



Induced Abortion in Nigeria: Echoes of Undergraduates in a Tertiary Institution in South-East Nigeria

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Authors' contributions

This work was carried out in collaboration between all authors. Authors SAN and ECA designed the study. Authors UCA, KMCO and KGE wrote the protocol. Authors SAN, KMCO and KGE did literature searches and review. Author CLU collected the data from the respondents. Data analyses were performed by authors UCA and ECA. Author UCA wrote the first draft of the manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Background: Unsafe abortion constitutes a huge burden to women's health and reproductive lives especially in nations where it is illegal. It accounts for many pregnancy-related fatalities and debilitating complications. The knowledge, attitude and perceptions of youths within the reproductive age bracket to abortion are believed to predict most of these outcomes.

Aim: The study aims to determine the knowledge on abortion, the attitude towards it and the practice among students of Nnamdi Azikiwe University, Awka, South-Eastern Nigeria.

Study Design: Descriptive cross-sectional study.

Place and Duration of Study: Selected departments in all campuses of Nnamdi Azikiwe

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University, Awka, Anambra State of Nigeria between April and June, 2014.

Methods: Multi-staged sampling technique was applied in selecting 251 students from different departments at the Nnamdi Azikiwe University who were interviewed using pretested self-administered questionnaire. Data analysis was done using STATA statistical software version 13 and the level of significance was determined at a p-value of less than 0.05.

Results: Two hundred and fifty one students participated in the study, representing a response rate of 97.2%. A quarter was below 20years while 85.6% were single. All (100%) have heard of abortion of which 65.3% correctly defined it. A large proportion (98.8%) was aware of the complications of abortion with 43.2% naming more than two. Whilst only 75% knew that abortion is illegal in Nigeria, 13.2% admitted they can advise or seek abortion. Among the 33% (83) who had been pregnant before, 37.4% terminated the pregnancy, representing 12.4% of the entire population. Three-quarter disapproved of the legalisation of abortion of which 77.7% did not approve of it in any circumstance. Age was significantly associated with the knowledge of the complications of abortion as those aged below 20 were more aware than those above 30 (62 vs 7; $p=0.034$).

Conclusion: The knowledge of the complications of abortion is high but the practice of safe sex is low. Sexual reproductive health interventions are needed on campus to reduce the practice of risky sexual behaviours in settings where abortion is illegal.

Keywords: Abortion; complications; knowledge; attitude; practice.

1. INTRODUCTION

Unsafe abortion has continued to be a huge burden to women's health and reproductive lives especially in nations where it is illegal [1]. It is estimated that about 20 million unsafe abortions take place globally annually, resulting to about 70,000 deaths in women of child-bearing age. Globally, it accounts for 13% of pregnancy-related fatalities, and every year, 5 million women are treated for debilitating complications including secondary infertility [1-3]. The annual hospitalization rate for complications of abortion is 4-7 per 1000 admissions [4]. The recent (2008) WHO reports estimated the global incidence of unsafe abortion at 21.6 per million-population: 21.2 in the developing nations and 0.36 in the developed nations. The number of unsafe abortions varies greatly globally with Asia leading with 10.8 million cases yearly; Africa 6.2 million; Latin America and the Caribbean 4.2 million; and Europe 360,000. Similarly, the case fatality rate (deaths per 100,000) stands at 470 for Africa, 160 for Asia; 30 for Europe and Latin America/Caribbean respectively [5-7].

Though there has been a global decline in the rate of unsafe abortions, it still continues to be a source of great public health concern in most nations where its practice is illegal, and where it is illegal, it is unlikely to be safe [1,7-9]. It is estimated that 97% of unsafe abortions occur in developing countries where it is illegal [1,2]. Due

to this, abortion services are left in the hands of quacks, with resulting debilitating complications like sepsis, haemorrhage, uterine/intestinal perforation, secondary infertility and maternal deaths [10,11]. Sepsis has been a major short-term complication associated with high mortality [10,12,13]. These outcomes are worse amongst unmarried teenagers who, on trying to avoid the societal stigma attached to unwanted pregnancy, resort to unsafe practices and conceal any complications that may arise.

Emerging evidences have shown that race or ethnicity, religious affiliation, relationship status and sexual experience were associated with attitudes, beliefs and intentions regarding abortion practices [14,15]. There is also an increasing knowledge globally amongst youths on abortion, sexual and reproductive health, women's right and safe sex practices [11,16-18]. Also, recent local studies have shown that despite the increased awareness of the risks and complications of unsafe abortion amongst youths, the rate remains high [19-21].

Nigeria is one of the nations with restrictive abortion laws. Though officially a secular state, the ideals of its two main religions – Christianity and Islam- do not support their adherents to indulge in abortion. Termination of pregnancy is however only permitted when such poses a risk to the mother and this decision is only to be taken by specialists [22,23].

Recent studies have shown that youths are aware of abortion; yet they do not engage in safe sex practices [2,14,23]. So we aimed to assess the knowledge, attitude and practices of youths in a Nigerian tertiary institution to abortion and to ascertain the factors that influence these.

2. METHODS

2.1 Setting

Nnamdi Azikiwe University is a federal government tertiary institution ranked among the top 10 universities in Nigeria in research output. It is located in Awka, Anambra State, South-East Nigeria and offers a diverse range of courses of study like Arts, Natural sciences, Medicine, Engineering, Management Science, Social Science, Law, Education, African and European Languages. Awka, the capital of Anambra State, has an estimated population of 301,657 (2006 census) [24]. Its economy revolves primarily around the formal sector, since many state and federal institutions are located there. The inhabitants are mostly of Igbo ethnic nationality and are predominantly Christians.

2.2 Study Design

The study employed a cross-sectional descriptive study design, using self-administered questionnaires. Multi-stage sampling technique was used to select undergraduate students from 10 undergraduate faculties at the university's main campus in Awka.

2.3 Study Participants

The study participants comprised the total population of full time students in Nnamdi Azikiwe University Awka, totaling twenty four thousand seven hundred and six (24,706) during the 2013/2014 academic year. Medical students and other students in the College of health sciences were excluded from the study.

2.4 Study Instrument

The study instrument was a pre-tested semi-structured questionnaire which was developed by the researchers. This was self-administered to the students and obtained information on their demography, knowledge, attitude and practice of abortion.

2.5 Data Analysis

Data from the questionnaires were entered into the STATA statistical software version 13, [25]

which was also used in performing all the analysis. Frequency tables and cross-tabulations were computed. Chi-square analysis was used to test for associations between knowledge of the complications of unsafe abortion and sociodemographic factors and also to determine the factors influencing their knowledge, attitude and practice towards abortion. The level of statistical significance was based on a p-value level of less than 0.05.

2.6 Ethical Consideration

Ethical approval was granted by the Research and Ethics Committee of the Nnamdi Azikiwe University Teaching Hospital, Nnewi, Anambra State, Nigeria through the Community Medicine and Primary Healthcare department of the institution. Due to the sensitive nature of the subject, the purpose of the study was explained to the participating students and confidentiality was assured. Informed consent was obtained from every student before giving out the questionnaire. They were assured of the anonymity of their identity and the confidentiality of their responses. Participants were assured that participation in the study was voluntary and they were free to withdraw at any point in the study.

3. RESULTS

3.1 Participants' Characteristics

The socio-demographic characteristics of the participants are shown in Table 1. Two hundred and fifty one students participated in the study, representing a response rate of 97.2%. About a quarter (25.9%) is below 20 years of age while males were 54.2% and almost all (85.6%) were single. A good proportion (97.6%) belongs to the Christian faith.

3.2 Knowledge and Attitude towards Abortion

The respondents' knowledge of abortion is summarised in Table 2. All (100%) the students have heard of abortion of which 65.3% correctly defined it as the termination of pregnancy or removal of the foetus before birth. A large proportion (98.8%) of the students was aware of the complications of abortion with 43.2% naming more than two. The media contributed most as the source of information on abortion.

Independent of sex, age, religion or marital status, a good proportion of the undergraduates

(83.7%) believe that their awareness of the complications of abortion affected their perspectives on abortion. The perception of a greater number of the students (81.7%) was influenced by religion. More than half (56.6%) supported equal rights for male involvement in abortion decision-making. Three-quarters were aware that it was illegal to conduct abortion in Nigeria. Whilst 77.7% agreed that on no circumstance should it be carried out, 6.8% believed that it can be carried out only when the mother's life is at stake; 5.2% when the pregnancy is unwanted; and 3.6% in cases of rape only. Only 13.2% admitted that they can advise a friend to seek abortion when necessary. Among the 33% (83) who had been pregnant before, 37.4% terminated the pregnancy, representing 12.4% of the study population.

3.3 Test of Association

Table 3 shows the test of association between some demographic variables and the perception of abortion; knowledge of complications; and the practice of abortion. Age was statistically significantly associated with the knowledge of the complications of abortion with those aged below 20 more aware than those above 30 (62 vs 7; $p=0.034$). Conversely, no significant association was found between gender, residential area, religion or denomination; and knowledge of the complications of unsafe abortion. On perception of abortion as being right or not; age, gender, religion or place of residence had no significant effect. Receiving advice from a friend had significant effect on choice of termination of pregnancy among those who had previously carried out abortion ($\chi^2=13.39$, $p=0.001$).

4. DISCUSSION

A greater proportion of our student cohort was aged 20 to 24 years, single, males, Christians (mainly of the Catholic faith) and do not reside in the University's owned apartments. This demographic distribution is typical of a university population in the Eastern part of the country predominantly populated by Christians, and driven by a male-dominated ideology which values education of the male.

There was a high knowledge of abortion among the undergraduates with up to 65.3% properly defining it and 98.8% aware of its complications. In spite of this, none was able to give a standard definition of abortion. Understandably, most were

neither medical student nor medically inclined but were able to define it in simple lay terms. Our findings were very high compared to a similar study among undergraduates in a university in Karachi, comprising medical and non-medical students. In this cross-sectional study, only 46.77% and 27.78% medical and non-medical students correctly defined abortion [26].

Table 1. Baseline characteristics of the study participants

	Frequency (N=251)	Percentage (%)
Gender		
Female	115	45.8
Male	136	54.2
Age (years)		
Below 20	65	25.9
20-24	148	59.0
25-30	31	12.4
Above 30	7	2.8
Marital status		
Single	240	95.6
Married	11	4.4
Separated/Divorced	0	0
Widowed	0	0
Religion		
Christianity	245	97.6
Islam	1	0.4
African traditional Religion	5	2.0
Denomination (N=245)		
Catholic	112	45.7
Anglican	69	28.2
Pentecostals	62	25.3
Others	2	0.8
Residence of abode		
On-campus	27	10.8
Off-campus	224	89.2

Our study reflected the low acceptance of abortion in the Nigerian society, showing a prevalence of 12.4%. This was similar to the report of a multi-centre study in the Western and Northern parts of Nigeria where a prevalence of 11% was reported [27]. Another study among women seeking repeated induced abortion in Western Nigeria showed a prevalence of 23% [28]. This is partly explained by the fact that our study was in a relatively younger population which was less likely to have conducted abortion whilst this report includes non-students and also women in the larger society.

Table 2. Knowledge of study participants of abortion

	Frequency (N=251)	Percentage (%)
Knowledge (heard of abortion?)		
Yes	251	100.0
No	0	0
Best definition of abortion		
Termination of pregnancy	79	31.47
Removal of foetus before birth	85	33.86
Any other definition	58	23.11
Unable to define abortion	29	11.55
Sources of information		
Friends	12	4.78
Parents	7	2.79
Mass media	111	44.22
Seminars/Lectures	44	17.53
Multiple sources	77	30.68
Knowledge of complications		
Yes	248	98.80
No	3	1.20
Best known complications		
Bleeding	27	10.76
Future infertility	74	29.48
Perforation of the womb	26	10.36
Infection	1	0.40
Heart burn/Chest pain	13	5.18
Multiple choices (above)	110	43.82

Table 3. Association between participants' demographic factors and their knowledge of abortion

	Knowledge of complications of unsafe abortion		P-value
	Yes (%)	No (%)	
Gender			
Male	134 (54.0)	2 (66.7)	0.662
Female	114 (46.0)	1 (33.7)	
Age (years)			
Below 20	62 (25.0)	3 (100.0)	0.034
20-24	148 (59.7)	-	
25-30	31 (12.5)	-	
Above 30	7 (2.8)	-	
Marital status			
Married	11 (4.44)	0	0.709
Single	237 (95.6)	3 (100)	
Religion			
Christianity	242 (97.6)	3 (100)	0.964
Islam	1 (0.4)	0	
African traditional religion	5 (2.0)	0	
Denomination (N=245)			
Catholic	109 (44.0)	3 (100)	0.288
Anglican	69 (27.8)	0	
Pentecostals	62 (25.0)	0	
Others	8 (3.2)	0	
Residence of abode			
On-campus	27 (10.9)	0	0.545
Off-campus	221 (89.1)	3 (100)	

Though a good proportion (75%) was aware that induced abortion was illegal in Nigeria, more than three-quarters of this group believed that on no circumstance should it be conducted. Our reported level of awareness contrasts an earlier finding in our locality, which reported that 31% of abortion seekers were fully aware of the Nigerian abortion laws; [29] while our approval rate also contrasted sharply with those of a study in 5 tertiary institutions in Western Nigeria in which majority of the respondents believed that abortion should be legalised for the sake of the mother's health, in cases of pregnancies resulting from rape and abuse, gross congenital deformities and genetic abnormalities [20].

Finally, our study did show a significant association between age and knowledge of the complications of abortion with the younger age group (<20 years) more aware than the older age groups (>30 years). This is partly explained in our society by the high surge, appreciation and dependence on information technology for information, impact of peer pressure and the focus of sexual education on this age group compared to the older population.

Our study derives its strength from the exclusion of medical and health sciences students which helped to minimize confounding bias and could have driven our hypothesis away from the null. However, a major limitation was that abortion is a very sensitive issue in our environment, driven by cultural, religious and religious beliefs. As a result of this, people could be less willing to openly associate with this issue in a highly judgemental society. Another is the small sample of the respondents which may not be considered representative of undergraduates in Nigerian tertiary institutions.

5. CONCLUSION

Unsafe abortion still remains a huge burden and threat to women's reproductive lives in developing countries where it is illegal. We have shown that there is a high level of awareness of the complications of unsafe abortion amongst undergraduates but the practice of safe sex is low. This could easily translate to unwanted pregnancies, leading to illegal and unsafe abortion. Therefore, sexual reproductive health interventions like health education and counselling are needed on campus to reduce the practice of risky sexual behaviours in settings where abortion is illegal. Also, the application of knowledge of complications of induced abortion

by healthcare providers in clinical settings will help reduce maternal morbidity and mortality.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Sample Questionnaire

A questionnaire for a study on the knowledge and attitude of the practice of abortion among students of Nnamdi Azikiwe University, Awka

Dear respondents, our research team is working on the above named project. This questionnaire will be used for the purpose of this research only, please kindly give honest answer(s) to the questions below. All information supplied will be surely handled with utmost confidentiality.

Biographic data

1. Age at last birthday a. Below 20 b. 20-24 c. 25-29 d. Above 30
2. Sex a. Male b. Female
3. Level of study a. 100l b. 200l c. 300l d. 400l e. 500l
4. Religion a. Christian b. Muslim c. African Traditional Religion d. Others (specify)

5. Denomination a. Catholic b. Anglican c. Pentecostal d. Others (specify)_____
6. Place of residence a. On campus b. Off campus
7. Marital status a. Single b. Married

Knowledge of abortion

8. Have you ever heard of abortion? A. Yes b. No
9. What is your best knowledge of what abortion is?

10. What is your source of information on abortion? A. Friends b. Parents c. Media (tv, radio etc) d. Seminars and lectures e. Newspapers f. Others (specify) _____
11. Do you know that abortion can result in complications? A. Yes b. No
12. If yes, what complications of abortion do you know? A. Bleeding b. Infertility in the future c. Infection d. Heartburn e. Chest pain f. Perforation of the womb g. Drastic change in skin tone h. Not sure i. Others (specify) _____
13. Does unsafe abortion contribute to maternal mortality and morbidity? A. Yes b. No c. I don't know

Attitude towards abortion

14. Does your awareness of the complications of abortion affect your perspective about abortion? A. Yes b. No
15. If yes, how? A. Makes me to be more cautious b. It should be done professionals c. It is a dangerous thing that can lead to death d. I am strongly against it e. It is not a big deal
16. Should abortion be legalized in Nigeria? A. Yes b. No

17. If yes? Under what circumstance(s)? a. Rape b. Incest c. Unwanted pregnancy d. When the woman's health is at stake e. Low socioeconomic status f. Fetal abnormalities (eg deformed babies) g. Under all circumstances
18. If you disagree with abortion, are there exceptions for abortion to be made? A. Yes b. No
19. Does your religion affect your perception on abortion? A. Yes b. No
20. Do men have equal rights in deciding on abortion when compared with women? A. Yes b. No

Practice of abortion

21. Have you or your girlfriend/spouse ever been pregnant? A. Yes B. No
22. If yes, how did it end? A. Carried to term B. Abortion c. Miscarriage
23. If (b) to number 24, where? A. Hospital b. Chemist c. At home
24. Would you advise a friend/relative who got pregnant unintentionally to have an abortion?
A. Yes b. No

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