–15 years old, attending public technical college and public secondary school in selected rural areas and whose parents had given consent to participate in the study, while the exclusion criteria was children who refused to participate in the study or were absent from the school at the time of study/data collection.. Data were analysed using Statistical Package for Social Sciences (SPSS) Version 25 (SPSS Inc., Chicago, Ill., USA).P values < 0.05 were accepted as being statistically significant. Frequency distribution, percentage, mean and standard deviation were calculated. Test of association between gender, age and socio-economic status with dental clinic visits were conducted using Fisher exact test.

RESULTS

A total of 129 (47.4%) males and 143 (52.6%) females participated in this study. The age range of the children was 12 to 15 years with mean age of 13.5 ± 1.1 years.

Table 1: Profile of the study participants N=272

Variables	Frequency (n)	Percentage (%)
Age (years)		
12	66	24.3
13	67	24.6
14	71	26.1
15	68	25.0
Sex		
Male	129	47.4
Female	143	52.6
Socio-economic Status		
Low	233	85.7
Middle	39	14.3
Dental Visit		
Yes	5	1.8
No	267	98.2

The prevalence of dental clinic visits was 1.8%. Dental clinic visits was higher among females than males, children from middle socio-economic status and 14 years old children. There was no statistically significant association between sex (P = 0.37), age (P= 0.40) and dental clinic visit. The association between socio-economic status and dental clinic visit was statistically significant. P<0.001 The reasons for dental clinic visits among adolescents in this study was for symptoms management/curative reasons.

DISCUSSION

Healthcare seeking behaviour (HSB) is, any activities, action or inaction, taken by individuals who believe that they have a health problem or health need or believe that they are sick.[9] It includes activities carried out to maintain good health, to prevent poor health, or any departure from a good state of health. The level of the family income, parents oral health care seeking behaviour, accessibility to oral health facility and availability[10] of health insurance for preventive and curative dental services can affects adolescents use of dental care[1]. Individuals who have access to oral health care are more likely to receive oral health education on oral health risks behaviours[11], more likely to have oral diseases detected in the earlier stages and receives oral health preventive and curative services early. This study provides information on the self- reported dental clinic visits in a selected sample of 12 to 15 years old in selected rural communities in Enugu, South-Eastern part of Nigeria.

In this study, 1.8% of adolescents reported to had visited a dental clinic for oral health services. This finding was close to previous study of 4.3%[4] among 8-11 years old children and less than previous studies of 21.0%[6] and 27.9%[1] of adolescents who had visited a dental clinic. This variation in study findings could be as a result of socio-cultural factors, family income[1-2,4] , perceived/felt needs for preventive or curative dental services, proximity to oral-healthcare facilities, level of awareness of preventive and curative services offered in dental clinic, parental beliefs or attitude towards dental care, availability of health insurance for dental services and level of awareness of benefits of visiting a dental clinic for preventive or curative services among parents and family relatives. Dental visits was more in females and the findings was consistent with reports of previous studies[1,6] .The study participants of this study were selected from public schools, there could be marked or slight variation in self -reported dental clinic visits among adolescents when participants are selected from both public and private schools or seen during a household survey in the selected rural areas.

CONCLUSION

The self-reported dental clinic visits of adolescents in this study were low. Oral health promotion and awareness activities among parents, guardians and adolescents on the benefits of visiting dental clinic is recommended.

LIMITATIONS

This study has a few limitations. It is based on secondary data originally collected for a different objective, which may not fully capture all factors influencing dental visits. The use of convenient sampling limits generalizability, and the reliance on self-reported data may introduce recall bias. Additionally, the low number of adolescents who reported dental visits reduced the statistical power. Important factors like parental attitudes, proximity to dental facilities, and health insurance status were not assessed.

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CONFLICT OF INTEREST: The authors declare no conflict of interest.

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DATA AVAILABILITY STATEMENT: The data presented in this study are available on reasonable request from the corresponding author.

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