INDUCED ABORTION AMONG ADOLESCENTS AND YOUTHS IN PORT HARCOURT, NIGERIA: KNOWLEDGE, ATTITUDE, PRACTICE AND DETERMINANTS

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Abstract

In Nigeria, the incidence of unsafe induced abortion remains high, and this has been attributed to low contraceptive use and the restrictive abortion law in the country. The aim of this study was to examine the knowledge, attitude, practice and determinants of induced abortion among adolescents and youths in and out-of-school in Port Harcourt. This study draws from the knowledge theory. A combination of simple random and purposive sampling methods was utilized and a total sample of 752 in-school and out-of-school adolescents and youths were selected. Data were collected using self-administered questionnaires. Both descriptive and binary regression analyses were performed. Results revealed that, 68% of the adolescents and youths have heard about induced abortion and about 54.7% know places where abortion services can be obtained, (93.1%) of the respondents admitted that abortion is wrong and 77.3% were not supportive of legalization of abortion. Abortion practice was 13.6% and education, religion and family income status were key determinants of induced abortion. Programs to reduce the incidence of induced abortion should aim at the expansion of the legal conditions of the abortion law, inclusion of sex education in the curriculum of in-school adolescents and youths; and economic empowerment of those living in low-income households.

Keywords: Adolescents, attitudes, induced abortion, knowledge, legalization, Port Harcourt

Introduction

Induced abortion is a public health problem and demands serious attention. The problem is likely to worsen because of increased modernization and urbanization, which tend to sever young people from once previously held tradition of premarital chastity and family organizations and encourage sexual intercourse at an early age without effective practice of contraception. Globally, about 13% of induced abortions are related to low contraceptive usage (Ononokpono, Odimegwu & Usoro, 2020). In most developing countries including Nigeria, abortion is illegal and highly restricted, hence constraining access to safe induced abortion services for adolescents and all women (Guttmacher Institute, 2016). Although preventable, unsafe induced abortion is a leading cause of maternal mortality and morbidities (World Health Organization, 2021). An estimated 73 million induced abortions take place worldwide annually and 6 out of 10 (61%) of all unintended pregnancies, and 3 out of 10 (29%) of all pregnancies, end in induced abortion (Bearak, *et al.,* 2020). About 45% of induced abortions are unsafe, of which 97% occur in developing countries. Of all unsafe abortions, one third were performed under unsafe or unhygienic conditions by untrained and unskilled persons using dangerous and invasive procedures (WHO, 2021)

More than half of all unsafe abortions take place in developing countries, Asia and mostly in south and central Asia. Majority of induced abortions (about 3 out of 4) in Latin America and Africa are unsafe and in Africa, almost half of all abortions occur under the least safe circumstances. The World Health Organization (WHO) report indicated that in developed regions, an estimated 30 women die for every 100,000 unsafe abortions, compared to developing regions, with as high as 220 maternal deaths per 100,000 unsafe abortions (WHO, 2021)

The levels of unintended pregnancy and unsafe abortions remain high in Nigeria. Abortion law in the country is highly restrictive and induced abortion is illegal. Abortion is only permitted where it is intended to save a woman's life. Despite the restrictive nature of the abortion law, induced abortion is common and

often unsafe because it is mostly performed clandestinely by unskilled providers (Guttmacher Institute, 2016). In 2012, an estimated 1.25 million induced abortions occurred, and the number doubled when compared to an estimated 610,000 induced abortions representing an estimated rate of 25 abortions per 1000 women aged 15–44 in 1996 (Guttmacher Institute, 2015; Bell, Omoluabi, OlaOlorun, Shankar & Moreau, 2020). The increased number of abortions was attributed to both population growth and an increase in the rate of abortion. The estimated abortion rate was 33 per 1,000 women of reproductive age in 2012 (Guttmacher Institute, 2015). The rates of abortion vary across the geopolitical zones in Nigeria. Evidence showed that in 2012, induced abortion ranged from 27 per 1,000 women of reproductive age in the South west and North central zones; 31 per 1,000 in the North West and South East zones; to 41 and 44 per 1,000 in the North East and South South zones, respectively (Guttmacher Institute, 2015). Adolescents are the most vulnerable group and adolescent girls are at high risk of unintended pregnancy and consequent unsafe abortion.

Notably some studies have examined adolescents' knowledge of abortion. For instance a study among secondary school girls aged (10-19) in Lagos, Nigeria indicated that 83% had knowledge of abortion as a topic, while 10–14-year-olds exhibited a higher likelihood to know legal indications and methods of abortion than those aged% of adolescents were aware that abortion is safe under certain conditions, however a few of the students could name the indications for legal abortion 15–19 (Abiola, Oke, Balogun & Adegbesan-Omilabu, 2016, Kebede Bazie, Abate & Zeleke, 2016). Other studies found that knowledge of abortion methods was low among younger adolescents (12-14 years) in Brazil and less than half (46%) of adolescent girls aged 16-20 years in the Democratic Republic of Congo (DRC) knew of a place to obtain an abortion, while 71% knew of someone who had had an illegal abortion (Mitchell, Heumann, Araujo, Adesse, & Halpern 2014).

Espinoza, Samandari and Andersen (2020) in their study found that attitudes towards abortion among young adolescents were fairly conservative. For instance, in Brazil, about 56% of male and female adolescents supported legal induced abortion, while in Nigeria, the acceptance of abortion by younger adolescents (10–14-years-old) was lower than that of older adolescents (15– 19-years-old).

Other studies have examined the factors driving unsafe abortion. A study in Nigeria indicated that pregnancy termination was more likely among young women and adolescent girls in the Northern region than those in the southern region. Another study in Ethiopia found that marital status, sexual debut before age 15, contraceptive prevalence, having multiple sexual partner, urban residence and good knowledge of contraceptives were associated with induced abortion (Abebe *et al.,* 2022). Divorce and unwanted pregnancy were important factors associated with induced abortion in Burkina Faso (Ilboudo, Somda & Sundby, 2014). Living in communities with higher contraceptive prevalence was associated with increased odds of pregnancy termination (Onukwugh, Magadi , Sarki & Smith, 2020).

Most studies on abortion are hospital based and a few have focused on in-school adolescent girls, and little is known about out-of-school adolescents and youths. In addition, some of these hospital-based studies have yielded interesting results. However, they cannot be generalized to the wider community context or used as an accurate indicator of the magnitude of the incidence of abortions in Nigeria (Okagbue, 1990). There is often little or no information on several teenage girls and female youths outside school who carry out induced abortion themselves, those who utilize private and smaller clinics and even the services of non-professional abortion providers and the factors driving such practices. Despite the fact that the number of illegal or unsafe induced abortion and its associated maternal mortality and morbidity are on the increase, little has been done in terms of interventions to reduce the incidence or to reverse the situation. Major activities in this area so far, were those carried out by charitable and non-governmental organizations such as the Nigerian Medical Practitioners, under the auspices of Nigerian Medical Association, have continued to agitate for the liberalization of the abortion law, so as to reduce the number of unsafe abortions and the related complications and little is known about the attitude of adolescents towards the legalization of abortion in Nigeria. Besides, there is little or no reproductive health education targeted on the major group at high risk of abortion, and no clear policy exists on how to counsel adolescent girls on premarital pregnancy (Okonofua & Ilukoma, 1991). Against this backdrop, this study examines the knowledge of

induced abortion, attitudes towards legalization of abortion and determinants of unsafe induced abortion among adolescents and youths in Port Harcourt, southern Nigeria. This study can shed more light on some of the needs of adolescents and help in the design of interventions to address these needs. Specifically, the study attempts to answer the following research questions: What is the level of knowledge of unsafe induced abortion among adolescents and youths? What are their feelings towards the legalization of the abortion law in Nigeria? What factors determine unsafe induced abortion among female adolescents and youths?

Theoretically, this study draws from the knowledge theory which examines the relationship between thought and society. It emphasizes functional relationship between social structures and categories of thought and the ideas that operate within such structures. This simply means that an individual is affected by the way he sees things in the society, and this could be due to environmental factors, personality make-up and societal values (Wahab & Ajadi, 2009). Simply put, the theory is concerned with everything that has to do with "knowledge in the society". Going by the tenets of this theory it implies that youths' and adolescents' knowledge and attitudes about anything in the society particularly the issue of induced abortion and its determinants may to a large extent depend on their socio-economic background. There are things that may also determine the attitude of adolescents and youths towards unsafe induced abortion. To some, it could be avoidance of shame and embarrassment, parental disgrace, premarital pregnancy, or even religious beliefs.

Materials and Methods

This cross-sectional study used a quantitative approach to explore the knowledge, attitude towards practice, and determinants of induced abortion among the study population. This study was an excerpt from a previous research work sponsored by Council for Development Economic and Social Research in Africa (CODESRIA) and revised in 2022. The target population were adolescents and youths (males and females) age 13-24 years in Port Harcourt, South-south Nigeria. The sample size was determined using Cochran (1963) and Kothari and Garg (2004) formula for estimating sample size for infinite or unknown population. The equation to yield a representative sample for proportions is as follows: $n = Z^2Pq/e^2$. Where n is the sample size to be estimated, Z^2 is the critical value (Z- Score) and equals the desired confidence level, **e** is the desired level of precision, p is the estimated proportion of an attribute that is present in the population, and q is 1-p. We used a 95% confidence interval with Z-score of 1.96, conservative population proportion (p) 0.5 (50%) and the degree of accuracy desired (e) were set at 3.5%. This yielded a sample size of 784. After the administration of the questionnaires, about 32 questionnaires were excluded due to incomplete and inconsistent responses.

Probability sampling was the major sampling procedure adopted in this study. Greater Port Harcourt region comprise of eight local government areas (LGAs) namely: Port Harcourt, Okrika, Obio-Akpor, Ikwerre, Oyigbo, Ogu–Bolo, Etche and Eleme. Two LGAs Port Harcourt and Obio-Akpor were randomly selected through the lottery method. A list of schools in the two local government areas used as the sampling frame was obtained from the headquarters of each of the two local government areas. To draw a representative sample of the schools, a total of 6 schools were randomly selected from Obio/Akpor Local Government Area, while *5* schools were selected from Port Harcourt Local Government Area. On the whole, 5 girls' secondary schools, 2 boys' schools, 3 coeducational schools and 1 college of Arts and Science were chosen. Within each school, students in SS 1 and SS2 were randomly selected and interviewed. A sample of 50 in-school students were selected in each of the schools making a total of 550 students. Notably, SS3 students were not part of the study because they were no longer in school as at the time of this study.

For the selection of out-of-school adolescents and youths, 3 communities in Port Harcourt region were purposively selected and these include Bori-camp, Elekahia and Bundu waterfront (a slum in Port Harcourt LGA. Bori-camp and Elekahia were selected because of the cosmopolitan nature of the areas; and the selection of the Bundu waterfront was occasioned by criminal activities such as rape, drug peddling and prostitution that are common place in the area. The streets and households in Bori-Camp and Elekahia were randomly selected using the list of streets and PHC (Primary health Care) household identification numbers as sampling frame. A total of 122 households were selected and an eligible male or female respondent in

each household was interviewed. In the slum of Bundu waterfront, it was not possible to obtain a listing of households as at the time of this survey because many of the households lacked PHC (Primary health Care) household identification numbers, thus we selected the households and a total of 80 respondents using the snowball sampling technique which works as a referral program. A total of 202 out-of-school adolescents and youths were included in the sample, Overall, the analytical sample for this study was based on 752 in-school and out-of-school adolescents and youths. The analysis on the determinants of unsafe induced abortion was based on 102 adolescent girls and youths who had induced abortion before the survey. All married adolescents and youths were excluded from the study. A structured questionnaire was the major instrument for data collection. The questionnaire was designed to elicit information on the socio-demographic characteristics of the respondents' knowledge of abortion, attitudes toward induced abortion and abortion law in Nigeria, and reasons for induced abortion.

Variables and measurements

The outcome variable is unsafe induced abortion defined as abortion performed clandestinely by unskilled health providers (Guttmacher Institute, 2015). The incidence of induced abortion was measured by some key questions on whether female adolescent/youth had ever been pregnant or had been pregnant when she did not want to; and the response was categorized as Yes/No. If yes, the respondents were further asked if the pregnancy was terminated, and the categorized response was Yes/No. Knowledge of induced abortion was measured by the following questions: Have you heard about induced abortion? Do you know where people can obtain abortion services? The responses were categorized as Yes/No. Measurement of attitude towards abortion and legalization was based on the respondents' opinion about unsafe induced abortion and abortion legalization in Nigeria and reasons for support or disapproval. The independent variables include age, gender (male or female), religious background, educational level, occupation and family income status. Family income status was generated based on composite household durables such as Radio, Television, refrigerator and car. A score was assigned to each household asset and respondents were ranked according to the total score and categorized as low, medium, and high.

Analytical method

Univariate analysis was carried out to describe the socio-demographic characteristics of the respondents, their knowledge and attitudes towards induced abortion and abortion legalization. For bivariate analyses, cross tabulation was performed to determine the relationship between induced abortion and the independent variables. Cross-tabulations yielded the relationships in percentages. At the multivariate level, binary logistic regression was undertaken to further determine the significant relationship between the independent variables and the outcome variable. All the data analysis were done using SPSSPC software.

Ethical consideration

Before the conduct of the survey, permission was obtained from the designated principals in the various schools. At least one visit was made to each school before the study was conducted. The questionnaire was administered exclusively to those respondents who agreed to participate in the survey in each of the schools. For the out-of-school respondents, the purpose of the study was explained, and their consent to participate in the survey obtained.

Results

The descriptive results in Table 1 shows that more than half of the study population (56.4%) were within the age group 15-19 (mid-teens).

Table 1: Socio-Demographic Characteristics of Respondents (N=752)

Variables	Frequency	Percent (%)
Current Age		
<15	147	19.5
15-19	424	56.4
20-24	181	24.1
Gender		
Male	157	20.9
Female	595	79.1
Religion		
No religion	45	5.9
Catholic	262	34.8
Protestant	229	30.5
Islam	28	3.7
Traditional	61	8.1
Other	127	17.0
Level of Education		
No formal education	8	1.0
Primary Education	8	1.0
Secondary education	116	15.4
Tertiary education	70	9.3
Currently student	550	73.1
Occupation		
Student	550	73.1
Trader	78	10.4
Fashion designer	49	6.5
others	*75*	10.0
Family income status		
Low	260	34.6
Medium	405	53.8
High	87	11.6

Source: Excerpt from revised research work (2022)

Majority of the respondents (79.1%) were female adolescents and youths. Overall, Catholics and Protestants constituted about one third of the study sample. Some of the respondents have secondary and tertiary education while most of them (73.1%) were currently in school and expectedly students. However, a few of the respondents were traders and fashion designers.

More than half of the sample population (53.8%) and over one third (34.6%) were from medium and low socio-economic households respectively.

Knowledge of Abortion

Table 2 Respondents' Knowledge of abortion and places of abortion Services

Characteristics	Number =752	Percent (%)
Know about induced abortion?		
Yes	512	68.1
No	240	31.9
Know places of abortion services?		
Yes	411	54.7
No	341	45.3
Places of obtaining abortion services		
Government hospital	114	15.2
Self-medication	291	38.7
Quacks (non-professionals)	63	8.4
Pharmacists/Chemists	113	15.0
Traditional Healers	60	7.9
Nurses	61	8.1
Others	36	4.8
Don't know	14	1.8

Source: Excerpt from revised research work (2022)

Results on the knowledge of abortion and where abortion services can be obtained revealed that, over two third (68%) of the adolescents and youths have heard about induced abortion and about 54.7% know places where abortion services can be obtained. About 38.7% of the respondents indicated that abortion services

were obtained through self-medication. Other places of obtaining abortion services revealed by 15% of the respondents include: government hospital and Pharmacists/Chemists shops, while 8.1% mentioned non-professionals.

Attitudes towards abortion and Legalization

Results in Table 3 revealed that majority (93.1%) of the respondents admitted that it is wrong to have an abortion and the common reason for not supporting abortion practices is because it could lead to death (26.1%) and health issues (23.6). Similarly, most of the respondents (77.3%) did support the legalization of abortion. However only 22.7% approved it. More than half (57.9%) of the respondents who supported legalization of abortion based their support on other reasons such as pleasure, avoidance of illegitimate children and abandonment of new born babies.

Table 3: Distribution of Respondents who had negative attitudes towards Abortion and Legalization

Characteristics	Number (n =752)	Percent (%)
Is abortion right or wrong?		
Right	52	6.3
Wrong	700	93.1
Reasons for not supporting abortion (n=700)		
A sin against God	113	*16.* 1
Leads to death	183	26.1
Dangerous to health	165	23.6
It is murder	147	21.0
Other	92	13.1
Legalise abortion?		
Yes	171	22.7
No	581	77.3
Reasons for supporting legalization of abortion (n=171)		
Pre-marital pregnancy due to rape	26	15.2
To avoid stigma of unwanted pregnancy	3	1.7
For married women at risk	12	7.0
For birth control	5	2.9
In case of defective baby	4	2.3
Avoidance of family disgrace	22	12.9
Other (illegitimate children, baby abandonment etc)	99	57.9
Reasons for not supporting legalization of abortion **(n=581)**		
Abortion is an act of murder	168	28.9
Abortion will be rampant	19	3.3
Health risks	76	13.1
Abortion Causes infertility	37	6.4
It is a sin	78	13.4
Promiscuity	203	34.9

Source: Excerpt from revised research work (2022)

Other important reasons for approving abortion legalization are premarital pregnancy due to rape (15.2%) and the avoidance of family disgrace due to pre-marital pregnancy (12.9%). On the other hand, the main reasons for not supporting the legalization of abortion is because it is an act of murder (28.9%). About 13.1% did not support due to abortion related health risks and 13.4% disapproved on the basis that it is a sin except circumstances warrant it.

Bivariate analysis

Overall, result in Table 4 shows that 13.6% (102) of the respondents reported ever had abortion.

Table 4 Distribution of Female Respondents who had induced abortion by selected background characteristics

Variables	Had induced abortion (n=102, 13.6%)	Percent (%)
Current Age		
<15	9	8.8
15-19	47	46.1
20-24	46	45.1
Religion		
No religion	6	5.9
Catholic	53	51.9
Protestant	39	38.2
Muslim	0	0
Traditional/ others	4	3.9
Level of Education		
No Education/Primary	0	0
Secondary	28	27.5
Tertiary	23	22.5
Currently in school	51	50.0
Occupation:		
Student	51	50.0
Trader	23	22.5
Fashion designer /other	28	27.4
Family income Status		
Low	47	46.1
Medium	30	29.4
High	25	24.5

Source: Excerpt from revised research work (2022)

The practice of induced abortion was highest among female adolescents and youth age 15-19 years (46.1%), who were of catholic faith (51.9%), currently in school (50%) and from low socio-economic households (46.1%). Results also revealed that the proportion of abortion was higher among female youths aged (20-24), with secondary education, living in medium income households and are fashion designers than those less than 15 years old, affiliated to traditional or no religion, trading and residing in high socio-economic households. However, no Muslim reported having induced abortion.

Multivariate analysis

Results of the binary logistics regression in table 4 showed that all the factors apart from age were statistically significant with induced abortion.

Table 5. Logistic Regression for the odds ratio for factors associated with Induced Abortion

Variables	Coefficient	Odds Ratio (OR)
Current age		
<15	-.515	.974
15-19	.270	1.309
20-24	(RC)	1.00
Educational Level		
Secondary	-1.385	.250**
Tertiary	-.223	.800
In-school	(RC)	1.00
Religion		
Christians	-1.235	.291*
Others	(RC)	1.00
Family income Status		
Poor	-6.785	.001’
Medium	-.5332	.005***
Rich	(RC	1.00
Constant	10.038	
-2 log likelihood	71.327	
Chi-square	10.262	
Number of Cases	102	

Note: RC is the reference category
Significance level - ***P< .001 **p< .05 *P< .10

The odds of induced abortion was lower among Adolescents and youths who had some level of secondary education (OR=0.25, P<0.05) compared to the in-school adolescents. Religion was inversely associated with induced abortion. Christians (Catholics and protestants) were less likely to have induced abortion compared to adolescents and youths of other religious faith (OR = 0.29, P<0.10) The result also revealed a statistically significant association between family socioeconomic status and the likelihood of induced abortion with adolescents and youths living in medium socio-economic households less likely to have induced abortion (OR= 0.01, P<0.001) relative to those from low socio-economic households.

Discussion

This study has established that the level of knowledge of induced abortion among the study population is high, and this corroborates a study by Ojha & Silwal (2018). Most unsafe induced abortions were reportedly done through self-medication and providers in private hospitals and pharmacies/chemist shops. Despite the high knowledge of induced abortion, most of the adolescents and youths exhibited negative attitudes towards abortion and the legalization; and the most common reasons were that it is an act of murder and may lead to high level of promiscuity. This finding is in tandem with studies elsewhere (Abiola *et al.,* 2016; Buga 2002; Bain *et al.,* 2020; Sjostrom, Essen, Syden, Gemzell-Danielsson & Klingberg-Allvin,Sjostrom, Essen, 2014). The conservative attitudes could be attributed to the restrictive nature of abortion law in Nigeria which permits abortion exclusively under life threatening conditions and also religious beliefs. Meanwhile more than half of the adolescents and youths (57.9%) approved legalization of abortion in the case of rape, avoidance of illegitimate children and baby abandonment. In most parts of Nigeria, illegitimate children (children born outside marriage) are not socially acceptable and they are regarded as 'bastards'. The support for legalization of abortion may have been occasioned by the societal view and stigma associated with having a child outside marriage. While approval based on illegitimacy and abandonment of children indicated in this study is in contrast with findings of other studies in Ghana and Mozambique (Frederico *et al.,* 2020; Ghartey 2008), the support for legalization of abortion based on rape is consistent with studies in Jordan and United Kingdom (Saadeh, Alfaqih, Odat, & Allouh 2021; Gleeson . *et al.,* 2008).

The low proportion of induced abortion (13.6%) found in this study could be due to the sensitive nature of abortion. Considering the stigma associated with pre-marital sexual activity and pregnancy, induced abortion may have been under-reported. The findings that induced abortion was highest among female adolescents and youths age 15-19 years and those currently in school may be due to lack of experience and reproductive health education thus suggesting the need to include sex education as part of school education curriculum.

Among the characteristics assessed in this study, education, religion and family socio-economic status were significantly associated with induced abortion. This lends credence to a study in Northern Nigeria (Oyefabi, Nmadu, & Yusuf 2016). The odds of having had induced abortion was significantly lower for adolescents and youths with secondary education compared to in-school adolescents. The plausible explanation could be that they are more exposed to reproductive health issues and have access to contraceptives to prevent pregnancy. This finding is consistent with a study elsewhere (Megers, Ojengbede, Deckert & Fawole 2020) and reflects the assertion that abortion is schoolgirls' problem (Durojaiye (1996).

The study found that Christian girls (Catholics and protestants) were less likely to have had induced abortion. This result is in line with a study by Bose and Trent (2006) and may be attributed to Christian teachings and beliefs that abortion is a sin and act of murder. Another important finding is that adolescents and youths from low-income background are more likely to have had induced abortion relative to those from high income families. This result surprisingly is in contrast with a study in India which found that girls from rich households had high probability of pregnancy and induced abortion (Elul 2011). The plausible explanations for this finding perhaps could be lack of adequate means of livelihood. To make ends meet some of the indigent adolescents and youths may resort to illicit sex which consequently could lead to unwanted pregnancy and unsafe induced abortion given their inability to take care of an additional family member.

This study has some limitations that are noteworthy. The cross-sectional nature of this study does not allow for cause and effect relationship. Besides, the low incidence of induced abortion may be attributed to the sensitive nature of the study, hence the practice of induced abortion may have been under-reported. These limitations notwithstanding, the study makes some significant contributions in the debate on abortion in Nigeria.

Conclusion

Most of the adolescents and youths have good knowledge of induced abortion and more than three third had conservative attitude towards legalization of abortion which was possibly related to their religious belief, and proportion who had induced abortion was 13.6%. Most abortions were reportedly self-induced, while the private hospitals, pharmacies/chemist shops were other sources of abortion services. The likelihood of induced abortion was higher among in-school adolescents and youths and those from low-income families. Findings suggest the need to critically review the restrictive abortion law and expand the legal conditions for abortion in Nigeria. This will help to reduce self-induced abortions and the tendency to seek abortion services from non-professional providers. Furthermore, programmes aimed to reduce the incidence of induced abortion should specifically target the inclusion of sex education in the school curriculum to enhance reproductive health knowledge among in-school adolescents and youths. Efforts should be made to empower those living in low income households economically to enable them access quality abortion services when needed.

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