

Perception of Health Needs Among Adolescents Attending the Out-Patients' Clinics of a Tertiary Hospital in South-West Nigeria

Agbesanwa TA¹, Fatunla OA², Awoleke JO³, Aina FO¹, Babatola AO², Fadare JO⁴, Olusola AE¹, Olatunya OS².

¹Department of Family Medicine, Ekiti State University, Ado Ekiti, Nigeria

²Department of Paediatrics, Ekiti State University, Ado Ekiti, Nigeria

³Department of Obstetrics and Gynaecology, Ekiti State University, Ado Ekiti, Nigeria

⁴Department of Pharmacology and Therapeutics, Ekiti State University, Ado Ekiti, Nigeria

Corresponding Author's Email: tosinagbesanwa@gmail.com

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Abstract

Introduction

Adolescents are individuals aged 10 to 19 years. In Nigeria, adolescents make up about 22% of the population. The health needs of adolescents differ with culture, geographical location, climate changes and other factors. The inclusion of adolescents' expectations and perspectives in the planning process of their health programmes may increase the uptake of adolescent health services. This study assessed the perceived priority health needs of adolescents who seek care at the out-patients' departments (OPD) of the Ekiti State University Teaching Hospital (EKSUTH), Ado-Ekiti.

Methods

This was a hospital-based cross-sectional study conducted among adolescents, aged 10 to 19 years, who visited the General and Paediatrics OPDs of EKSUTH between August and November 2019. Adolescents who were married, had learning disabilities or critically ill were excluded. Self-administered questionnaires were used.

Results

Two hundred and ninety respondents completed the questionnaire with more females (163; 56.2%) and those from high socioeconomic class (128; 44.1%). Infectious diseases and sexual and reproductive health (SRH) were ranked highest as health priorities by 103 (35.5%) and 87 (30.0%) participants respectively followed by mental health and chronic illnesses. The health needs of least priority were substance abuse, nutritional challenges and physical challenges/disability.

Conclusion

This study highlights the most important health needs of adolescents attending this tertiary facility. The information from this study may assist healthcare authorities to adequately plan adolescent health programs in this setting.

Keywords: Perception, Adolescents, Health Needs, Tertiary healthcare facility, Ekiti State

Introduction

Adolescents are individuals aged 10 to 19 years^{1,2}. According to the World Health Organization (WHO), there are about 1.2 billion adolescents worldwide¹ and they make up about 22% of the population of Nigeria³. The United Nations Children's

Fund (UNICEF) further classifies adolescence into early adolescence (10 – 13 years), middle adolescence (14 – 16 years) and late adolescence (17 – 19 years)². The period of adolescence is characterized by rapid physical, psychosocial, cognitive and emotional development as well as sexual and reproductive maturation⁴. Some of the challenges of

adolescence include those related to sexual and reproductive health, mental health, substance abuse among others^{2,5-7}. The health needs of adolescents may be peculiar to each community; differing with culture, geographical location, climate changes and other factors².

Notwithstanding, to address some of these health needs, several adolescent health programs such as youth development programs, sex education school programs and clinical health services have been instituted among others⁵. In spite of these, adolescent health programmes, about 3000 adolescents die every day globally, mostly from preventable causes including road injuries, HIV/AIDS and pregnancy-related deaths^{1,4}. Some of these programmes might have failed because the views of the adolescents were not sought to prioritize and allocate health resources needed to meet their needs⁸. Studies have reported that most adolescents feel that health services being rendered to them do not correspond to their actual needs⁸⁻¹⁰.

The WHO and other United Nations (UN) partners launched an initiative called Accelerated Action for the Health of Adolescents (AA-HA) in 2017 to guide country programs towards effective health service delivery to adolescents¹. This initiative advocates the inclusion of adolescents' expectations and perspectives in the planning process of their health programmes as this may increase the uptake of services by adolescents^{1,2,8}.

In Nigeria, there is a national policy on adolescent health and development, however, most of the adolescent health services rendered are often incorporated into the general or pediatrics out-patients' departments (OPD) of tertiary healthcare facilities while some facilities lack these services¹¹⁻¹³. In most instances, sexual and reproductive health (SRH) is the emphasis of adolescent healthcare and this is often at the detriment of other aspects of healthcare. Estimates show that only about 10% of Nigerian adolescents utilize these services in some parts of the country^{3,11,14-16}. These observations raised the need to explore what adolescents consider as their priority health needs and to study the association of the characteristics of adolescents with their ranking of health needs, as this will foster designing effective adolescent health service delivery.

This study aimed to assess the perceived health needs of adolescents who seek care at the OPD of the Ekiti State University Teaching Hospital (EKSUTH), Ado-Ekiti and what they considered as priority among their health needs.

1. Methods:

This was a hospital-based cross-sectional study conducted among adolescents, who presented at the General and Paediatrics OPDs of EKSUTH between August 1st to November 30th, 2019. The General OPD (GOPD) offers services to individuals aged 16 years and older while the

Children OPD (CHOPD) caters for the health needs of children between 10-16 years, Both OPDs had attended to 1848 adolescents aged 10-19 years over the preceding 12 months, accounting for about 10% of patients, with an average of 154 adolescents per month.^{17,18} The OPDs are staffed with relevant healthcare professionals and are usually the first point of contact for most patients attending the EKSUTH from where they are sorted and referred to different levels of cares by specialized professionals.

2.1 Sampling technique, participants' recruitment and data collection: The sample size was calculated with the Raosoft® software, a sample size calculator.¹⁶ The following assumptions were used in arriving at a sample size of 283 (response distribution was 10%, with a margin of error of 4%, a confidence level of 96% and an additional 20% to allow for attrition). The study participants were adolescents aged 10-19 years attending the OPDs during the study period. Those who were married, had learning disabilities or were critically ill were excluded. Participants were selected by systematic random sampling. The sampling frame was calculated by dividing the total number of adolescents expected to visit the OPDs over the four-month study period by the sample size required for the study; that is (154 adolescents x 4 months) / 283 adolescents required. Hence every other adolescent who met the inclusion criteria was selected for the study. The choice of the first respondent was made with the toss of a coin.

The survey was conducted using standardized self-administered questionnaires. The questionnaire was developed from existing literatures on perception of health needs among adolescents. It included four sections which are enquiry on the personal data of the adolescent, parents' data, their perceived health needs and the health challenges that they considered the most important. The study instrument was pre-tested and adjustments were made based on findings from the preliminary study before they were used for the study.

2.2 Ethical considerations: The purpose of the study was explained to the participants in English language and only those who gave consent and assent as appropriate, were recruited for the study. Parental/caregivers' consents were obtained for those who were younger than 18 years. Refusal to participate in the study did not affect the care given the adolescents who presented for care at the clinics as all received the same standard care. The Research and Ethics Committee of EKSUTH gave approval for this study.

2.3 Data stratification and statistical analysis: Data collected were cleaned, analyzed using the Statistical Package for Social Sciences (SPSS) software; version 25 and displayed on tables. The participants were sub-grouped as early adolescents (10-13 years), middle adolescents (14-16 years) and late adolescents (17-19 years) as classified by the UNICEF.² Socioeconomic status was determined using Oyedeki classification system,¹⁹ which uses the formal educational attainment and occupation of parents. The mean of the four

scores (two for the father and two for the mother) to the nearest whole number is the social class assigned to the family. There are five classes in the system and social class I-II classified as high socioeconomic class, III as middle socioeconomic class and IV and V as low socioeconomic class.¹⁹ Median with interquartile range (IQR), proportions and percentages were also determined. Tests for association between the participants' characteristics and the ranking of their health needs were assessed using the Chi-square (χ^2) test. The level of significance was p-value of less than 0.05

Completed questionnaires from 290 participants were collated and analyzed. The median (interquartile range) age was 15 (12 – 19) years. There were 110 (37.9%) early adolescents, 52 (17.9%) middle adolescents and 128 (44.1%) late adolescents as shown in Table Ia above.

There were slightly more females (163; 56.2%), and majority belonged to the Yoruba ethnic group (241; 83.1%). Overall, (128; 44.1%) and (101; 34.8%) belonged to high socioeconomic class and were students of tertiary institutions respectively. The sociodemographic characteristics of the participants are displayed in Table I.

Fourteen of the participants were no longer schooling as at the time of the study period. Two of these were early adolescents, one middle adolescent and the others were late adolescents. Seven of them were sales representatives.

Table Ia: Sociodemographic characteristics of the respondents

CHARACTERISTICS	FREQUENCY(%)
Age group	N=290
Early Adolescents (10 – 13 years)	110 (37.9)
Middle Adolescents (14 – 16 years)	52 (17.9)
Late Adolescents (17 – 19 years)	128 (44.1)
Sex	N=290
Male	127 (43.8)
Female	163 (56.2)
Ethnic group	N=290
Yoruba	241 (83.1)
Igbo	34 (11.7)
Hausa	2 (0.7)
Others*	13 (4.5)
Socioeconomic status of parents	N=290
High	128 (44.1)
Middle	66 (22.8)
Low	96 (33.1)
Current level of Education	N=290
Primary	8 (2.8)
Junior Secondary	88 (30.3)
Senior Secondary	79 (27.2)
Tertiary	101 (34.8)
Not in school	14 (4.8)
Adolescents not in school	N=14
Artisan/Apprentice	4 (28.6)
Sales Representative	7 (50.0)
Baby-sitter/Nanny	2 (14.3)
Attended O'level coaching lesson	1 (7.1)

Table 1b: Health areas perceived as priority among participants.

MOST IMPORTANT HEALTH AREAS	ADOLESCENT AGE GROUP*			TOTAL (% of N) N=290	χ^2	P value
	(% of n)					
	Early n=110	Middle n=52	Late n=128			
Sexual and Reproductive Health						
Menstrual challenges	28 (25.5)	13 (25.0)	47 (36.7)	88 (30.3)	19.9	0.003
Use of contraceptives	18 (16.4)	8 (15.4)	20 (15.6)	46 (15.9)	22.2	0.001
STI prevention/treatment	24 (21.8)	19 (36.5)	40 (31.3)	83 (28.6)	19.0	0.004
Treatment of sexual abuse	36 (32.7)	9 (17.3)	36 (28.1)	81 (27.9)	17.2	0.009
Mental Health						
Depression	35 (31.8)	22 (42.3)	70 (54.7)	127 (43.8)	27.4	0.000
Anxiety	27 (24.5)	16 (30.8)	26 (20.3)	69 (23.8)	9.72	0.137
Peer pressure	26 (23.6)	7 (13.5)	23 (18.0)	56 (19.3)	8.04	0.235
Bullying	16 (14.5)	7 (13.5)	12 (9.4)	35 (12.1)	3.31	0.769
Substance Abuse						
Alcohol	56 (50.9)	30 (57.7)	76 (59.4)	162 (55.9)	2.56	0.634
Illicit drugs	27 (24.5)	15 (28.8)	21 (16.4)	63 (21.7)	9.33	0.053
Marijuana	23 (20.9)	4 (7.7)	40 (31.3)	67 (23.1)	17.3	0.002
Nutritional challenges						
Obesity	25 (22.7)	19 (36.5)	42 (32.8)	86 (29.7)	8.88	0.064
Anorexia	32 (29.1)	16 (30.8)	42 (32.8)	90 (31.0)	5.67	0.226
Mouth ulcers	47 (42.7)	13 (25.0)	46 (35.9)	106 (36.6)	5.12	0.275

*: Only numbers and percentages of participants that ranked each health area as first are displayed.
N, n: number of participants

Depression was ranked the most important mental health issue by 127 (43.8%) participants and bullying (35; 12.1%) was the least important across all the age groups. Alcohol (162; 55.9%) was ranked as the most important substance abused by adolescents. Most of the middle adolescents considered obesity 19 (36.5%) as the most important nutritional challenge experienced by adolescents but most early (47; 42.7%) and late (46; 35.9%) adolescents ranked mouth ulcers as the most important nutritional health problem ($p>0.050$). The details of these sub-analyses are on Table 1b.

The participants ranked their health needs in order of priority, written in bold fonts as indicated in Table II. Most of the adolescents ranked infectious diseases and sexual and reproductive health (SRH) as their first priority with 103 (35.5%) and 87 (30.0%) participants respectively. Mental health (80; 27.6%) was ranked the second most important, and chronic illnesses (75; 25.9%) ranked third. The health needs of least priority were substance abuse (88; 30.3%), nutritional challenges (98; 33.8%) and physical challenges/disability (102; 35.2%), ranked as fifth, sixth and seventh respectively as shown in Table II.

Table II: Ranking of health needs/challenges in order of importance

Order of Priority	HEALTH NEEDS (%)						
	INFD	SRH	MH	CHR	PHC	NUT	SUB
First	103 (35.5)	87 (30.0)	48 (16.6)	30 (10.3)	17 (5.9)	9 (3.1)	7 (2.4)
Second	33 (11.4)	71 (24.5)	80 (27.6)	56 (19.3)	28 (9.7)	19 (6.6)	21 (7.2)
Third	24 (8.3)	44 (15.2)	63 (21.7)	75 (25.9)	18 (6.2)	34 (11.7)	41 (14.1)
Fourth	74 (25.5)	27 (9.3)	37 (12.8)	43 (14.8)	20 (6.9)	33 (11.4)	49 (16.9)
Fifth	33 (11.4)	17 (5.9)	22 (7.6)	32 (11.0)	49 (16.9)	39 (13.4)	88 (30.3)
Sixth	13 (4.5)	17 (5.9)	23 (7.9)	27 (9.3)	56 (19.3)	98 (33.8)	43 (14.8)
Seventh	10 (3.4)	27 (9.3)	17 (5.9)	27 (9.3)	102 (35.2)	58 (20.0)	41 (14.1)

INFD: Infectious Diseases

MH: Mental Health

PHC: Physical Challenges/Disability

SUB: Substance Abuse

SRH: Sexual and Reproductive Health;

CHR: Chronic Illnesses

NUT: Nutritional Challenges

Tables IIIa and IIIb display the sociodemographic characteristics of participants and their first three priority health needs. The management of infectious diseases was the most important to most of the early (47; 42.7%) and middle (25; 48.1%) adolescents ($\chi^2 = 22.2$; $p=0.035$) while the late adolescents (53; 41.4%) viewed sexual and reproductive health (SRH) as the most important ($\chi^2 = 32.5$; $p=0.001$). However, there was no statistically significant difference between the adolescents' sexes and their ranking of the top three health needs ($p>0.050$).

The participants did not differ statistically by socioeconomic status in the ranking of infectious diseases ($p>0.050$), but a significant majority belonging to the low socioeconomic status (43; 44.8%) considered SRH as their most important health need ($\chi^2 = 26.1$; $p=0.011$). Most adolescents who were primary school pupils (5; 62.5%) considered mental health the most important ($\chi^2 = 44.8$; $p=0.006$). Also, most of those in the secondary schools (74; 44.3%) viewed infectious diseases as the first priority ($\chi^2 = 59.4$; $p=0.000$), while most of those either in tertiary institutions or no longer schooling (7; 50.0%) considered SRH as the most important ($\chi^2 = 53.6$; $p=0.000$). See Table IIIb.

Table IIIb: The first three priority health need ranking based on socioeconomic status and level of education

CHARACTERISTICS	HEALTH ASPECT RANKING IN ORDER OF IMPORTANCE*		
	FIRST	SECOND	THIRD
All participants (N=290)	Inf Dis (103; 35.5%)	SRH (87; 30.0%)	Mental (48; 16.6%)
SES			
High (n=128)	Inf Dis (53; 41.4%)	SRH (30; 23.4%)	Mental (22; 17.2%)
Middle (n=66)	Inf Dis (21; 31.8%)	SRH (14; 21.2%)	Chronic (13; 19.7%)
Low (n=96)	SRH (43; 44.8%)	Inf Dis (29; 30.2%)	Mental (15; 15.6%)
Current level of Education			
Primary (n=8)			
Junior Secondary (n=88)	Mental (5; 62.5%)	Inf Dis (3; 37.5%)	-
Senior Secondary (n=79)	Inf Dis (35; 39.8%)	SRH (23; 26.1%)	Chronic (9; 10.2%)
Tertiary (n=101)	Inf Dis (39; 49.4%)	SRH (17; 21.5%)	Mental (13; 16.5%)
Not in school (n=14)	SRH (40; 39.6%)	Inf Dis (24; 23.8%)	Mental (20; 19.8%)
	SRH (7; 50.0%)	Mental (3; 21.4%)	Inf Dis and Nutr (3; 21.4% each)

*: The top three health aspects ranked most important are displayed; N,n: Number of participants; SES: Socioeconomic Status; Inf Dis: Infectious Diseases; SRH: Sexual and Reproductive Health; Mental: Mental Health; Chronic: Chronic Illnesses such as sickle cell anaemia, asthma etc; Nutr: Nutritional Challenges;

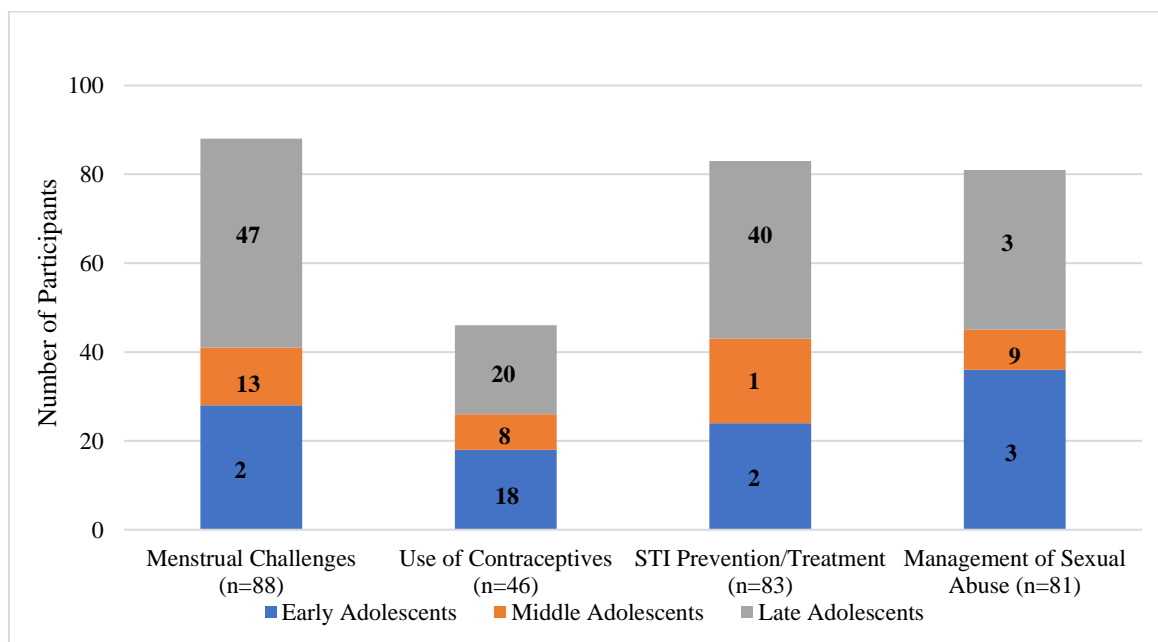


Figure 1: First priority ranking of subareas of SRH by age group

Most of the adolescents (88; 30.3%), especially the late adolescents (47; 36.7%) ranked menstrual challenges as the area of first priority in SRH ($\chi^2 = 19.9$; $p=0.003$) as shown in Figure 1, while most of the early and middle adolescents ranked the management of sexual abuse (36; 32.7%) and prevention/treatment of STIs (19; 36.5%) respectively as first SRH priority ($p<0.050$).

Discussion:

Adolescent period is often fraught with many challenges which include health issues. Designing effective health care service for adolescents requires their involvement. This study set out to explore the perception of health needs among the adolescents attending the OPD of a tertiary hospital in Southwest Nigeria.

The participants perceived the health needs pertaining to infectious diseases, sexual/reproductive health, mental health and chronic illnesses as priority while those relating to substance abuse, nutrition and physical challenges/disability were not regarded as important. Some of these perceived priority health needs differed significantly by age group, socioeconomic status and schooling as predicted by UNICEF² but not by their sex.

Infectious diseases were more important priority among early and middle adolescent group than sexual/reproductive health; this is at variance with the late adolescents whose highest priority was the latter. The choice of infectious diseases as a high priority may be related to the high endemicity of malaria in the study area. The high priority ranking of SRH among the adolescents in this study is similar to previous reports from Nigeria, Nepal and Laos^{3,11,14-16}. An earlier study conducted in Nigeria observed that about 70% of Nigerian adolescents were sexually active by their late adolescence²⁰, besides, late adolescents are relatively free from parental supervision. This probably explains why SRH was ranked the most important among this age group in this study. Meanwhile, adolescents belonging to the low socioeconomic class seldom have access to media information, especially on sex education,²¹ particularly those whose parents have firm control over them. These set are more at risk of sexual abuse²² which often results from curiosity and experimentation. This might be the reason why this group of adolescents prioritized SRH over the other health needs in this study.

In this study, the treatment of STIs and the management of sexual abuse were more important to the participants than access to contraceptives. This may be a subtle cry for help from the participants regarding sexual related violence and/or abuse. Consequently, this observation highlights the need for advocacy to protect vulnerable adolescents from sexual violation as a previous study had established that child sexual abuse is quite prevalent in the study area²³.

Depression was ranked the most important mental health need across all the age groups, a similar finding reported by the WHO⁶. Most of the participants in primary school ranked mental health as the most important. Their choice may be attributed to plausible academic pressures to proceed to the junior secondary level of education; some of them may even have suffered comparison with contemporaries in higher classes. Therefore, it may be necessary to offer mental health services to these group of adolescents to forestall psychological problems. Even though bullying was only as a priority mental health issue among 10% of the participants in this study, it is pertinent for this to be incorporated into adolescent health services offered so that the lingering consequences of bullying can be prevented.

The ranking of alcohol as the most important abused substance in this study is in keeping with a previous study by Ma *et al*²⁴. among adolescents in low-income and middle-income countries. The ubiquity of alcohol, its societal acceptability and easy accessibility might have fuelled the predisposition of adolescents all over the world including those in the current study area to alcohol use and abuse. Alcohol is considered a 'gateway drug' to the use of marijuana and other illicit drugs¹³.

Nutritional challenges were only ranked as the third most important health need among participants that were not currently in school. This group of adolescents that included vocational apprentices, domestic staff and sales clerks among others, who often fed off meagre income, may require guidance on the consumption of food with good quality and quantity to prevent malnutrition, undernutrition and over-nutrition. Meanwhile, participants in the junior secondary school ranked treatment of chronic illnesses as their third health priority. This group of adolescents with chronic illnesses may be in the care of boarding school staff and may experience culture shock coping without their parents. There may be a need to fortify school health services with first aid care and necessary referral for chronic illnesses.

This study highlights the health needs to prioritize and the sociodemographic characteristics to consider when designing culturally acceptable adolescent health programs for the study area. There is a need for multidisciplinary approach including the involvement of the Family Physician, Paediatrician, Gynaecologist, Internist, Psychiatrist/Psychologist, Dietician/Nutritionist among others that will be specially trained for effective adolescent healthcare delivery. In the long run, adolescent health service delivery and uptake in tertiary hospitals in the study locality and other parts of Nigeria may improve if adolescents' prioritized health needs are met.

Conclusion

Most of the participants in this study identified infectious diseases and SRH as their priority health needs, and their perception of adolescent health needs is influenced by

sociodemographic characteristics such as age, level of education and socioeconomic status. These priority needs should be strong considerations in establishing effective adolescent health services in the study area. In addition, we recommend routine appraisal of the health services rendered to adolescents as the population dynamics changes to ensure continuous effective and relevant adolescent healthcare delivery.

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