AL-HIKMAH JOURNAL OF EDUCATION, VOL. 8, NO. 2, DECEMBER, 2021 ISSN 2384-7662
E-ISSN 2705-2508

EXPERIENCE OF SECONDARY SCHOOL ADOLESCENTS TOWARDS SEXUALITY AND REPRODUCTIVE HEALTH NEEDS BARRIERS IN SABON GARI LOCAL GOVERNMENT AREA OF KADUNA STATE, NIGERIA

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Abstract

The fundamental lack of sexuality and reproductive health education amongadolescents in most African countries makes them display sexual behaviours and developmental characteristics that make them vulnerable to reproductive health challenges.This study describesthe experience of secondary school adolescents towards sexuality and reproductive health needs barriers in Sabon Gari Local Government Area of Kaduna State, Nigeria. Descriptive cross-sectional design was adopted and the setting of the study was three selected secondary schools. The multistage sampling technique was used to select 422 respondents from the three schools. Fisher's formula was used to determine the sample size. Descriptive and inferential statistics were used to analyze the data using SPSS version 20. The results showed a remarkable poor awareness level among respondents about sexual and reproductive health information. A little above a third of the respondents have had sexual experience at the age of 17 years.Few of them had experienced an unintended pregnancy, gender-based violence, and sexually transmitted infection in the past. The majority of the respondents reported that their sexual and reproductive health information needs were not met. Findings also showed that religious belief, cultural acceptance, and stigma and discrimination were the major impediments reported in accessing sexual and reproductive health information.There was a significant gap in adolescents' sexuality and reproductive health needs awareness and religious belief, cultural acceptance and stigma and discrimination were the major impediments in accessing sexual and reproductive health information. Consideration and support should be employed on schooling adolescents in other to increase SRH Awareness.

Keywords: Adolescence, Adolescents, Sexuality, Reproductive health, Secondary schools and Nigeria

Introduction

Adolescence is mostly defined as a transitional period between puberty and attaining adulthood (Curtis, 2015) between the ages ranges of 10 to 19 years (WHO, 2016). Adolescence is characterized by rapid growth alongside physical and emotional changes and increased risk-taking behaviour that exposes them to many health risks (Deepanjali & Sukhjeet, 2020; Hale & Viner, 2016; WHO, 2018). World Health Organization [WHO] (1998), reported that adolescents consist of 20% of the total population of the world, about 85% of whom live in developing countries. Understanding and managing the adolescent transitional period requires critical attention (Mehta and Seeley, 2020). Over the past two decades, there have been calls for countries to address the sexual and reproductive health (SRH) needs of adolescents (Chandra-Mouli, Ferguson, Plesons, Paul, Chalasani & Amin, 2019; Liang, Simelane, Fillo, Chalasani, Weny & Canelos, 2019).

Adolescent sexual and reproductive health is a global public health concern due to increased adolescent sexual activities (Morris and Rushwan, 2015), lack of adolescents access to SRH services, comprehensive sexuality education, contraception counseling and provision, violence against girls prevention, support, and care and harmful traditional practices prevention (Chandra-Mouli, Svanemyr, Amin, Fogstad, Say & Girard, 2015; WHO, 2003; Deepanjali, Deshmukh & Chaniana, 2020).It is estimated that at least one-third of the 357 million curable sexually transmitted infections (STIs) occur globally among adolescent girls and young women yearly (Population Reference Bureau, 2012; Newman, Rowley, Vander, Wijesooriya, Unemo & Low, 2015; Blum and Nelson-Mmari, 2004). Studies have demonstrated that they are often unprepared for this challenge. Significant numbers of adolescent girls in many countries have knowledge gaps and misconceptions about menstruation and where to obtain it and how to use a range of modern contraceptive methods (Chandra-Mouli et al., 2015). Discussions are still going on in some countries about who should and to what extent to educate adolescents on SRH matters (Deepanjali, Deshmukh & Chaniana, 2020). Adolescents are a heterogeneous group with different and evolving needs, depending on their personal development stages and life circumstances. The disproportionate burden of SRH issues that young people

suffer is often aggravated by the lack of SRH knowledge and low availability and/or accessibility of SRH services (Chandra-Mouli et al., 2015).

Several factors have further exposed adolescents to sexual and reproductive health problems such as taboos surrounding sex education, early marriage, norms and traditions, and lack of promotion of comprehensive knowledge of sexual and reproductive health by public campaigns/entities/government (Sychareun, Vongxay, Houaboun, Thammavongsa, Phummavongsa & Chaleunvong, 2018; Mchome, Richards, Nnko, Dusabe, Mapella & Obasi, 2015). The accessibility of SRH services is influenced by a complex set of factors related to adolescent SRH knowledge and awareness of services, socio-cultural norms regarding sexual activity, availability of services, and costs of using the services and the quality of the services they provide (Tylee, Haller, Graham, Churchill & Sanci, 2007). Sexual and reproductive health services were conceptualized to provide health information, education, and counseling, offer a wide scale of safe and affordable contraceptive methods, quality obstetric and antenatal care for all pregnant girls, testing (pregnancy and HIV), prevention and management of STIs, conduct promotional activities, and encourage active participation of adolescents (United Nations Population Fund [UNFPA], 2017). Adolescent-friendly reproductive health services have been largely lacking in most countries especially in rural areas (WHO, 2011). Most African countries do not have sufficient trained staff to provide and cater to the SRH needs of adolescents (Agampodi & Agampodi, 2008).

In Nigeria, sexual and reproductive health services for adolescents were reported to be of low quality, citing inconvenient hours of operation, long waiting time, and cost of services for adolescents and were provided through maternal and child health programs (Barker and Das, 2004; Odo, Samuel, Nwagu, Nnamani & Atama, 2018). The SRH is usually not specifically targeted to the needs of adolescents and health workers providing the services are not adequately skilled mostly in rural areas (Federal Ministry of Health, 2017). Studies in Nigeria revealed that adolescents SRH coverage rates were low, new HIV infection rates are high, contraception usage is low and pregnancy rates are high (Animasahun, Sholeye & Oduwole, 2016; UNFPA, 2013). This study aimed to assess the experience of secondary school adolescents towards sexuality and reproductive health needs barriers in Sabon Gari Local Government Area of Kaduna State, Nigeria.

Methodology

This was a cross-sectional descriptive study conducted among schooling adolescents in three selected secondary schools in Sabon Gari Local Government Area (LGA) of Kaduna State. Sabon Gari LGA is one of the 23 LGAs of Kaduna state, situated in the northern zone of State. It covers a land area of about 60,000 square kilometers and has a projected (2016 from 2006 census) population of 322, 8740 with 22.3% of those numbers are adolescents age 10-19 years married and unmarried in public secondary school. The LGA comprises a heterogeneous mix of tribes; a preponderance Hausa and Fulani amidst Yoruba, Igbo, Gwari, etc. The predominant occupations of the people are farming, trading, and civil service, while Islam and Christianity are the main religions practiced by them (Umar, Sambo, Sabitu, Mande & Umar, 2019). The Local Government has eight public secondary and four private schools. Three of the public schools were randomly selected and they include: Government Secondary School Kwangila; Government Secondary School Bomo and Government Girls Secondary School Hayin Dogo Samaru. The study participants included students of junior secondary school 3 to Senior Secondary 2 classes in the selected schools between the ages of 13-19 years. The questionnaire was developed by the authors from the review of relevant literature. The sample size was determined using Fisher (1998) formula:

$$n = \frac{Z^2 \times pq}{d^2}$$

Where;

n = minimum sample size required;

Z = Standard normal deviation, set at 1.96 corresponding to 95% confidence level;

p = is the percent of the population estimated to have a particular characteristics, if no estimate available, use 50% (0.50)

q = complementary probability of p = 1-P

d = degree of precision required = 0.05

$$n = \frac{(1.96)^2 \times 0.50 \times 0.5}{(0.05)^2}$$

$$n = \frac{3.8416 \times 0.25}{0.0025}$$

$$n = \frac{0.9604}{0.0025}$$

n = 384

Formula for Calculating Non-Response Rate

$$\frac{1}{(1-f)}$$

Where f = expected attrition i.e. 10% (38) of all the subjects enrolled in the study
Therefore, 384+38 =422
The minimum sample size for this study was therefore 422 respondents.

The study deployed a multistage sampling method: The first stage involved the selection ofprimary sampling units, that is, the three schools, from the six districts in the study area. The second stage was the selection of the eligible classes within the schools while stage three involved the random selection of the participants drawn from the three selected schools. All the students were allowed to participate and those who gave consent to participate in the study were randomly selected. The instruments used for the study was a self-administered structured questionnaire and data was collected from 23rd to 26th of April 2019. The data obtained were entered, cleaned and coding was done where necessary, and analysis was carried out using SPSS statistics 20. Results were presented in tables, charts, graphs, and bivariate analysis using cross-tabulations to infer the relationship between relevant variables. Permission was obtained from Kaduna State Ministry of Education, (Kaduna State Quality Assurance Authority and written consent were obtained from every respondent before data collection. The confidentiality of their identity and the information was given was assured. Any participant who did not consent to participate in the study was excluded.

Results

Out of the 422 questionnaires distributed, only 338 were returned; giving a response rate of 80.1 percent. All the 338 were valid for analysis.

Participants' Socio-Demographic Characteristics

As shown in Table 1, 199 (51.3%) of the adolescents were between 15 - 17 years old with a mean age of 16.99±1.4 years. The majority 262 (67.5%) of the respondents are Hausa's and 291 (75%) were Muslims. This was a clear reflection that the study area was predominantly Hausa and a Muslim community. More than half 231 (59.4%) respondents were in Senior Secondary I and above one-third 136 (35.1%) were in SSII classes respectively.

Table 1: Demographic characteristics of the respondents (n=388)

Variables	Frequency	Percentage
Age (Years)		
13-14	18	4.6
15-17	199	51.3
18-19	171	44.1
Sex		
Male	151	38.9
Female	237	61.1
Ethnic group		
Hausa	262	67.5
Igbo	47	12.1
Yoruba	24	6.2
Others	55	14.2
Religion		
Christianity	97	25.0
Islam	291	75.0
Class		
JSS III	21	5.4
SSS I	231	59.4

SSS II	136	35.2

Research Question 1: *What is the awareness level of sexual and reproductive health information among the participants?*

The results in Table 2 revealed that majority of the adolescents had remarkable poor awareness level onthe sexual and reproductive health information questions. Out of the nine questions on the respondent's awareness level on SRH information, 56% of the adolescent were only aware of the menstrual health hygiene.

Table 2: Awareness level of sexual and reproductive health information among the participants (n=338)

Awareness items	Yes (%)	No (%)	Mean
Menstrual health hygiene	216 (55.7)	172 (44.3)	1.451
Prevention of sexually transmitted infection and HIV/AIDS	173 (44.6)	215 (55.4)	1.5541
Prevention of early and untended pregnancy	65 (16.8)	323 (83.2)	1.8325
Gender equality and equitable relationships	31 (8.0)	357 (92.0)	1.9201
Sexual and reproductive health rights	54 (13.9)	334 (86.1)	1.8608
Information, access, and correct use of modern contraception	26 (6.7)	362 (96.3)	1.933
Skills to negotiate for safe sex	46 (11.9)	342 (88.1)	1.8814
Prevention of infertility and access to its treatment	18 (4.6)	370 (96.4)	1.9536

Research Question 2: *What is the participant's sexual experience?*

As shown in Table 3, 143 (36.9%) of the respondents have had a sexual experience and out of the 143 who had the experience, 44 (30.7%) had it at the age of 17 years while a small segment (n=8; 5.5%) had sexual experience at the age of 12 years. On the reasons for the sexual experience, 54 (37.8%) had it because they want to have it while 22 (15.4%) of the respondents reported that, they had it because of peer pressure.

Table 3: Participants' Sexual Experience

Sexual experience (n=380)	Frequency	Percentage
Yes	143	36.9
No	237	61.1
Age at sexual debut (n=143)		
11 years	8	5.5
14 years	18	12.6
15 years	25	17.5
16 years	21	14.7
17 years	44	30.8
18 years	27	18.9
Reasons for the first sexual experience		
I want it	54	37.8
My partner wanted it	38	26.6
I was forced to do it (abused)	29	20.2
My peers pressured me	22	15.4

Figure 1 illustrates meeting the health information needs of the adolescents:only 21% attested that their sexual and reproductive health information needs were met; the majority (57%) of the respondents reported otherwise.

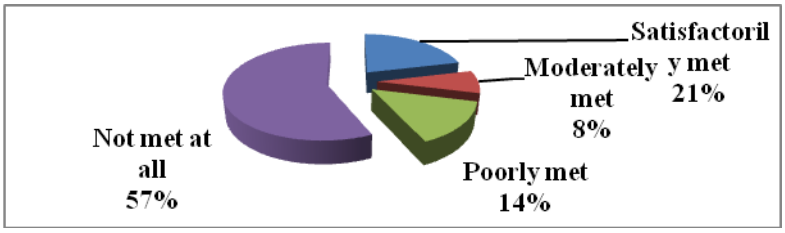

Figure 1: The distribution of participants' sexual and reproductive health information needs

On participants' experiences, results as shown infigure 2, more than a quarter (27%) of the participants experienced unintended pregnancy due to lack of access to sexual and reproductive health information, and 22% of them had experienced gender-based violence and abuse. Others (22%) reported sexually transmitted infections (STIs).

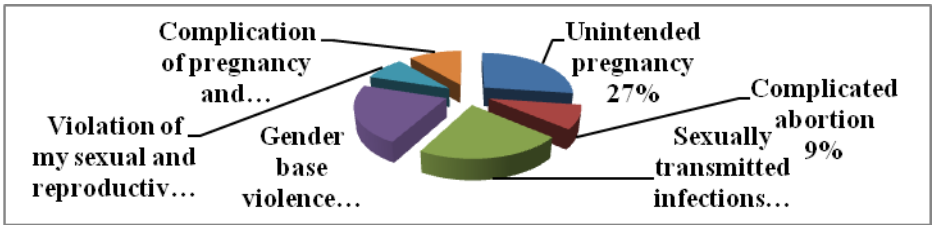

Figure 2: Distribution respondents based on problems experienced with lack of access to sexual and reproductive health information

Research Question 3: *What are the barriers to accessing sexual and reproductive health information among the participant?*
Among the barriers to access and open discussion of sexual and reproductive issues identified by participants were religious prohibition (n=88; 31.3%), cultural disapproval (n=69; 24.6%) and associated stigma and discrimination(n=32; 11.4%) (see Table 4). These were reported as the major impediments in accessing sexual and reproductive health information.

Table 4: Barriers to accessing sexual and reproductive health information among the participants (n=281)

Barriers	Frequency	Percentage	Means
My privacy and confidentially are not guaranteed	29	10.3	1.9253
Blames from the service provider	13	4.6	1.9665
The attitudes of the service provider are unwelcoming	19	6.8	1.9510
Stigma and discrimination	32	11.4	1.9175
Is against my religion's belief	88	31.3	1.7732
My culture does not accept that	69	24.6	1.8222
The information is not adolescents/ youth-friendly	18	6.4	1.9536
No such information around my community and school	13	4.6	1.9665

Discussion
The results of this study revealed that less than half of the respondents were between 18 – 19 years of age, indicating younger adolescents, a finding similar to an earlier study carried out by (Action Health Incorporated, 2011) among adolescents where they reported that about three-quarters of the respondents are older adolescents aged 15-19 and

about one-quarter of the respondents are younger adolescents aged 10-14 years.More than two-third are Hausa, indicating the predominant ethnic extraction of the study setting.

The remarkable poor awareness level about sexual and reproductive health information found in this study is contrary to the findings of Ibrahim, Bilkisu, Danjuma, Lateef, Abdulkarim & Wasiu, 2015)where they reported that the majority of surveyed secondary school students possessed relatively good knowledge of HIV/AIDS, reasonable sexual practices and positive attitude towards sexuality and reproductive health information. However, the finding of this study is similar to a recent report by Nmadu, Mohammed and Usman (2020) where they found that most of the adolescents had limited knowledge of different types of reproductive health services available at health facilities. This recent findings seem to suggest a clog in dissemination of health information to adolescents, because it is expected that access to such information should be improving over the years.

Meanwhile, from the results of the study, a good number (little above one-third) of the respondents had had some active sexual experiences by age 17. Early exposure to sexual experiences had previously been reported by Ibrahim et al. (2015)in their finding, nearly a quarter of the participants (24%) had had sexual intercourse. In this study, more than a third of the respondents voluntarily had their first sexual experience, as against the report of Deepanjali and Sukhjeet (2020) when they reported that few of the respondents were forced to have sex, even with same-sex and with the opposite sex.

Overall, findings from this study show that the majority of the respondents reported that their sexual and reproductive health information needs were not met, as also previously reported from Uganda, Nigeria, and Botswana (Barker and Das, 2004; Lesedi et al., 2011; Atuyambe, Kibira, Bukenya, Muhumuza, Apolot&Mulogo, 2015). Most African countries do not have sufficient trained staff to provide and cater for the SRH needs of adolescents and about half of the nurses reported that the needs of the adolescents were not being met in their facilities (Agampodi et al., 2008; Pacifique, Rosine, Isabelle, Jean, Croix, Roseline, Jean & Justin, 2020).

Deepanjali and Sukhjeet (2020) reported that the present education structure has restricted impact in providing the knowledge of SRH to adolescents, and this has led to many misbelieves and indulgence into unsafe or risky sexual activities adolescents; consequently leading to sexually transmitted diseases (STDs), unwanted pregnancies, substance abuse, and unsafe abortions are important problems in adolescents. This study reports that respondents experienced unintended pregnancy needs, gender-based violence, and abuse, and sexually transmitted infection due to lack of access to sexual and reproductive health information. On barriers, this study has shown that less than a quarter of the participants reported that religious belief, cultural factors, and stigma and discrimination were the major ranked impediments in accessing sexual and reproductive health information.Our results are similar to what (Nmadu et al., 2020) studyhave reported concerning challenges faced by adolescents while seeking or trying to access SRH services ranging from limited availability of specialized trained health care providers capable of catering to adolescents' health needs, cultural mores, and myths, religious beliefs, and peer pressure. Inadequate knowledge about reproductive health services, poor attitudes of adolescents towards RHS, social such as parental influence, community and religious norms, finance constraints and stigma; and health system factors such as poor at service providers and inconvenient health facility opening hours hinders adolescents from utilizing reproductive health services were previously reported as barriers (Nmadu et al., 2020).

Conclusion

There is a significant gap in adolescents' sexuality and reproductive health needs awareness. Diverse experiences which cut across different socio-demographic strata exist among in-school adolescents in secondary schools in the study setting. Many factors such as religious belief, cultural acceptance, and stigma and discriminationare the major impediments in accessing sexual and reproductive health information.

Recommendations

Based on the findings of this study, the following are recommended:

i. Consideration and support should be employed on schooling adolescents in other to increase SRH Awareness.
ii. There should be more focus on ensuring strengthening and sustaining communication between parents and children on matters relating to their SRH needs.
iii. We highly recommend that school-based sexuality and reproductive health education should be formalized, implemented, and strengthened in Nigeria.
iv. A qualitative study on SRH among adolescents should be encouraged as it would reveal new trends and activities of the subject issue.

References

Action Health Incorporated. (2011). *A Promise to Keep: Supporting Out-of-School Adolescent Girls to Reach Their Potential*, AHI, Lagos, Nigeria

Agampodi, S.B., Agampodi, T.C., & Ukd, P. (2008). Adolescent's perception of reproductive health care services in Sri Lanka. *BMC Health Service Resource*; 8:1–8.

Animasahun, V., Sholeye, O., & Oduwole, A. (2016). Promoting the sexual and reproductive health of adolescent females in Ijebu-Ode, southwest, Nigeria: A study of sexual risk-taking. *International Journal of Adolesc Med Health*; 29(6):20160021. https://doi.org/10.1515/ijamh-2016-0021

Atuyambe, L.M., Kibira., S.P.S., Bukenya. J., Muhumuza., C, Apolot., R.R., & Mulogo, E. (2015). Understanding sexual and reproductive health needs of adolescents: Evidence from a formative evaluation in Wakiso district, Uganda Adolescent Health. *Reprod Health*; 12(1):1–10

Barker, G., & Das., A. (2004). Men and sexual and reproductive health: the social revolution. *Int J Men's Health*. 3(3):147–53.

Blum, R.W., & Nelson-Mmari., K. (2004).The health of young people in a global context. *Journal Adolescents Health*. 35:402–18. DOI: 10.1016/S1054-139X(03)00537-8

Chandra-Mouli, V., Ferguson, B.J., Plesons, M., Paul, M., Chalasani, S., & Amin., A. et al. (2019). The political, research, programmatic, and social responses to adolescent sexual and reproductive health and rights in the 25 years since the international conference on population and development. *J Adolesc Health*. 65(6 Suppl.): S16–40. DOI: 10.1016/j.jadohealth.2019. 09.011

Chandra-Mouli, V., Svanemyr, J., Amin, A., Fogstad, H., Say, L., & Girard, F. et al. (2015). Twenty years after an international conference on population and development: Where are we with adolescent sexual and reproductive health and rights?. *Journal of Adolescent Health;* 56(1), S1–S6, https://doi.org/10.1016/j.jadohealth.2014.09.015

Curtis, A.C. (2015). Defining Adolescence; *J Adolesc Family Health;* 7:2. Available online at: https://scholar.utc.edu/jafh/vol7/iss2/2

Deepanjali. D. D., & Sukhjeet, S.C. (2020). Knowledge about Sexual and Reproductive Health in Adolescent School-Going Children of 8th, 9th, and 10th Standards; *Journal of Psychosexual Health* 2(1) 56–62.

Fisher, L.D. (1998). Self-designing clinical trials. *Statistics in Medicine*, 17:1551-1562

Hale, D.R., & Viner, R.M. (2016). The correlates and course of multiple health risk behaviour in adolescence. *BMC Public Health;* 16(1):458.

Ibrahim, T.A., Bilkisu, A.A., Danjuma, A., Lateef, M.O., Abdulkarim, S., & Wasiu, A.A. (2015). HIV/AIDS Awareness among Secondary Schools' Adolescents in South-Western Nigeria: A Correlate to Strengthen Advocacy and Strategic Sexuality Education Programs. *American Journal of Health Research*, Vol. 3, No.1-1, pp.61-67. DOI: 10.11648/j.ajhr.s.2015030101.19

Lesedi, C., Hoque, M.E., & Ntuli-Ngcobo, B. (2011). Investigating user-friendliness of the sexual and reproductive health services among youth in Botswana. *Southeast Asian J Trop Med Public Health*; 42(6):1431–43.

Liang, M., Simelane, S., Fillo, G.F., Chalasani, S., Weny, K., & Canelos, P.S. et al. (2019). The state of adolescent sexual and reproductive health. *J. Adolesc. Health.* 65:S3–15. DOI: 10.1016/j.jadohealth.2019.09.015

Mchome, Z., Richards, E., Nnko, S., Dusabe, J., Mapella, E., & Obasi, A. (2015). A "mystery client" evaluation of adolescent sexual and reproductive health services in health facilities from two regions in Tanzania. *PLoS One*; 10(3):1–11.

Morris, J.L., & Rushwan, H. (2015). Adolescent sexual and reproductive health: The global challenges. *Int J Gynaecol Obstet.*; 131(21): S40–S42.

Newman, L., Rowley, J., Vander, H.S., Wijesooriya, N.S., Unemo M., & Low, N. et al. (2015). Global estimates of the prevalence and incidence of four curable sexually transmitted infections in 2012 based on systematic review and global reporting. *PLoS ONE*. (2015) 10:e0143304. DOI: 10.1371/journal.pone.0143304

Nmadu, A.G., Mohammed, S., & Usman, N.O. (2020). Barriers to adolescents' access and utilization of reproductive health services in a community in north-western Nigeria: A qualitative exploratory study in primary care. *Afr J Prm Health Care Fam Med;* 12(1). (https://doi.org/10.4102/phcfm.v1 2i1.2307)

Odo, A.N., Samuel, E.S., Nwagu, E.N., Nnamani, P.O., & Atama, C.S. (2018). Sexual and reproductive health services (SRHS) for adolescents in Enugu state, Nigeria: a mixed-methods approach. *BMC Health Serv Res*.; 18(1):1–12. 23.

Pacifique, N., Rosine, U., Isabelle, K., Jean, D.L., Croix, N., Roseline, D.D., Jean, B.N., & Justin, N.K. (2020). Availability, accessibility, and quality of Adolescent Sexual and Reproductive Health (SRH) services in urban health facilities of Rwanda: a survey among social and healthcare providers, *BMC Health Services Research*; 20:697 https://doi.org/10.1186/s12913-020-05556-0

Population Reference Bureau. (2012). *Status Report on Adolescents and Young People in sub-Saharan Africa:* Opportunities and Challenges. United Nations Population Fund (2012)

Sychareun, V., Vongxay, V., Houaboun, S., Thammavongsa, V., Phummavongsa, P., & Chaleunvong, K. et al. (2018). Determinants of adolescent pregnancy and access to reproductive and sexual health services for married and unmarried adolescents in rural Lao PDR: A qualitative study. *BMC Pregnancy Childbirth;* 18(1) Available from: https://pubmed.ncbi.nlm.nih.gov/29884139/.

Tylee, A., Haller, D.M., Graham, T., Churchill, R., & Sanci., L.A. (2007). Youth-friendly primary-care services: how are we doing and what more needs to be done? *Lancet;* 369(9572), 1565–1573, https://doi.org/10. 1016/S0140-6736(07)60371-7 PMID: 17482988

Umar, A.A., Sambo, M.N., Sabitu, K., Mande, A.T., & Umar, J. (2019). Personal hygiene of street-food vendors in Sabon-Gari local government area of Kaduna State, Nigeria. *Niger J Basic Clin Sci;*16:114-20

United Nations Population Fund. [UNFPA]. (2017). *Adolescent pregnancy: A review of the evidence [home page Internet]*. 2013 [cited 2017 May 10]. Available from https://www.unfpa.org/sites/default/files/pub-pdf/ADOLESCENT%20PREGNANCY_UNFPA.pdf.(https://www.unfpa.org/sites/default/files/pubpdf/

World Health Organization. (1998). The Second Decade: Improving Adolescent Health and Development.Geneva:

World Health Organization. (2003). Adolescent-friendly health services: An agenda for change [homepage on the Internet]. [cited 2021 Apr 03]. Available from: http://apps.who.int/iris/bitstream/10665/67923/1/WHO_FCH_CAH_02.14.pdf

World Health Organization. (2011). *The sexual and reproductive health of young adolescents in developing countries: reviewing the evidence, identifying research gaps, and moving the agenda: Report of a WHO technical consultation [homepage on the Internet]*. 2011 [cited 2021 Apr 03]. Available at: https://www.who.int/immunization/hpv/target/the_sexual_and_reproductive_health_of_young_adolescents_who_2011.pdf

World Health Organization. (2018). Recommendations on adolescent sexual and reproductive health and rights. Appia 211, Geneva 27 Switzerland.

World Health Organization. (2016). Adolescent Development. Available online at: http://www.who.int/maternal_child_adolescent/topics/adolescence/dev/ en/ (accessed December 21, 2016).