



Knowledge and experience of unsafe abortion among in-school adolescents in a country with restrictive abortion laws.

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Abstract

Unintended pregnancies among the adolescents usually result in unsafe abortion especially in countries with restrictive abortion laws like Nigeria. We aimed at evaluating the knowledge of in-school adolescents about methods and complications of unsafe abortions and their actual experiences in Ekiti State, Nigeria. This was a cross-sectional cohort study involving 192 senior public high students across all the 16 local government areas in Ekiti State, Nigeria. Self-administered structured questionnaires were used to obtain data from participants during a summer youth camp in August, 2019. The knowledge of abortion and its complication was graded into good, fair and poor. Association between the knowledge of

abortion and its complications and baseline variables were tested with Pearson's chi square. A p value < 0.05 was taken as statistically significant. None of the respondents admitted to have ever had abortion before the youth camp. Seventy-one (37%), 81(42.2%) and 41(20.8%) had good, fair and poor knowledge respectively about abortion methods and complications. There was a significant association between age at sexual debut and knowledge of abortion and its complications. ($\chi^2 = 13.95$, $p = 0.007$)

Knowledge of abortion and its complications among in-school adolescents was average. Policies should be tailored towards improving the accurate knowledge of abortion and its complication among adolescents.

Key words: unsafe abortion, adolescents, complications, knowledge

Introduction

The onset of adolescence brings biological, psychological and social changes that make adolescents vulnerable to sexual and reproductive health challenges. Sexual experimentation is one of the characteristics of this transition period, leading to life defining events like first sexual intercourse, first marriage and parenthood (Kyilleh et al, 2018; Sarker et al, 2019). These changes also predispose them to human right abuses like forced marriages and sexual assaults resulting in negative sexual and reproductive consequences (Sarker et al, 2020). These consequences include unwanted pregnancy, unsafe abortion, early marriage and sexually transmitted infections (Okereke, 2010). It has been documented that lack of knowledge about the consequences of unprotected sexual intercourse predisposes them to these challenges (Kyilleh et al, 2018; Sarker et al, 2020; Okereke, 2010; Darroch et al, 2016).

In the developing world, at least 10 million unintended pregnancies occur among adolescents aged 15-19 years, resulting in 3.9 million unsafe abortions among them annually! (Darroch et al, 2016). Globally, complications during pregnancy and childbirth are the leading cause of death among adolescent girls aged 15- 19 years (Neal et al, 2012). Unsafe abortion is responsible for 4.7%-13.2% of maternal mortalities (WHO, 2015). Women including adolescents with unwanted pregnancies usually resort to unsafe abortions when they cannot access safe abortions in situations with restrictive abortion laws, poor availability of services, high cost, stigma, conscientious objections of health care providers and unnecessary requirements like third party authorization (Say et al, 2014).

In Nigeria, where abortion is also available only in limited circumstances, the majority of patients who receive treatment for complications of abortion are adolescents (Tabahi, 2020; Radhakrishna et al, 1997; Adler et al, 2003). A hospital based study from our centre reported that adolescents contributed 34% to the burden of complications of unsafe abortions (Ibrahim et al, (2012). Other factors contributing to this burden in Nigeria are stigma, inaccessibility of contraceptives by adolescents, poor availability of services and conscientious objections of health care providers (Radhakrishna et al, 1997; Adelekan et al, 2017; Olofinbiyi et al, 2019).

Having established high burden of complications of unsafe abortions among adolescents in Nigeria from prior studies (Adler et al, 2003; Ibrahim et al, 2012; Adelekan et al, 2017; Olofinbiyi et al, 2019), it is pertinent to undertake a study to estimate the knowledge and practice of abortion among adolescents outside the health facilities. Osakinle et al reported a relationship between reproductive health knowledge and unsafe abortion practices among female adolescents in secondary schools in Ekiti State, Nigeria. This previous study did not investigate their knowledge about methods and complications of unsafe abortion, which may

have impact on their reproductive choices and decisions. We aimed at evaluating the knowledge of in-school adolescents about methods and complications of unsafe abortions and their actual experiences.

Methods and Materials

Data from this cross-sectional cohort survey of senior students in public high schools in Ekiti State, Nigeria was obtained during a youth Camp meeting designed by Ekelua Leadership and Gender Development Initiative, in collaboration with Ekiti State's Ministries of Education, Youth & Development; and a Non-governmental Organisation tagged, Adolescent Friendly Research Initiative and Care (ADOLFRIC) during the summer vacation of August, 2019. The youth camp was a maiden edition of leadership-training, capacity-building and reproductive health-awareness camp for adolescents in Ekiti State, Southwest Nigeria. Ekiti State, in southwest Nigeria, has a human population of 2,398,957. It has a fertile vegetation and agriculture-friendly climate, and thus a centre for trading in yams, cassava, cocoa, grains and cotton. The indigenes are mainly of Yoruba extraction, and practise Christianity and Islam (Sule-Odu et al, 2002).

The State has one hundred and ninety-seven public high schools spread across its sixteen (16) local government areas, most of which are co-educational (mixing both males and females for educational activities). Due to the constraints of funds, the organizing body purposively chose a population of two hundred (200) students for the camp. In order to ensure even spread of participants across the state, six (6) schools were randomly selected from each of the sixteen local government areas, making a total of 96 invited schools. To ensure gender balance, each school presented one male and one female participant. With the invitation of one male and one female senior high student from each school, 192 students were expected at the camp. To account for possible attrition, 10% of the expected number was added, making a total of 212 students. Two hundred and one students however attended the youth camp. The study was approved by the Ekiti State Ministry of Education. The study's objectives were communicated to the students, and they were assured that the survey was strictly for research purposes. Having assured them of the anonymity and confidentiality of their responses, they were encouraged to opt out of the survey whenever they chose to, or to leave unanswered any questions they were uncomfortable with. Verbal consent was obtained from each participant. Inclusion criteria for the survey were being a senior high school student (that is, tenth to twelfth graders), recommendation by the school and with an official invite to attend the camp.

A self-administered structured questionnaire was used to obtain information from the participants. Sociodemographic information of the respondents, including their age, sex, class, religious inclination, and ethnic tribe were obtained. A section of the questionnaire assessed their knowledge about prevention and complications of unsafe abortion and their individual's experiences on it. Their knowledge about abortion was rated on a scale of 1 to 10. Scores 1-4 was rated as poor, 5-6 was rated as fair, while 7-10 was rated as good.

The data was analyzed using the Statistical Package for the Social Sciences (SPSS) versions 20 by IBM Corp. Results were presented as frequencies and percentages. Association between the knowledge of abortion and its complications and respondents' baseline variables were tested with Pearson's chi square. Level of significance was taken as $p < 0.05$.

Results

Out of 201 adolescents that attended the youth camp, 192 (95.5%) participants completed the questionnaires. The baseline characteristics are shown in Table 1. Only one respondent admitted to have ever gotten pregnant and pregnancy resulted in a live baby at term. None of the respondents admitted to having ever had abortion before the youth camp. However, 72 (37.5%) respondents revealed that their friends had a prior experience of unsafe abortion. 181(94.3%) of them agreed that abortion is a great problem in our society while 184 (95.8%) agreed that it can be prevented by family planning. Also, 169 (88%) of the respondents supported provision of youth family planning for adolescents in order to prevent unsafe abortion.

The respondents knew a lot about methods that were being used to procure unsafe abortion. Usage of local concoctions and herbs was the commonest while others like dilatation and curettage, use of injections, oral tablets, insertion of drugs into the vagina, lime, Andrew's liver salt trail behind it. (Table 2) Only 36(18.8%) participants have zero knowledge about methods of unsafe abortion (Table 2).

All the respondents know at least one complication of unsafe abortion. Majority knew organ damage, bleeding and death as complications of unsafe abortion(Table 2). Other complications reported were infection and psychological disturbances (Table2). However, some respondents reported myth like cervical cancer as a complication of abortion.

On the average, 71(37%), 81(42.2%) and 41(20.8%) had good, fair and poor knowledge respectively about abortion methods and complications after rating on a scale of 1 to 10. Table 3 showed the association between the rating of respondents' knowledge of abortion and baseline characteristics. There was a significant association between age at sexual debut and knowledge of abortion and its complications ($\chi^2=13.95$, $p=0.007$) (Table 3). Other demographic characteristics were not statistically significant (Table 3).

Discussion

None of the respondents reported to have undergone unsafe abortion during this survey while only one had been pregnant and delivered a live baby at term. Paradoxically, more than a third reported that their friends had gone through unsafe abortion during this survey. These "friends" would definitely include girlfriends whose experiences were reported by their boyfriends because the survey involved both sexes. Logically, some of these adolescents would have gone through unsafe abortion at one point or the other but they refused to disclose it during this survey as adolescents' risk behaviours and health are readily influenced by peers (Tomé et al, 2012). Peers largely determine preferences of adolescents in the way of dressing, speaking, sexual behaviours, health and criminal behaviours (Tomé et al, 2012). A previous work in Ekiti State documented significant association between peer group and unsafe abortion practices among female high school students (Osakinle et al, 2019). It can, therefore, be derived that about the same proportion of the respondents would have been involved in unsafe abortion. Unsafe abortion among in-school adolescents in Ekiti State, Nigeria is a reproductive health challenge beckoning for solutions in order to improve the sexual and reproductive health of these adolescents.

Why would the respondents give the information about their friends 'experiences on unsafe abortion and conceal their personal encounters? This is definitely a conundrum to unravel. The answer is largely imbedded in the fact that abortion is usually a clandestine procedure in Nigeria because of the restrictive abortion laws(Ogiamien, 2000; Padilla-Walker et al, 2009;Adelekan et al, 2017). In Nigeria, accurate data about abortion is largely difficult to

obtain from the community due to the clandestine nature of the practice (Okonofua et al, 2009). Usually, adolescents contend with medical, cultural and legal barriers towards making the right decision after an unwanted pregnancy (Ibrahim et al, 2012; Olofinbiyi et al, 2019). Anyone that survives the procedure of unsafe abortion among them is deemed to be “lucky” and is, therefore, expected to keep the secret religiously in order to avoid stigmatisation and public embarrassment (Adelekan et al, 2017). We tried to mitigate this “secret code” by reassuring the participants of confidentiality and anonymity before administration of the questionnaires. However, it’s quite amazing that verbal assurance was insufficient to break the “secret code”. There was a need for a more concrete assurance which may involve reviewing/remodification of our abortion laws, change in socio-cultural perception of unwanted pregnancy, change in school policies towards pregnant school girls and more importantly advocacy for adolescent family planning/emergency contraception. Our results will contribute to statistics on unsafe abortion in Nigeria to be used for advocacy towards change in policy and contribute to informed public debate on abortion law reforms. It also reiterates the assertion that the burden of unsafe abortion and its complications is underestimated in our society as the clandestine nature of the practice is deeply entrenched into the society.

The respondents knew a myriad of crude methods for procuring unsafe abortion as documented by previous researchers (Adler et al, 2003; Okonofua et al, 2009). They were also well-versed in the complications of unsafe abortion comparable to findings in previous studies (Okonofua et al, 2009; Paluku et al, 2013; Akpanekpo et al, 2017). Majority of participants had fair composite knowledge about abortion and its complications. The level of their knowledge did not differ in respect of sex, age, religion, tribe and grade in school. This could connote that their sources of information are similar. Adolescents’ sources of information on health concerns include parents, friends, media, health worker, health teachers, counsellors, and so on (Handelsman et al, 1987; Cadmus et al, 2011; Baheiraei et al, 2014). It probably means they have same source of information about abortion, presumably peers. Peers appear to be a common denominator to these participants as there is no structured curriculum for sexual and reproductive health teaching and counselling sessions in the public high schools in the State.

However, age at sexual debut was statistically associated with knowledge about abortions and its complications. Respondents that were yet to have sexual intercourse were significantly more likely to be well informed about abortion and its complications. This group of participants were better informed compared to others, which could have influenced their decision-making on sexual relations. Another study also documented association between sexual debut and reproductive health knowledge (Vardavas et al, 2009). Appropriate knowledge about abortion and its complication may be used to modify this adolescents’ risk behaviour –early sexual debut.

The strength of our study was involvement of male adolescents in this survey. Previous studies on unsafe abortion among adolescents included female adolescents only. A limitation of this study was that we did not explore the sources of the participants’ knowledge about abortion and its complication. It is also important to investigate their preferred source of information/education as this will help in drafting appropriate policies towards ensuring accurate knowledge about abortion and its complication. Besides, the ‘atmosphere of secrecy’ around unsafe abortion may be penetrated in subsequent studies by using in-depth anonymous interviews that will be designed to give the adolescents a greater sense of privacy and liberty to volunteer information.

In conclusion, knowledge of abortion and its complications among the study population was average. Unsafe abortion was still a clandestine practice which the adolescents were not eager to volunteer information about. Policies should be tailored towards improving the accurate knowledge of abortion and reducing its complications among adolescents.

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Conflict of interest

The authors have no conflict of interest to declare

Table 1: Baseline Characteristics of Participants

CHARACTERISTICS OF THE RESPONDENTS	FREQUENCY	PERCENTAGE (%)
Age (years)		
Less than 15	13	6.8
≥ 15	179	93.2
Religion		
Christianity	180	93.8
Islam	10	5.2
None	2	1
Sex		
Male	88	45.8
Female	104	54.5
Grade in High School		
10 th grade	2	1.1
11 th grade	1	0.5
12 th grade	189	98.4
Tribe		
Yoruba	173	90.1
Igbo	2	1
Others	17	8.8
Age at sexual debut(years)		
Yet to attain coitarche	161	83.9
< 15	15	7.8
≥ 15	16	8.3

Table 2: Knowledge of respondents about methods and complications of unsafe abortion

Abortion methods (multiple options allowed) [n=192] Frequency Percentage (%)		
Dilatation & Curettage	36	18.8
Insertion of drugs into the vagina	16	8.3
Local concoctions and herbs	98	51
None	36	18.8
Others	6	3.1
1. Alum	32	16.7
2. Andrew's liver salt	32	16.7
3. Injections and oral drugs	32	16.7
4. Lime	64	33.3
5. Pack of Acetaminophen/Exercise	32	16.7
Abortion complications (multiple options allowed)		
Bleeding	135	70.3
Infection	93	48.4
Organ damage	177	92.2
Psychological effects	59	30.7
Death	146	76
Cervical cancer	71	37
Rating of Knowledge of abortion and its complications		
Good	71	37
Fair	81	42.2
Poor	40	20.8

Table 3: Association between baseline variables and age at sexual debut with respondents' knowledge of abortion

Variables	Knowledge of abortion			χ^2	p-value
	Good	Fair	Poor		
	n (%)	n (%)	n (%)		
Age (years)					
< 15	8 (61.5)	5 (38.5)	0 (0)	5.23	0.073
≥ 15	63 (35.2)	76 (42.5)	40 (22.3)		
Sex					
Male	28 (31.8)	38 (43.2)	22 (25)	2.56	0.28
Female	43 (41.3)	43 (41.3)	18 (17.4)		
Class					
10 th Grade	0 (0)	1 (50)	1 (50)	2.983	0.56
11 th Grade	0 (0)	1 (50)	0 (0)		
12 th Grade	71 (37.6)	79 (41.8)	39 (20.6)		
Tribe					
Yoruba	65 (37.6)	73 (42.2)	35 (20.2)	4.98	0.29
Igbo	2 (100)	0 (0)	0 (0)		
Others	4 (23.5)	8 (47.1)	5 (29.4)		
Religion					
Christianity	67 (37.2)	77 (42.8)	36 (20)	2.37	0.67
Islam	3 (30)	4 (40)	3 (30)		
No religion	1 (50)	0 (0)	1 (50)		
Age at sexual debut (years)					
Yet to attain coitarche	64 (39.8)	71 (44.1)	26 (16.1)	13.95	0.007*
< 15	4(26.7)	5(33.3)	6(40)		
≥ 15	3 (18.8)	5 (31.3)	8 (50)		

*statistically significant

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