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**EXPECTATIONS AND EXPERIENCES OF URBAN AND RURAL IN-SCHOOL ADOLESCENTS OF
ADOLESCENT REPRODUCTIVE HEALTH SERVICES IN OYO STATE, NIGERIA**

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ABSTRACT

Introduction: Reproductive health information and services are fundamental to health, well-being and opportunities for women and young people, yet throughout the world, women and youths do not have access to quality reproductive health care thereby exposing them to unplanned pregnancy, teen birth, induced abortion as well as increased exposure to sexually transmitted diseases, HIV inclusive. This study is meant to explore the expectation of adolescents of an adolescent reproductive health services as well as to assess the experiences of those who had visited an ARHS at the centers.

Methodology: It was a descriptive cross-sectional prospective study, analytic in design using a multistage sampling technique where 452 secondary school pupils in both rural and urban communities were interviewed using a pretested validated questionnaire. Data was analyzed using SPSS version 21. Chi square was used to test for association between both rural and urban adolescents in issues relating to their expectation and experiences, with p value of <0.05.

Results: More of the respondents in the urban communities (73,32.4%) have the expectation that Adolescent Reproductive Health Services (ARHS) should be provided in an existing health service with special attention to adolescents while a larger percentage of those who preferred a special adolescent health institution were from the rural communities (122, 54.2%) which was statistically significant with a p value of 0.001. More of respondents from the rural communities also expect that contraception services should be provided in an ARHS center while life skill services are expected by more of the respondents from the urban communities (122, 55.6%). More of the rural community respondents (57,25.3%) expect that fee at the ARHS centers should be provided at a subsidized rate while more of the urban dwellers have the expectation that services provided should be free of charge. For respondents who had been to an ARHS center, more of the urban respondents were attended to by a Medical doctor and a large percentage (34, 94.4%) of those who had visited ARHS center before professed to be satisfied with the services rendered there.

Conclusion: Expectations from adolescents from ARHS are very high. However, most of them prefer a free of charge service as well as a service area nearer to residential area. Confidentiality and having a young health professional at the service centers cannot be overemphasized in the provision of quality ARHS.

Keywords: expectation, experiences, rural, urban, adolescents, reproductive health

BACKGROUND INFORMATION

Many adolescents, especially in developing countries like Nigeria, have little information, experience and are less comfortable visiting health services for Reproductive Health (RH) than adults^{1,2} They are without the basic information and they do not have access to affordable and confidential Reproductive health services. Many adolescents do not have the boldness to discuss issues about Reproductive Health with their parents.³ Likewise, parents, health care workers and educators are more often unwilling to give complete and appropriate RH information to adolescents because of their personal discomfort about the subject or the false belief that giving such information to young people may encourage early sexual activity.⁴ The basic needs of adolescent are the provision of affordable, friendly and confidential reproductive health

information and services for effective transition to adulthood.⁵ Adolescents are able to protect themselves against sexually transmitted diseases (STDs) and unwanted pregnancy when they have access to private and confidential services; they care for their reproductive health and take advantage of other opportunities that will contribute to their lifelong well-being.⁶

Adolescents often face steep, social, logistic, economic and legal barriers to exercising their sexual and reproductive rights and accessing the health care they need. Social and cultural norms around adolescent sexuality may discourage young people from seeking services, particularly if they are concerned that their confidentiality and privacy won't be maintained at health facilities. Young people sometimes face provider bias, making it difficult to receive the comprehensive care they need. In addition, the location and hours of operation of facilities and the cost of services may further hamper young people's ability to access needed services.⁷ As a result of the stigma attached to adolescent sexuality, there have been pockets of opposition to youth access to Sexual Reproductive Health information and services for fear of promoting promiscuity among the age group. When adolescents lack the right information about their reproductive health, they often are at risk of sexually transmitted infections, HIV inclusive. Globally, young women aged 15-24, have HIV infection rates twice as high as in young men, and account for 22% of all new HIV infections and 31% of new infections in Sub-Saharan Africa.⁸ About 9.5 million adolescents and young adults (ages 15–24) are diagnosed with sexually transmitted diseases (STDs) each year.⁹ Also, the HIV/Syphilis Sentinel Survey in Nigeria revealed that 3.3% of young people aged 15-19 are infected with the HIV virus.¹⁰ According to UNAIDS, 2008, Nigeria has an estimated 280,000 adolescents living with HIV/AIDS, consisting of 180,000 females and 100,000 males.

Many studies have been done on adolescents sexual behavior and knowledge on reproductive health,^{11,12,13} but very few have moved forward to determine what these adolescents expect when accessing care as well as what their experiences are when they go out of their way to seek reproductive health care. In order to develop comprehensive reproductive health program for adolescents in Nigeria, there is need for researches into the expectations and experiences of these vulnerable. This study is therefore aimed at determining expectations and experiences of in-

school adolescents about reproductive health services in urban and rural areas of Oyo State, Nigeria.

METHODS

Study area/ design

A descriptive cross-sectional prospective study carried out in selected rural and urban secondary schools in Oyo state using a multistage sampling technique.

Study Population

The study population included adolescents aged 10-19 years attending public and private day secondary schools in Oyo State. However, married in- school adolescents were exempted from this study.

Sample Size Calculation

Using the formula for comparing two groups,¹⁴ a sample size of 205 respondents was gotten. A 10% non-response rate was anticipated; therefore the adjusted sample size was 226. Two hundred and twenty six questionnaires were administered to each group (rural and urban) giving a total of 452.

Sampling Technique

Multistage sampling technique was used. Two rural and two urban Local Governments were chosen using simple random sampling (balloting method) making four LGAs. One private and one public Secondary schools each were chosen from the four LGAs making a total of eight schools using simple random sampling. Proportional allocation was used to determine the number of respondents to be chosen in each school based on the number of pupils in the schools. Systematic sampling was used to choose respondents from each of the schools.

Instruments of the study

A pre-tested semi-structured questionnaire, self-administered questionnaire was used as the survey instrument.

Data Collection

The questionnaires were self-administered by the student under the supervision of four trained research assistants. There were orientation and training of the research assistance on how to fill the questionnaires which spread across a period of 3 weeks, at two sections per week, to ensure uniformity.

Statistical Analysis

The questionnaires were sorted out in a manual fashion, entered into a computer and the processing of the resulting data was done using Statistical Package for Social Sciences version 22. Chi square was used to determine association between the rural and urban respondents in respect to their expectation and experiences at ARHS center.

Ethical Considerations: The assents of the adolescents were obtained and a written informed consent was taken from their guardians. Ethical clearance certificate was received from the ethical review committee of Ladoke Akintola University of Technology Teaching Hospital, Ogbomoso.

Limitation of the study: Issues pertaining to reproductive health are quite sensitive and personal, making some of the respondents a little bit reluctant to respond to some of the questions. However, confidentiality was well assured which eventually made them give reliable answers.

RESULTS

A total of 452 questionnaires were administered but 450 questionnaires were completely filled and returned giving a response rate of 99.6%.

Socio demographic characteristics of respondents.

Table 1 shows the socio demographic characteristics of respondents. There were slightly more males (246, 54.7%) than females (204, 45.3%). Most of the respondents were from the Yoruba ethnic group (413, 91.8%), and were Christians (330, 73.3%). The mean age of the urban respondents was 13.9+2.03 years and that of the rural respondents was 14.3+1.93 years. There

were more of the middle age adolescents in rural areas and more of the early and middle adolescents in urban areas.

Table 2 depicts respondents' expected setting of an adolescent reproductive health service center. One hundred and twenty two (54.2%) and 96 (42.7 %) of rural and urban respondents respectively expected that adolescent reproductive health services be rendered in a special adolescent health institution while 45 (20.0%) and 73 (32.4%) of rural and urban respondents preferred an existing health service with special approach to adolescents. The difference in their view about the expected setting of an ARHS centre was statistically significant ($p < 0.001$)

Table 3 shows the components of services expected to be rendered in an adolescent reproductive health service center. Two hundred and twenty two (49.3%) of respondents expected that life skill be made available at the center, a greater proportion 122 (54.0%) was from the urban area, the difference of which was statistically significant ($p = 0.018$). Also, 25 (71.4%) and 10 (28.6%) of the rural and urban respondents respectively expect that HIV testing should be part of the services offered in a facility that renders ARHS.

Figure 1 shows the fee expected at an ARHS centre by respondents. Two hundred and fifty four (56.4%) desired that ARH should be free of charge to adolescents, a greater proportion were from the urban area (60.0%). However, 57 (25.3%) and 43 (19.1%) of rural and urban respondents respectively felt the service should be provided at a subsidized rate. However, the difference between the expected fee charges at ARHS centres between the groups was not significant ($p = 0.220$)

In table 4, one hundred and forty (31.1%) respondents expected ARHS to be available every day of the week with a higher proportion from the urban communities (80,35.6%). More than half (258, 57.3%) of respondents preferred the service facility to be opened between 4pm and 8pm, the difference of which was statistically significant ($p = 0.002$). Two hundred and forty one (53.6%) expected service to be provided all day with a higher proportion from the rural communities (122, 54.2%). Higher proportion in the rural community preferred to be attended to at the ARHS facility by a young, of the same sex or any sex while higher proportion in urban preferred a matured, of the same sex or any sex health worker, the difference of which was statistically significant ($p = 0.004$).

Figure 2 shows that one hundred and nineteen (52.9%) and 125 (55.6%) of rural and urban respondents respectively desired that ARHS facility will be near their homes, 70 (31.1%) and 66 (29.3%) of rural and urban respondents respectively wished it to be far from their homes while 34 (15.1%) and 33 (14.7%) of the rural and urban respondents respectively were not sure about the nearness of ARHS facility to their homes

Table 5 showed that thirteen (5.8%) and 22 (9.8%) of rural and urban respondents had ever utilized ARHS while 212 (94.6%) and 203 (90.2%) of rural and urban respectively had never been to ARHS. The difference between the utilization of ARHS of both groups was not statistically significant. ($p=0.113$).

Table 6 shows that majority of the respondents felt provision of confidential service in an ARHS facility is very important with 166 (73.8%) and 145 (64.4%) from the rural and urban communities. There were statistically significant difference on the importance of short waiting time ($p<0.0001$), cost or free service ($p=0.002$), friendly staff ($p=0.001$), same sex professional ($p<0.0001$), young health professional ($p<0.0001$), youth only facility ($p=0.000$) and closeness to home or school ($p=0.014$)

In Table 7, ten (66.7%) and 13 (61.9%) of rural and urban respondents met with a doctor at the facility while 8 (22.2%) were attended to by a nurse. All the rural respondents (100.0%) considered the service at the facility satisfactory while 90.9% of the urban respondents were satisfied. Eight (71.4%) and 15 (68.2%) of the rural and urban respondents agreed that they were treated with understanding at the facility. There was however no statistical difference in the experiences of respondents between the two groups when they assessed reproductive health services.

DISCUSSIONS

In this study, significantly more than half of the rural respondents wanted ARHS to be provided in a special adolescent institution while one third of urban respondents wanted ARHS to be integrated into existing health service with a special approach to adolescents. This difference could be due to the fact that the existing facilities are not yet youth friendly in structure and

adolescent desire to have a place that is separate from where the other adults visit. This could actually afford them the privacy they craved for. However, in the actual sense, integrating ARHS into existing facilities is the mainstay of reaching these vulnerable groups in a huge number.¹⁵ This would afford them the opportunity to access reproductive health service even when they come visiting for other medical problems. This also will help eliminate the supposed “shame” that may be associated with young people accessing reproductive health service as no one would know what such adolescent has come in for.

Although there was no difference in the expected fee charge of an ARHS, more of the rural respondents expected that the services should be provided at a subsidized rate while two third of the urban respondents wanted a free of charge service. The result of the rural communities was in contrast to another study where the majority of the adolescents wanted ARHS be given free of charge.¹⁶ This could actually reveal how much the rural respondents wanted such services to be available at their doorstep, even if it meant that they pay a token.

Concerning the days of the week expected for ARHS to be made available, more of the rural adolescents wanted ARHS to be provided during school hours. This is similar to another study carried out in Ethiopia, where the majority of the adolescents wished to be able to access ARHS especially during school hours.¹⁷ This could be to afford them the opportunity to visit such centers while at school so that they wouldn't need any special excuse from their parents. This is still to buttress the point that they may be afraid of what their parents or other adults may think when they see them accessing such services. Three in ten of the adolescents expected that the health professional they would like to meet at the facility is matured and may be either of the same sex or different sex with them, a higher proportion were from the urban communities.

Proximity of ARHS facility has been known to be paramount to the utilization of such services.¹⁷ In this study, about two-third of adolescents expected that ARHS centres should be as close as possible to their place of residence. This is similar to another study in Ghana, where proximity to residence was a determinant factor of optimal utilization of ARHS.¹⁸ This could be in a bid to allow them access such service any time they feel like without any economic barrier e.g., transport fare that may likely hinder them.

Confidential services are highly imperative and cannot be over-emphasized if adolescents would access facilities rendering reproductive health services. Almost nine out of ten respondents stated the importance of confidentiality and more than eight out of ten felt a low cost service or free services and presence of friendly staff are important for an adolescent friendly center. This was similarly found in a study done in Nepal, where the young people fear sexual health service providers to be judgmental and lack confidentiality.¹⁹ This may be because of the secrecy and privacy known with reproductive health issues and confidentiality becomes more imperative among adolescents as they wouldn't want another person to know why they are accessing the care. This was made more graphic in this study where the reason given by respondents on why they wouldn't access reproductive health care meant for adolescents was because they felt the service will not be confidential. This is in line with another study done in Canada on adolescent confidentiality.²⁰ Adolescents' worry about maintaining their privacy can hinder them from seeking health care, especially for specific sensitive health services.

Significantly, the expectations of adolescents about the reproductive health centre set up differ between the two groups. More than two third of respondents wanted youth only facility, young health professional, and about half wanted single sex facility and closeness of facility to home or school. More than half of rural respondents also see short waiting time, low-cost services and friendly staff as very important. This signifies that the rural respondents' expectation of an adolescent reproductive health facility is very high, thus a more frantic effort should be made to establish adolescent friendly facilities in the study area especially the rural setting and across the country at large. Adolescents' concerns about privacy can prevent them from seeking healthcare, especially for specific sensitive health services.²¹ A qualitative study in Zimbabwe found that youth preferred youth-alone youth facilities while in another study in Uganda adolescents preferred upgrading of existing services and facilities and retraining of personnel.²² However, in this study, the provision of confidential services, short waiting time, low cost service and friendly staff are the topmost important attributes respondents expected from an adolescent reproductive health service.

This study revealed that there was no rural-urban statistical difference in terms of unpleasant experiences for the very few respondents who had accessed Adolescent Reproductive Health service before. This could mean that adolescent health is being practiced in few health facilities, howbeit they are adolescent conscious. The services rendered could however be improved on,

both in the rural and urban communities. More than two-third of those who had visited an adolescent reproductive health service before were attended to by a doctor, with a higher proportion from the urban communities. This was consistent with similar studies done among adolescents in Ethiopia.²³ Almost all of them found the services rendered satisfactory and more than half of the respondents who have been to a reproductive health facility attested that the health care providers they met at the facilities were knowledgeable and well qualified with a significant difference associated with the place of residence.

In this study, we examined the expectation and experiences of adolescents on the adolescent reproductive health service. From the study it is revealed that the respondents expect the ARHS centres to be close to their homes. Youths considered youth-only services, youth involvement in services and young staff as the least important characteristics generally applicable to the existing health-care system were rated as the most important. The study also clearly shows that the in-school adolescents in Oyo state have a dire need of access to confidential and friendly reproductive health services. It is highly recommended that free and discounted sexual health services from the governmental, non-governmental and community based organizations in order to motivate adolescents to make use of the centres. Also, setting up of adolescent friendly health service in schools or college premises is very important. This should be a policy that the government and non-governmental organizations will employ to allow openness from the adolescents. Furthermore, future researches should include community based studies to fully explore the expectations of young adults from ARHS.

CONCLUSION: Availability of ARHS around where adolescents live cannot be over-emphasized. This will go a long way in increasing their access to such service. Service charge at this facility should be subsidized as much as possible as evidenced by the expectation of rural respondent and where applicable, free of charge, as expected by respondents from the urban areas. Confidentiality at such service should be a rule of thumb.

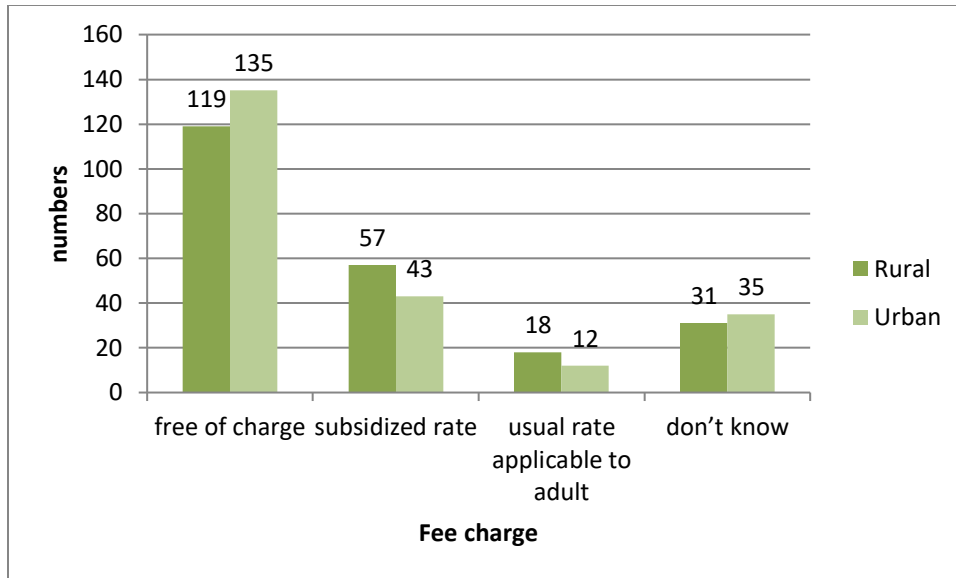


Figure 1: Expected fee charge by respondents at the ARHS facility

Frequencies

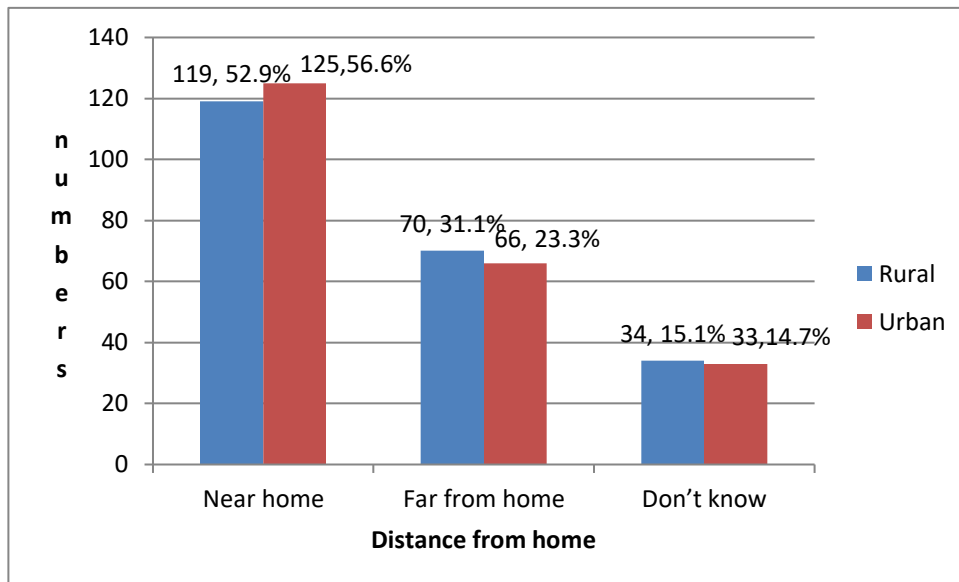


Figure2: Expected Distance of Adolescent Reproductive Health Services from Respondents' Home.

REFERENCES

1. Doherty J. Involving the private sector in sexual and reproductive health services: the need for caution. 2005; Available from: Accessed on 20/06/2017 at www.wits.ac.za/whp/rightsandreforms/docs/RRpolicyPublic.pdf
2. Ilori OR, Awodutire PO, Ilori OS Awareness and Utilization Of Adolescent Reproductive Health Services Among In-School Adolescents In Urban And Rural Communities In Oyo State. Nigerian Medical Journal 2020; 61:67-72
3. Ajakaiye O and Mwabu G. The demand for reproductive health services: an application of control function approach. In: Conference paper at African Econometrics Society [Internet]. 2007. Available from: Accessed on 10/07/2017 at www.africametrics.org
4. Ditole K, St Lawrence Selollwe, Magowe MM. Parent and Youth communication Pattern on HIV and AIDS,STIs and Sexual Matters: Opportunities and Challenges. J Child Adolesc Behav. 2015;3(3):203.
5. Erulkar, AS, Onoka, CJ & Phiri A. What is Youth- Friendly? Adolescents' Preferences for Reproductive Health Services in Kenya and Zimbabwe. Afr J Reprod Health. 2005;9(3):51–8.
6. Jenifa H, Elissa C, Kennedy S. “Be kind to young people so they feel at home”: a qualitative study of adolescents' and service providers' perceptions of youth-friendly sexual and reproductive health services in Vanuatu. BMC Health Serv Res. 2013;13:15–7
7. Iniabasi NI, Anthonia A. Adolescents an Utilization of Family Planning Services in Rural Community of Nigeria. Humanit Soc Sci. 2013;3(1):1–10.
8. UNAIDS. Joint United Nations Programme on HIV/AIDS. UNAIDS World AIDS Day report. 2011.
9. Forhan, S. E., Gottlieb, S. L., Sternberg, M. R., Xu, F., Datta, S. D., McQuillan, G. M. et al. Prevalence of sexually transmitted infections among female adolescents aged 14 to 19 in the United States. Pediatrics. 2009;124(6):1505–12.
10. Federal Ministry of Health (FMoH) [Nigeria]. National HIV/Syphilis Seroprevalence Sentinel Survey, Process and Findings National AIDS/STDs Control Programme (NASCP). 2008.
11. Iyaniwura CA, Daniel OJ, Adelowo OO. Attitude of Youths to Sexual Abstinence as a strategy for HIV prevention. Niger Med Pract. 2007;52(2):33–37.
12. Jewkes R, Wood K. Blood blockages and scolding nurses: barriers to adolescent contraceptive use in South Africa. Reprod Health Matters. 2006;14(27):109–18.

13. Magnani RJ, Mmari KN. Does making clinic-based reproductive health services more youth-friendly increase service use by adolescents? Evidence from Lusaka, Zambia. *J Adolesc Health*. 2006;33(4):259–70.
14. Kelsey J, Whitte A, Evans A, Thompson WD. *Methods in observational epidemiology*. 2nd ed. Oxford University Press; 1996. pp332.
15. World Health Organization. Making health services adolescent friendly: developing national quality standards for adolescent friendly health services. Department of Maternal, Newborn, Child and Adolescent Health. World Health Organisation,. 2012;
16. Ann B, Alister M, Susheela S. Adolescents' views of and preferences for sexual and reproductive health services in Burkina Faso, Ghana, Malawi and Uganda. *Afr J Reprod Health*. 2007;11(3):99–100
17. Blanck AK, Mensch BS, Grant MJ. The changing context of sexual initiation in sub-Saharan Africa. *Popul Dev Rev*. 2006;32:699–727.
18. Worku A, Abebe M. Utilization of Youth Reproductive Health Services and Associated Factors among High School Students in Bahir Dar, Amhara Regional State, Ethiopia. 2014;4(2):69–75.
19. Dev Raj AP, Pramod RR, Edwin van T, Padam S. Barriers to Sexual Health Services for Young People in Nepal. *J Health Popul Nutr*. 2010;28(6):619–27.
20. Ruth W, Deborah T, April SC, Andrea PK, Ian M, and Jorge LP. Adolescent confidentiality: Understanding and practices of health care providers. *Paediatr Child Health*. 2014;19(2):11–4.
21. Diane MS, Susan ER, Giselle C and Lucia F, O'Sullivan P. Challenges of Providing Confidential Care to Adolescents in Urban Primary Care: Clinician Perspectives. *Ann Fam Med*. 2011;9(1):37–43.
22. Element K.G, Robert KM. Health risk behaviour of rural secondary school student in Zimbabwe. *Health Educ Behav*. 2005;28(5):608–23.
23. Agampodi SB, Agampodi TC, Piyaseeli UK. Adolescents perception of reproductive health care services in Sri Lanka. *BMC Heal Serv Res*. 2008;8:98.

List of Tables

Table 1: Socio-Demographic Profile of the Respondents

Socio-demographic characteristics	Frequency(percentage)			Statistics
	Rural(n=225)	Urban(n=225)	Total(n=450)	
Age in Groups (in years)				
10-13	76 (33.8)	88 (39.1)	164 (36.4)	$\chi^2= 2.395$
14-17	144 (64.0)	129 (57.3)	273 (60.7)	df = 2
18-19	5 (2.2)	8 (3.6)	13 (2.9)	p = 0.302
Mean Age	14.3 \pm 1.93	13.9 \pm 2.03	14.06 \pm 2.02	t=2.44; p=0.93
Class				
JSS 1-3	112 (49.8)	113 (50.2)	225 (50.0)	$\chi^2= 0.009$
SSS 1-3	113 (50.2)	112 (49.8)	225 (50.0)	df = 1
				p = 0.925
Gender				
Male	131 (58.2)	115 (51.1)	246 (54.7)	$\chi^2= 2.296$
Female	94 (41.8)	110 (48.9)	204 (45.3)	df = 1
				p = 0.130
Religion				
Christianity	166 (73.8)	164 (72.9)	330 (73.3)	$\chi^2= 2.012$
Islam	59 (26.2)	59 (26.1)	118 (26.2)	df = 2
Traditional	0 (0.0)	2 (100.0)	2 (0.5)	p = 0.366
Ethnicity				
Yoruba	204 (90.7)	209 (92.9)	413 (91.8)	
Hausa/Fulani	10 (4.4)	3 (1.3)	13 (1.3)	$\chi^2= 4.541$

Igbo	6 (2.7)	9 (4.0)	9 (4.0)	df = 3
Others	5 (2.2)	4 (1.8)	4 (1.8)	p = 0.209

Custodian

Both parents	173 (76.9)	183 (81.3)	356 (79.1)	$\chi^2 = 1.349$
Single parent	35 (15.6)	28 (12.4)	63 (14.0)	df = 2
Others	17 (7.5)	14 (6.3)	31 (6.9)	p = 1.349

***Statistically Significant**

***JSS-Junior Secondary School**

SSS-Senior Secondary School

Table 2: Expected Setting of an Adolescent Reproductive Health Service Centre

Setting of an ARHS	Frequency (percentage)			Statistics
	Rural N=225	Urban N=225	Total N=450	
Special adolescents health institution	122 (54.2)	96(42.7)	218 (48.4)	
Existing health service with special approach to adolescents	45 (20.0)	73 (32.4)	118 (26.2)	$\chi^2= 26.054$ df= 4
Special rooms within an existing facility	54 (24.0)	37 (16.4)	91 (20.2)	*p<0.001
Pharmacies	2 (0.9)	18(8.0)	20 (4.4)	
Others	2 (0.9)	1 (0.4)	3 (0.7)	

Table 3: Components of services expected to be rendered in an Adolescent Reproductive Health Service centre

Services	Frequency (Percentage)			χ^2	df	P value
	Rural N=225	Urban N=225	Total N=450			
Life skill	100 (44.4)	122 (55.6)	222 (49.3)	5.571	1	*0.018
Counseling	44 (44.9)	54 (55.1)	98 (12.8)	1.304	1	0.253
HIV Testing	25 (71.4)	10 (28.6)	59 (10.1)	6.971	1	*0.008
Abortion services	20 (41.7)	28 (58.3)	48(16.5)	1.493	1	0.222
Contraceptives	101 (53.2)	89 (46.8)	190(30.2)	1.312	1	0.252
All of these services	24 (42.9)	32 (57.1)	56 (12.2)	1.305	1	0.253

***Statistically significant **Multiple response allowed**

Table 4: Respondents' preferred day, time, age of health professional expected for an adolescent reproductive health clinic

Variables	Frequency (Percentage)			Statistics
	Rural n=225	Urban n=225	Total N=450	
Preferable day of week				
Mon-Friday	52 (23.1)	36 (16.0)	88 (19.6)	$\chi^2=6.920$
Monday- Saturday	76 (33.8)	66 (29.3)	142 (31.6)	df=3
Saturday-Sunday	37 (16.4)	43 (19.1)	80 (17.8)	p=0.074
Everyday	60 (26.7)	80(35.6)	140 (31.1)	
Preferred time				
				$\chi^2=9.302$
8am-4pm	112 (49.8)	80 (35.6)	192 (42.7)	df=1
4pm-8pm	113 (50.2)	145 (64.)	258 (57.3)	*p=0.002
Preferred opening time				
All day	122 (54.2)	119 (52.9)	241 (53.6)	$\chi^2=0.087$
After school time	90 (40.0)	93 (41.3)	183 (40.7)	df=2
During School time	13 (5.8)	13 (5.8)	26 (5.8)	p=0.958
Expected age bracket and sex of health professional				
Young and of the same sex	71 (31.6)	54 (24.0)	125 (27.8)	$\chi^2=13.560$
Young and any sex	44 (19.6)	26 (11.6)	70 (15.6)	df=3

Matured and same sex	70 (31.1)	80 (35.6)	150 (33.3)	*p=0.004
Matured and any sex	40 (17.7)	65 (28.8)	105 (23.3)	

***Statistically significant**

Table 5: Utilization of Adolescent Reproductive Health Service Center

Variables	Frequency (percentage)			Statistics
	Rural n=225	Urban n=225	Total N=450	
Ever visited adolescent reproductive service centre				$\chi^2= 2.509$
Yes	14 (5.8)	22 (9.8)	36 (7.8)	df=1
No	211 (94.6)	203 (90.2)	414(92.2)	p=0.113

Table 6: Respondents' rating of importance of an ideal adolescent reproductive health service center

Variables	Frequency (Percentage)			Statistics
	Rural (n=225)	Urban (n=225)	Total (N=450)	
Confidential service				
Very Important	166 (73.8)	145 (64.4)	311 (69.1)	$\chi^2= 4.707$
Important	40 (17.8)	52 (23.1)	92 (20.4)	df= 2
Not important	19 (8.4)	28 (12.4)	47 (10.4)	p= 0.095
Short waiting time				
Very Important	135 (60.0)	98 (43.6)	233 (51.8)	$\chi^2= 25.282$
Important	61 (27.1)	54 (24.0)	115 (25.6)	df=2
Not important	29 (12.9)	73 (32.4)	102 (22.6)	*p=0.000
Low cost or free service				
Very Important	139 (61.8)	106 (47.1)	245 (54.4)	$\chi^2= 12.331$
Important	56 (24.9)	64 (28.4)	120 (26.7)	df=2
Not important	30 (13.3)	55 (24.4)	85 (18.9)	*p=0.002
Friendly staff				
Very Important	153 (68.0)	122 (54.2)	275 (61.1)	$\chi^2= 13.669$
Important	51 (22.7)	56 (24.9)	107 (23.8)	df= 2
Not important	21 (9.3)	47 (20.9)	68 (15.1)	*p=0.001

Same sex professional				
Very Important	119 (52.9)	72 (32.0)	191 (42.2)	$\chi^2= 21.578$
Important	54 (24.0)	66 (29.3)	120 (26.7)	df=2
Not important	52 (23.1)	87 (38.7)	139 (30.9)	*p=0.000
Young health professional				
Very Important	130 (57.8)	69 (30.7)	199 (44.2)	$\chi^2= 43.019$
Important	49 (21.8)	49 (21.8)	98 (21.8)	df= 2
Not important	46 (20.4)	107 (47.6)	153 (34.0)	*p=0.000
Youth only facility				
Very Important	127 (56.4)	83 (36.9)	210 (46.7)	$\chi^2= 21.862$
Important	54 (24.0)	58 (25.8)	112 (24.9)	df=2
Not important	44 (19.6)	84 (37.3)	128 (28.4)	*p=0.000
Clinic close to home or school				
Very Important	129 (57.3)	100 (44.4)	229 (50.9)	$\chi^2= 8.496$
Important	55 (24.4)	63 (28.0)	18 (26.2)	df=2
Not important	41 (18.2)	62 (27.6)	103 (22.9)	*p=0.014
*Statistically significant				

Table 7: Respondents' Experiences at the Adolescent Reproductive Health Service

Variables	Frequency (Percentage)			Statistics
	Rural(n=14)	Urban(n=22)	Total n=36	
Who did u talked to at the centre				
Doctor	10 (66.7)	13 (61.9)	23 (63.9)	
Nurse	2 (13.3)	6 (28.6)	8 (22.2)	$\chi^2=0.322$
Health aid	0 (0.0)	1 (2.8)	1 (2.8)	df=3
Counselor/Peer educator	2 (20.0)	2 (6.9)	4 (11.1)	p=3.488
Do you consider the service satisfactory				
Yes	14 (100.0)	20 (90.9)	34 (94.4)	$\chi^2=1.348$
No	0 (0.0)	1 (4.6)	1 (2.8)	df=2
Don't know	0 (0.0)	1 (4.5)	1 (2.8)	p=0.510
Felt someone was listening to conversation				
Yes	3 (21.4)	9 (40.9)	12 (33.3)	$\chi^2= 0.473$
No	9 (64.3)	11 (50.0)	20(55.5)	df=2
Don't know	2 (14.3)	2 (9.1)	4 (11.2)	p=1.496

Don't know				
Interrupted when being attended to				
Yes	3 (21.4)	7 (31.8)	10 (27.8)	$\chi^2= 1.917$
No	11 (78.6)	15 (68.2)	25 (72.2)	df=2
				p=0.383
How were you treated				
With warmth and empathy	2 (28.6)	6 (27.3)	8 (27.8)	$X^2=0.174$
With understanding	8(71.4)	15 (68.2)	23 (69.4)	df=1
With indifference	2 (14.3)	1 (4.5)	3 (8.3)	p= 0.677
With reservation/coldness	2 (14.3)	0 (0.0)	2 (5.6)	
How satisfactory were their services				
Information service				
	12 (85.7)	20 (90.9)	32 (88.9)	$\chi^2= 1.636$
Satisfactory	2 (14.3)	1 (4.6)	3 (8.3)	df=2
Not satisfactory	0 (0.0)	1 (4.5)	1 (2.8)	p=0.441
Not available				
Counseling Services				
Satisfactory	11 (78.6)	20 (90.9)	31 (86.1)	$\chi^2= 2.982$
Not satisfactory	3 (21.4)	1 (4.6)	4 (11.1)	df=2
Not available	0 (0.0)	1 (4.5)	1(2.8)	p=0.225
Treatment service				

Satisfactory	12 (85.7)	20 (90.9)	32 (88.9)	$\chi^2= 1.636$
Not satisfactory	2 (14.3)	1 (4.6)	3 (8.3)	df=2
Not available	0 (0.0)	1 (4.5)	1 (2.8)	p=0.441
