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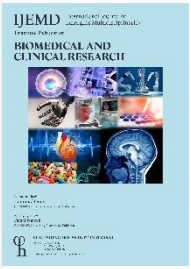

Perception and Attitude of Health Workers in Tertiary Hospitals in Northcentral Nigeria towards Sexual and Reproductive Health Services for Unmarried Adolescents

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Abstract

Adolescents are faced with the challenges of having access to and the utilization of quality sexual and reproductive health services, and one of the barriers responsible for this situation is the negative personal attributes of service providers. This study aimed to assess the perception and attitude of health workers in the tertiary hospitals in Plateau State, Northcentral Nigeria towards sexual and reproductive health services for unmarried adolescents. A cross-sectional study was conducted in December 2020 among 208 doctors and nurses/midwives who were selected using a stratified sampling technique. Data were collected using a semi-structured self-administered questionnaire and analyzed using the Statistical Product and Service Solutions version 23. The mean age of the respondents was 37.1 ± 9.1 years, 131 (63.0%) were doctors and females constituted 120 (57.7%). One hundred and twenty-nine (62.0%) had a good perception, while 105 (50.5%) had a positive attitude towards sexual and reproductive health services for unmarried adolescents. Younger age below 55 years and a good perception were found to be predictors of a positive attitude towards sexual and reproductive health services for unmarried adolescents. A considerable number of the health workers in the tertiary hospitals in Plateau state had a negative attitude towards sexual and reproductive health services for unmarried adolescents, an attribute that was significantly seen more in those who were older and had a poor perception. There is a need to improve health workers' attitudes towards the provision of sexual and reproductive health services for unmarried adolescents.

Keywords: Attitude; Health workers; Perception; Sexual and Reproductive Health services; Unmarried Adolescents.

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1. Introduction

Adolescents, who make up one-sixth of the world's population, are a unique set of people transitioning to adulthood from childhood.[1] Generally considered from the ages 10 to 19 years, adolescence is a unique stage of human development characterized by rapid physical, cognitive as well as psychological growth and full of potential for the present and future.[1,2] Nigeria has a young population with adolescents making up 22% of its total population,[3] implying significant investment in health care is needed to ensure health services are tailored to their needs and fit their uniqueness.[4]

Adolescents are faced with enormous sexual and reproductive health (SRH) challenges. Intimate partner violence concerning women starts in adolescence with nearly one in every four married/partnered 15–19 year olds reporting physical and/or sexual violence from an intimate partner.[5] About 43% of sexually active women aged 15 – 19 in low and middle-income countries wanting to avoid pregnancy have unmet needs for modern contraception resulting in about 10 million unintended pregnancies and 5.7 million abortions – mostly unsafe, annually.[6] Furthermore, about a third of childbirth by adolescent mothers occur outside a health facility without a skilled birth attendant,[6] while the vast majority of new HIV infections in sub-Saharan Africa are reported among adolescent girls.[7]

Hence, adolescents are in dire need of SRH services including information and preventive services. Nevertheless, these services are not accessible by all either because they are not available or are provided in a manner that makes adolescents feel alienated.[8] Negative attitudes of health workers have been reported to constitute significant barriers to the utilization of SRH services by adolescents when available.[9–15] As a result of these difficulties in access to SRH services, many adolescents lack adequate knowledge and skills to enjoy optimal SRH leading to health problems such as unwanted pregnancy, unsafe abortion and sexually transmitted infections including HIV/AIDS which are associated with a higher maternal mortality and morbidity in adolescents.[8,16] The assessment of tertiary-level health workers' perception and attitude towards the provision of SRH services to unmarried adolescents in Plateau State, Northcentral Nigeria has not been adequately investigated. Therefore, this study attempted to fill this gap by assessing the perception and attitude of health workers towards SRH services for unmarried adolescents and their predictors to provide evidence for healthcare administrators and stakeholders to plan interventions in our setting.

Method

This was a multi-centre cross-sectional study carried out in December 2020 across the three tertiary hospitals in Plateau State, Northcentral Nigeria namely: Jos University Teaching Hospital, Bingham University Teaching Hospital and Plateau State Specialist Hospital. Plateau State has an estimated population of over 4 million people,[17] and adolescents constitute about 23% of the entire population.[18] There are 1470 health facilities in Plateau State, out of which 85.2%, 14.5% and 0.3% are primary, secondary and tertiary hospitals respectively.[19] In total, there are over 1,000 nurses and doctors in the three tertiary hospitals. Sexual and reproductive health services for adolescent clients in these health facilities are provided primarily by doctors and nurses in the General Outpatient Department (GOPD) and obstetrics and gynaecology (O&G) department.

Doctors and nurses/midwives in the GOPD and O&G departments in the three hospitals constituted the study population. All doctors and nurses/midwives in the two departments were eligible to be included.

Those who were on leave, posting or training outside the hospital, and therefore unavailable to be interviewed were excluded. Also, interns were excluded because they were not permanent staff of the institutions and their appointments and stay in the hospitals were short-lived.

The minimum sample size was determined using the Cochran formula ($n=Z^2pq/d^2$) at a precision level (d) of 5% and p = level of positive attitude towards adolescents' SRH by health workers as obtained from a previous similar study, was 84%.[20] To compensate for non-response, 10% of the calculated minimum sample size was added to arrive at a final sample size of 230.

The respondents were stratified according to the two cadres; doctors and nurses/midwives, and proportionate-to-size allocation of the sample size was done among the two cadres. The allocated size for each cadre was then shared equally among the two departments (O&G and GOPD) in each of the three institutions, and respondents were selected through consecutive sampling until the allocated size was reached.

Data was collected using a pretested semi-structured self-administered questionnaire whose content validity, face validity, and internal consistency were assessed by a panel of experts before data collection and yielded a Cronbach alpha of 0.76. The questionnaire contained three sections: socio-demographic information, perception and attitude towards SRH services for unmarried adolescents. The section on Perception had 35 questions while the section on attitude had 24 questions. The response to each question was a 4-point rating scale (strongly agree, agree, disagree and strongly disagree). In order to take a clear stand on each question the option of "undecided" was left out. A score of 4 was awarded to the most favourable response and 1 to the least favourable response, therefore giving a maximum attainable score of 140 and 96 for perception and attitude respectively. For categorizing the total perception and attitude scores, the total scores were converted to percentages, a percentage of ≥ 75%, corresponding to a minimum score of 3 per question, was categorized as good/positive and < 75% as poor/negative. For the perception scores, a score of ≥ 105 was adjudged as good perception and < 105 as poor perception. For the attitude scores, a score of ≥ 72 was categorized as positive attitude < 72 as negative attitude.

Data were analyzed using the Statistical Product and Service Solutions (SPSS) software version 23. The sociodemographic characteristics of the respondents and their perceptions and attitudinal categories were presented using frequencies and proportions in frequency tables. Multivariable logistic regression was used to determine predictors of perception and attitude. Adjusted odds ratios (AORs) were used to express the strength of the association alongside the 95% confidence interval (CI) for the AORs, while a p-value of ≤ 0.05 was considered statistically significant.

Ethical approvals were obtained from the institutional research and ethics committees of the three hospitals. Additionally, written informed consent was obtained from the health workers who completed the questionnaires.

Results

A total of 208 respondents out of 230 completed and returned the questionnaires, giving a response rate of 90.4%. Their ages ranged from 23 – 59 years with a mean age of 37.1± 9.1 years and 108 (51.9%) respondents were aged 30 – 39 years. One hundred and twenty (57.7%) of the respondents were females, 131 (63.0%) were doctors, 125 (60.1%) respondents had less than 10 years of working experience, and 62 (29.8%) rated their knowledge of ASRH to be low (Table 1).

Table 1: Sociodemographic characteristics of the respondents (n = 208)

Variable	frequency	%	Mean ± SD
Age group (years)			
23 – 29	38	18.3	37.1± 9.1
30 – 39	108	51.9	
40 – 49	29	13.9	
50 – 59	33	15.9	
Sex			
Male	88	42.3	
Female	120	57.7	
Cadre			
Doctor	131	63.0	
Nurse/Midwife	77	37.0	
Highest educational qualification			
Diploma	30	14.4	
First degree	163	78.4	
Postgraduate degree	15	7.2	
Religion			
Catholic	46	22.1	
Protestant	153	73.6	
Islam	9	4.3	
Years of work experience			
< 10 years	125	60.1	
≥ 10 years	83	39.9	
Marital status			
Not married+	66	31.7	
Married	142	68.3	
Taught ASRH in school			
Yes	168	80.8	
No	40	19.2	
Received continuing education/training on ASRH			
Yes	123	59.1	
No	85	40.9	
Self-rated knowledge of ASRH			
High	62	29.8	
Average	138	66.3	
Low	8	3.9	

+ Single, separated, divorced, widowed

One hundred and twenty-nine (62.0%) of the respondents had a good perception (Table 2) whereas 105 (50.5%) had a positive attitude towards SRH services for unmarried adolescents (Table 3).

Table 2: Perception of respondents on SRH services for unmarried adolescents (n = 208)

Perception	Frequency	%
Good	129	62.0
Poor	79	38.0

Table 3: Attitude of respondents towards SRH services for unmarried adolescents (n = 208)

Attitude	Frequency	%
Positive	105	50.5
Negative	103	49.5

On multivariable logistic regression, sociodemographic characteristics, self-rated knowledge of ASRH, being taught ASRH in school, years of work experience and previous training/continuing education on ASRH were not predictors of good perception of SRH services for unmarried adolescents among the respondents (Table 4).

Table 4: Predictors of good perception of SRH services for unmarried adolescents

Variable	AOR	95% CI	p-value
Age group			
23 – 29	3.56	0.69 – 18.38	0.129
30 – 39	1.39	0.39 – 4.96	0.616
40 – 49	0.61	0.19 – 1.95	0.400
50 – 59	1	-	-
Sex			
Male	2.15	0.96 – 4.83	0.063
Female	1	-	
Cadre			
Doctor	2.82	0.99 – 7.97	0.051
Nurse/Midwife	1	-	
Religion			
Catholic	1.96	0.87 – 4.43	0.104
Islam	0.59	0.13 – 2.73	0.498
Protestant	1	-	
Marital status		0.27 – 1.35	

Not married+	0.61	-	0.221
Married	1		
Highest educational qualification		0.17 – 4.79	
Diploma	0.90	0.09 – 1.60	0.903
First degree	0.38	-	0.188
Postgraduate degree	1		
Years of work experience		0.27 – 1.82	
< 10 years	0.70	-	0.458
≥ 10 years	1		
Taught ASRH in school		0.73 – 3.63	
Yes	1.63	-	0.235
No	1		
Received continuing education/training on ASRH		0.53 – 2.12	
Yes	1.06	-	0.877
No	1		
Self-rated knowledge of ASRH		0.12 – 4.32	
High	0.71	0.11 – 3.52	0.706
Average	0.63	-	0.630
Low	1		

+Single, separated, divorced, or widowed, ASRH = Adolescent Sexual and Reproductive Health

Meanwhile, respondents aged 40 – 49 years were about eight times more likely (AOR: 7.58, 95% CI: 1.65 – 34.77, p: 0.009) to have a positive attitude than those aged 50 – 59 and respondents with a poor perception were 96% less likely (AOR: 0.04, 95% CI: 0.02 – 0.11, p <0.0001) to have a positive attitude towards SRH services for unmarried adolescents (Table 5).

Table 5: Predictors of a positive attitude towards SRH services for unmarried adolescents

Variable	AOR	95% CI	p-value
Age group			
23 – 29	4.09	0.56 – 29.91	0.165
30 – 39	2.82	0.57 – 13.95	0.205
40 – 49	7.58	1.65 – 34.77	0.009*
50 – 59	1	-	-
Sex			
Male	1.29	0.54 – 3.11	0.569
Female	1	-	
Cadre			
Doctor	1.32	0.37 – 4.80	0.670
Nurse/Midwife	1	-	
Religion			
Catholic	1.08	0.44 – 2.66	0.862
Islam	2.55	0.41 – 15.72	0.313
Protestant	1	-	
Marital status			
Not married+	0.49	0.19 – 1.25	0.135
Married	1	-	
Highest educational qualification			
Diploma	0.44	0.07 – 2.96	0.401
First degree	0.85	0.20 – 3.63	0.828
Postgraduate degree	1	-	
Years of work experience			
< 10 years	1.05	0.35 – 3.11	0.935
≥ 10 years	1	-	
Taught ASRH in school			
Yes	0.45	0.17 – 1.17	0.102
No	1	-	
Received continuing education/training on ASRH			
Yes	0.87	0.38 – 1.96	0.731
No	1	-	
Self-rated knowledge of ASRH			
High	3.15	0.39 – 25.18	0.280
Average	2.66	0.38 – 18.80	0.326
Low	1	-	
Perception			
Poor	0.04	0.02 – 0.11	<0.0001*
Good	1	-	

* Statistically significant, +Single, separated, divorced, or widowed, ASRH = Adolescent Sexual and Reproductive Health

Discussion

Findings from this study show that more than half of the respondents had good perceptions towards SRH services for unmarried adolescents. Poor perception towards SRH services for unmarried adolescents was reported in less than half of the respondents and this contrasts with a study in Swaziland where a majority were reported to have a negative perception towards adolescents' SRH services. Their perception was seen to be clouded by moral doubts, values and ethical dilemmas. Also, participants in this study were only doctors and nurses/midwives who are expected to be more knowledgeable on adolescent SRH, by their training, as compared to the participants in the study in Swaziland where nurse assistants were included.[20]

The study revealed a positive attitude towards SRH services for unmarried adolescents in a little above half of the respondents while almost half were reported to have a negative attitude. The positive attitude reported is lower than that reported in Abakaliki among healthcare workers where about three-quarters of the respondents had a good attitude towards offering contraceptives to adolescents.[21] Similarly, a higher proportion of health workers in Ethiopia had positive attitudes towards SRH services for unmarried adolescents.[22] This might be attributable to a higher number of the respondents who have received continuing medical education on adolescent sexual and reproductive health as compared to respondents in this study where almost half of the respondents had not received continuing medical education on adolescent SRH. This however contrasts with what is expected of workers in tertiary health facilities as compared to workers in primary and secondary health facilities in terms of continuing medical education.

Multivariate analysis in this study showed no statistically significant association between perception towards SRH services for unmarried adolescents and sociodemographic characteristics, self-rated knowledge of adolescent SRH, work experience, cadre, educational level, and prior receipt of teaching on adolescent SRH. There was however a statistically significant association between perception and attitude towards SRH services for unmarried adolescents on one hand and attitude and age on the other. Older healthcare workers are likely to have adolescents as children and hence have their perceptions and attitudes influenced by morals. Age was however not a predictor of positive attitude towards SRH services for unmarried adolescents in the study in Ethiopia.[22] Religion and marital status were all seen not to influence attitudes towards SRH services for unmarried adolescents. This is similar to the findings in the study in Abakaliki where both religion and marital status didn't influence attitude.[21] In Ibadan, however, religion was seen to influence attitude whereas marital status didn't.[23] Also, educational level and training on SRH services were seen not to be predictors of a positive attitude toward sexual and reproductive health services for unmarried adolescents. However, in the study in Ethiopia, marital status, educational level and training on SRH services were seen to be predictors of negative attitudes towards sexual and reproductive health services for unmarried adolescents.[22]

From this study, job-related factors (experience and cadre) and education did not influence healthcare workers' perceptions and attitudes towards providing services to unmarried adolescents. The predictive factors for a positive attitude towards service provision for unmarried adolescents could inform the identification of target groups and the development of interventions by health administrators to improve providers' attitudes. Such efforts may improve service uptake and utilization among unmarried adolescents, as the relatively high level of poor attitude observed in this study could negatively influence the willingness of the healthcare workers to provide the required SRH services promptly and effectively.

This study is not without limitations as it could not investigate the influence of the health workers' perception and attitude on actual service provision. Therefore, future research should investigate the link between perception and attitude with practice.

2. Conclusion

Many of the health workers demonstrated poor perception and negative attitudes towards SRH services for unmarried adolescents. A significant positive association was observed between perception and attitude on one hand and attitude and age on the other.

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Conflicts of interest
There are no conflicts of interest.

3. References

[1] World Health Organization. Adolescent health [Internet]. Heal. Top. [cited 2021 Nov 8];Available from: https://www.who.int/health-topics/adolescent-health#tab=tab_1 (2021).
[2] Bay, J.L., Morton, S.M. & Vickers, M.H. Realizing the Potential of Adolescence to Prevent Transgenerational Conditioning of Noncommunicable Disease Risk: Multi-Sectoral Design Frameworks. Healthc (Basel, Switzerland) [Internet] [cited 2023 Nov 8];4(3). Available from: https://pubmed.ncbi.nlm.nih.gov/27417627/ (2016).
[3] Rafael, C., Seemeen, S., Edmore, M. & Odutolu, O. Adolescent Sexual and Reproductive Health in Nigeria [Internet]. Washington, DC. Available from: http://hdl.handle.net/10986/21626 (2015).
[4] World Health Organization. Alcohol [Internet]. Heal. Top. [cited 2020 Apr 29];Available from: https://www.who.int/health-topics/alcohol#tab=tab_2 (2020).
[5] WHO on behalf of the United Nations Working Group on Violence against Women Estimation and Data. Violence against women—prevalence [Internet]. Geneva: 2021. Available from: https://www.who.int/publications/i/item/9789240022256 (2018).
[6] Guttmacher Institute. From Bad to Worse: The COVID-19 Pandemic Risks Further Undermining Adolescents' Sexual and Reproductive Health and Rights in Many Countries [Internet]. COVID-19 Youth SRHR [cited 2023 Nov 7];Available from: https://www.guttmacher.org/article/2020/08/bad-worse-covid-19-pandemic-risks-further-undermining-adolescents-sexual-and (2020).
[7] The Joint United Nations Programme on HIV/AIDS (UNAIDS). Trends of new HIV infections [Internet]. Glob. HIV AIDS Stat. — Fact sheet [cited 2021 Nov 7];Available from: http://aidsinfo.unaids.org. (2021).
[8] World Health Organization. Adolescent Sexual Reproductive Health [Internet]. Activities [cited 2023 Nov 7];Available from: https://www.who.int/southeastasia/activities/adolescent-sexual-reproductive-health (2023).

[9] L'Engle, K.L., Jackson, C. Socialization influences on early adolescents' cognitive susceptibility and transition to sexual intercourse. *J Res Adolesc.* **18** (2), 353–78 (2008).
[10] Okereke, C.I. Assessing the prevalence and determinants of adolescents' unintended pregnancy and induced abortion in Owerri, Nigeria. *J Biosoc Sci.* **42** (5), 619–32 (2010).
[11] Onukwugha, F.I., Hayter, M. & Magadi, M.A. Views of service providers and adolescents on use of sexual and reproductive health services by adolescents: A systematic review. *Afr J Reprod Health* [Internet] [cited 2020 Nov 10]. **23** (2), 134–47. Available from: 10.29063/ajrh2019/v23i2.13 (2019).
[12] Thongmixay, S. et al. Perceived barriers in accessing sexual and reproductive health services for youth in Lao People's Democratic Republic. *PLoS One*. **14** (10), e0218296 (2019).
[13] Shrestha, S. & Wærdahl, R. Girls' access to adolescent friendly sexual and reproductive health services in Kaski, Nepal. *Asia Pacific Policy Stud.* **7** (3), 278–92 (2020).
[14] Abubakari, S.W. et al. Young people's experiences in accessing sexual and reproductive health services in sub-Saharan Africa from 1994 to 2019 - A content analysis. *Int J Sex Reprod Heal Care.* **3** (1), 017–26 (2020).
[15] Chilinda, I., Hourahane, G., Pindani, M., Chitsulo, C. & Maluwa, A. Attitude of health care providers towards adolescent sexual and reproductive health services in developing countries: A systematic review. *Health (Irvine Calif)*. **6** (14), 1706–13 (2014).
[16] Morris, J.L. & Rushwan, H. Adolescent sexual and reproductive health: The global challenges. *Int J Gynecol Obstet*. **131,** S40–2 (2015).
[17] Plateau State Government of Nigeria. At a glance [Internet]. Plateau [cited 2021 Jan 2];Available from: https://www.plateaustate.gov.ng/plateau/at-a-glance (2019).
[18] African Development Bank. Population Distribution by Age 2006 [Internet]. Niger. Data Portal [cited 2021 Mar 23];Available from: https://nigeria.opendataforafrica.org/xlomyad/population-distribution-by-age-2006?state=Plateau (2012).
[19] Federal Ministry of Health Nigeria. Distribution of Hospitals and Clinics in Nigeria [Internet]. Niger. Heal. Facil. Regist. [cited 2021 Mar 21];1–4. Available from: https://hfr.health.gov.ng (2019).
[20] Mngadi, P., Faxelid, E., Zwane, I., Höjer, B. & Ransjo-Arvidson, A. Health providers' perceptions of adolescent sexual and reproductive health care in Swaziland. *Int Nurs Rev.* **55,** 148–55 (2008).
[21] Ajah, Obi, V., Ozumba, B.O.U.U., Onwe, O., Ezeonu, C. et al. Attitude of healthcare providers to adolescent contraception in Abakaliki, South East Nigeria. *Int J Med Heal Dev*. **20** (1), 13–20 (2015).
[22] Tilahun, M., Mengistie, B., Egata, G. & Reda, A.A. Health workers ' attitudes toward sexual and reproductive health services for unmarried adolescents in Ethiopia. *Reprod Health* [Internet] **9,** 19–25. Available from: http://www.reproductive-health-journal.com/content/9/1/19 (2012).
[23] Ahanonu EL. Attitudes of Healthcare Providers towards Providing Contraceptives for Unmarried Adolescents in Ibadan , Nigeria. J Fam Reprod Heal [Internet] **8** (1), 33–40. Available from: jfrh.tums.ac.ir (2014).

Authors' contributions

NBN: Conceptualization, Writing – original draft, Writing – review & editing
NGB: Conceptualization, Writing – original draft, Writing – review & editing
CAN: Conceptualization, Writing – original draft, Writing – review & editing
EAE: Writing – review & editing