

## The knowledge and prevalence of induced abortion among female undergraduates at a tertiary institution in Port Harcourt, Southern Nigeria

Terhemem Kasso<sup>1\*</sup>, Elizabeth N. Obidinnu<sup>2</sup>

<sup>1</sup>Department of Obstetrics and Gynaecology, University of Port Harcourt and University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria

<sup>2</sup>Department of Obstetrics and Gynaecology, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria

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**\*Correspondence:**

Dr. Terhemem Kasso,

E-mail: [terhemem.kasso@uniport.edu.ng](mailto:terhemem.kasso@uniport.edu.ng)

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### ABSTRACT

**Background:** Abortion is a sensitive and contentious issue with religious, moral, cultural, and political dimensions. Induced abortion especially when unsafe can endanger a woman's reproductive health and lead to serious life-threatening complications and even death. This study was aimed at determining the knowledge and prevalence of induced abortion amongst female undergraduates at a tertiary institution in Port Harcourt, Nigeria.

**Methods:** This was a descriptive cross-sectional study carried out on 303 female undergraduate students at the University of Port Harcourt in November 2019. Data was collected using structured self-administered questionnaires and the information obtained was analysed with Statistical Package for Social Sciences (SPSS) version 23.0.

**Results:** Majority of the respondents (93.1%) had good knowledge of abortion and most of them (96.4%) knew abortion as termination of pregnancy while 84.8% knew it to be illegal. Also, 25.7% had previously been pregnant with 79.5% of such pregnancies ending in induced abortion. This study noted that the age, level of study, religion, residence and family status of the respondents significantly influenced the practice of induced abortion ( $p < 0.05$ ).

**Conclusions:** There was good knowledge of abortion and the complications of unsafe abortion among the respondents; however, many of them who had previously been pregnant had unsafe abortions. More awareness creation on the dangers of unsafe abortion and use of contraceptives especially the barrier methods among young people will significantly reduce the menace of unsafe abortion with its attendant complications.

**Keywords:** Undergraduates, Induced abortion, Complications

### INTRODUCTION

Induced abortion is the deliberate removal or expulsion of a fetus from the uterus before it attains the age of fetal viability (in our environment 28 weeks of gestation). When the pregnancy ends spontaneously, the word miscarriage is usually used in place of abortion. Abortion is a sensitive and contentious issue with religious, moral, cultural, and political dimensions.<sup>1</sup> Induced abortion is

illegal in Nigeria and carries a jail sentence of up to 14 years except when it is performed to save a woman's life.<sup>2</sup> Also, the *Rex V. Bourne* holding is applied in the southern Nigeria; it allows abortions for physical and mental health reasons and induced abortion is prohibited for incest, rape, fetal impairment, economic and social reasons.<sup>3</sup> Due to these restrictive laws and the socio-cultural and religious beliefs in the African societies that induced abortion is an act of murder, majority of

abortion are very often performed in secret by unskilled persons, quacks in very poor environments, thus making it unsafe. Unsafe abortion according to the world health organisation (WHO), is the termination of an unwanted pregnancy either by persons lacking the necessary skill or in an environment lacking minimal medical standard or both.<sup>4</sup> It is further classified as less safe when it is performed by a trained provider using an unsafe or outdated method (e.g. sharp curettage) or by an untrained person using a safe method (e.g. misoprostol).<sup>4</sup> Worldwide, it is estimated that 56 million induced abortions occurred each year from 2010-2014. The estimated global abortion rate is 35 per 1000 for married women and 26 per 1000 for unmarried women.<sup>5</sup> Women in developing regions have a higher likelihood of having an abortion than those in developed regions, 36 vs. 27 per 1000.<sup>5,6</sup> About 9.2 million pregnancies in Nigeria are unintended and 56% of these ended in an induced abortion, while 750,000 of these were unsafe with up to 40% of maternal deaths in Nigeria due to induced abortion.<sup>7-11</sup> The causes of induced abortion are varied but generally stem from an unwanted or unplanned pregnancy and probably due to the low prevalence of contraceptive use by women in the reproductive age group. Other reasons cited by women are to postpone or stop childbearing, socioeconomic concerns like disruption of education or employment, lack of support from the partner, poverty and unemployment. In addition, relationship problems with a partner or husband and a woman's perception that she is too young have also been cited. Induced abortion especially when unsafe, can endanger a woman's reproductive health and can lead to serious, life-threatening complications including, retained products of conception, bleeding, fever, sepsis, injury from instruments, pelvic infections and in the long-term ectopic pregnancy, secondary infertility and even death. Also, the cost of post abortal care in Nigeria is estimated at US\$103/patient and about 3000 women die annually in Nigeria from complications resulting from unsafe abortion.<sup>12,13</sup> The morbidities and mortalities from induced abortion are enormous and thus place a huge burden on the family, the society and women's reproductive health generally.

### *Aim and objectives*

This aim and objective of current study was to determine the knowledge and prevalence of induced abortion amongst undergraduate students at a tertiary institution in Port Harcourt, Rivers state, Nigeria.

## **METHODS**

It was a descriptive cross-sectional study, carried out at the University of Port Harcourt in the month of November, 2019. The study was conducted to assess the knowledge and prevalence of unsafe abortion among female students of the University of Port Harcourt. Three hundred and fifteen (315) female students were recruited into the study. The data was collected with structured

self-administered questionnaires by simple random sampling of the female students from 100 level to 600 level using balloting. The questionnaires consisted of three sections; Section A contained questions on sociodemographic characteristics such as age, marital status and religion. Section B had questions that assessed the knowledge of the respondents on abortion and section C had questions related to the practice of abortion.

The data were analyzed with SPSS version 23.0. Percentages and standard deviation were computed for baseline characteristics of the participants. The purpose of the study was explained to each respondent and their consent obtained. The names of the participants were not requested and no form of identification was requested on the questionnaire to maintain confidentiality.

## **RESULTS**

**Table 1: Socio-demographic characteristics (n=303).**

Variables	N	%
<b>Age (years)</b>		
<20	125	41.3
20-24	142	46.9
≥25	36	11.9
<b>Marital status</b>		
Single	242	79.9
Cohabiting	8	2.6
Married	53	17.5
<b>Level of study</b>		
100	66	21.8
200	76	25.1
300	69	22.8
400	52	17.2
500	35	11.6
600	5	1.7
<b>Ethnic group</b>		
Hausa	25	8.3
Igbo	116	38.3
Yoruba	68	22.4
Others	94	31.0
<b>Religion</b>		
Christianity	254	83.8
Islam	47	15.5
Others	2	0.7
<b>Residence</b>		
On-campus	167	55.1
Off-campus	136	44.9
<b>Family status</b>		
Monogamy	240	79.2
Polygamy	48	15.8
No response	15	5.0

Three hundred and fifteen (315) questionnaires were administered, however 303 were retrieved and analyzed, amounting to a response rate of 96.2%. The mean age range was 20-24 years. Most (25.1%) of the respondents were in the second year of their study, 79.9% were single,

83.8% were Christians, and 38.3% were of Igbo tribe. More than half (55.1%) of the respondents resided in the hostel and 79.2% were from a monogamous family setting. (Table 1).

**Table 2: Knowledge about abortion (n=303).**

Variables	N	%
<b>Abortion is termination of pregnancy</b>		
No	8	2.6
Yes	292	96.4
I don't know	3	1.0
<b>Abortion is illegal</b>		
No	40	13.2
Yes	257	84.8
I don't know	6	2.0
<b>Drugs can be used to procure abortion</b>		
No	21	6.9
Yes	279	92.1
I don't know	3	1.0
<b>Abortion can be performed through operation</b>		
No	41	13.5
Yes	254	83.8
I don't know	8	2.6
<b>Pregnancy less than and above 3 months can be aborted</b>		
No	29	9.6
Yes	263	86.8
I don't know	11	3.6
<b>Bleeding is a possible complication of abortion</b>		
No	18	5.9
Yes	280	92.4
I don't know	5	1.7
<b>Abortion can lead to infection</b>		
No	21	6.9
Yes	27	89.4
I don't know	11	3.6
<b>There is possibility of contracting HIV/AIDS while procuring abortion</b>		
No	83	27.4
Yes	210	69.3
I don't know	10	3.3
<b>Abortion can lead to infertility</b>		
No	9	3.0
Yes	288	95.0
I don't know	6	2.0
<b>Abortion can lead to death</b>		
No	6	2.0
Yes	293	96.7
I don't know	4	1.3
<b>Overall knowledge</b>		
Poor knowledge (0-6 score)	282	93.1
Good knowledge (7-10 score)	21	6.9

### Knowledge of abortion

Most (93.1%) of the respondents had good knowledge of abortion. Majority (96.4%) of them knew abortion as termination of pregnancy and 84.8% knew it to be illegal.

A few (6.9%) of the respondents were not aware that drugs could be used for abortion. Most of the respondents knew abortion can be complicated by bleeding (92.4%), infection (89.4%), infertility (95.0%) and even death (96.7%) as shown in (Table 2).

**Table 3: Association between socio-demographics and knowledge of abortion.**

Variables	Knowledge of abortion		$\chi^2$	P value
	Poor N (%)	Good N (%)		
<b>Age (years)</b>				
<20	13 (10.4)	112 (89.6)	4.177	0.124
20-24	7 (4.9)	135 (95.1)		
≥25	1 (2.8)	35 (97.2)		
<b>Marital status</b>				
Single	15 (6.2)	227 (93.8)	4.282	0.118
Cohabiting	2 (25.0)	6 (75.0)		
Married	4 (7.5)	49 (92.5)		
<b>Level of study</b>				
100	5 (7.6)	61 (92.4)	7.612	0.179
200	9 (11.8)	67 (88.2)		
300	1 (1.4)	68 (98.6)		
400	3 (5.8)	49 (94.2)		
500	2 (5.7)	33 (94.3)		
600	1 (20.0)	4 (80.0)		
<b>Ethnic group</b>				
Hausa	5 (20.0)	20 (80.0)	10.611	0.014
Igbo	10 (8.6)	106 (91.4)		
Yoruba	4 (5.9)	64 (94.1)		
Others	2 (2.1)	92 (97.9)		
<b>Religion</b>				
Christianity	13 (5.1)	241 (94.9)	11.665	0.003
Islam	7 (14.9)	40 (85.1)		
Others	1 (50.0)	1 (50.0)		
<b>Residence</b>				
On-campus	9 (5.4)	158 (94.6)	1.371	0.242
Off-campus	12 (8.8)	124 (91.2)		
<b>Family status</b>				
Monogamy	10 (4.2)	230 (95.8)	14.191	0.001
Polygamy	9 (18.8)	39 (81.2)		
No response	2 (13.2)	13 (86.7)		

There was a statistically significant association between ethnic group ( $p=0.014$ ), religion ( $p=0.003$ ) and the family status ( $p=0.001$ ) of the respondents and their knowledge of abortion (Table 3).

### Prevalence of abortion

Seventy-eight (25.7%) of the respondents had ever been pregnant with 79.5% of such pregnancies ending in an induced abortion. Many (53.6%) had their first abortion after 17 years of age. More than half (55.4%) had procured an abortion only once while 19.6% had more than three induced abortions. Often times, the procedure was done outside the hospital establishment (73.2%), by non-medical personnel (67.1%) and about two-thirds

(73.2%) of the respondents had medical termination. Half (50.0%) of the respondents who were previously pregnant and terminated the pregnancy said it was because they were not yet ready to bear the responsibility of having and raising a child, while 16.7% said it was because their parents disapproved of the pregnancy.

**Table 4: Respondents' practice of abortion.**

Variables	N	%
<b>Ever been pregnant (n=303)</b>		
No	220	72.6
Yes	78	25.7
No response	5	1.7
<b>Ever had abortion</b>		
Yes	241	79.5
No	56	18.5
No response	6	2.0
<b>Number of abortion(s) had (n=56)</b>		
One	31	55.4
Two	14	25.0
Three or more	11	19.6
<b>Reason for abortion</b>		
Not ready for responsibility	27	50.0
Parental disapproval	9	16.7
Health problems of mother	4	7.4
Father of baby not willing to accept	9	16.7
No excuse	5	9.3
<b>Age at first abortion (years)</b>		
15 or less	8	14.3
16	18	32.1
17 or more	30	53.6
<b>Where abortion was performed</b>		
Chemist/pharmacy shop	19	33.9
Home	15	26.8
Hospital	15	26.8
School	7	12.5
<b>Person who performed abortion</b>		
Doctor	18	32.1
Chemist	10	17.9
Friend	5	8.9
Self	21	37.5
Others	2	3.6
<b>What was used to procure abortion</b>		
Drugs	41	73.2
Surgical procedure	15	26.8
<b>Timing of abortion (weeks)</b>		
6-12	37	66.1
Over 12	19	33.9
<b>Experienced complication</b>		
No	26	46.4
Yes	30	53.6
<b>Type of complication experienced (n=30)</b>		
Bleeding	24	80.0
Infection	6	20.0

Only 26 (46.4%) of the respondents who procured abortion reported that they had no post abortal complications while 53.6% experienced complications with post abortal bleeding (80.0%) as the main complication (Table 4). There was a statistically significant association between the age and level of study

of the respondents,  $p=0.043$  and  $p=0.021$  respectively, and their practice of abortion as shown in (Table 5).

## DISCUSSION

The study assessed the knowledge and practice of abortion among female undergraduate students at the University of Port Harcourt. One hundred and forty-two (46.9%) of the respondents were in the age group 20-24 years. Majority of the respondents in the study who had ever had an abortion were unmarried. This result is similar to other studies done in Port Harcourt (Nigeria), Sri Lanka and Ethiopia which documented that majority of women who procure abortion were usually young and unmarried, also, these studies were done among secondary and university students.<sup>10,14,15</sup> This corroborates the fact that the adolescent and early adults are the major age group at risk of induced abortion. The world health organization has also revealed that the age group 15-24 years in African region accounted for more than 50% of the global abortion-related mortalities.<sup>3</sup> This may be because most times they have poor knowledge of the complications of induced abortion and limited access to contraception leading to unplanned and unwanted pregnancies. This calls for increased reproductive health awareness on sex education. However, this procedure is not exclusively an unmarried/young women procedure, a significant number of older/married women in the reproductive age group also sought abortion. This is consistent with a study done in Southwestern Nigeria.<sup>7</sup> This result is a reflection of poor contraceptive use and the desire for child-spacing and limited family size.

Majority of the respondents in this study were Christians and of Igbo tribe, this is not unexpected, since the study was conducted in the South- South region of Nigeria which is largely occupied by Christians and people of Igbo tribe. The study revealed that 93.1% of the respondents had 'good' knowledge of induced abortion and majority (96.4%) knew the meaning of abortion. This is similar to the findings from a study carried out in Lagos among secondary school students in which 97.6% knew the meaning of abortion.<sup>16</sup> The result is however higher than the result from a study done in Goma where only 61.3% of respondents knew the meaning of abortion.<sup>17</sup> This high level of awareness can be attributed to the increase use of social network/media, which is one of the main sources of information currently.

This study found that 84.8% of female undergraduates in this university knew that abortion is not legally allowed in Nigeria except to prevent death of a mother. Few of the respondents (15.2%) did not know it was illegal. This finding was similar to the study carried out in Goma where 82.6% knew abortion was illegal. The result from Lagos was lower (57.3%) than in this study.<sup>16,17</sup> The prevalence of induced abortion in this study was 79.5%. This prevalence was much higher than 51% reported by Onebunne et al in a study done among female

undergraduates in Ibadan.<sup>18</sup> The prevalence is also much higher than the 8.8% and 4.4% among ever pregnant women reported by Silva et al in Vila Mariana and the

larger Sao Paulo, Brazil. Both studies were, however community-based rather than a subset of female undergraduates in this study.<sup>19,20</sup>

**Table 5: Association between socio-demographics and practice of abortion.**

Variables	Experience of abortion		$\chi^2$	P value
	No (%)	Yes (%)		
<b>Age (years)</b>				
<20	104 (85.2)	18 (14.8)	6.275	0.043
20-24	113 (81.3)	26 (18.7)		
≥25	24 (66.7)	12 (33.3)		
<b>Marital status</b>				
Single	195 (82.3)	42 (17.7)	1.002	0.606
Cohabiting	6 (75.0)	2 (25.0)		
Married	40 (76.9)	12 (23.1)		
<b>Level of study</b>				
100	54 (83.1)	11 (16.9)	13.256	0.021
200	62 (84.9)	11 (15.1)		
300	52 (75.4)	17 (24.6)		
400	40 (78.4)	11 (21.6)		
500	32 (91.4)	3 (8.6)		
600	1 (25.0)	3 (75.0)		
<b>Ethnic group</b>				
Hausa	17 (73.9)	6 (26.1)	1.353	0.717
Igbo	95 (82.6)	20 (17.4)		
Yoruba	52 (78.8)	14 (21.2)		
Others	77 (82.8)	16 (17.2)		
<b>Religion</b>				
Christianity	209 (83.6)	41 (16.4)	9.886	0.003
Islam	32 (71.1)	13 (28.9)		
Others	0 (0.0)	2 (100.0)		
<b>Residence</b>				
On-campus	143 (87.7)	20 (12.3)	10.240	0.001
Off-campus	98 (73.1)	36 (26.9)		
<b>Family status</b>				
Monogamy	197 (83.5)	39 (16.5)	9.921	0.007
Polygamy	30 (65.2)	16 (34.5)		
No response	14 (93.3)	1 (6.7)		

Many (53.6%) of the respondents had their first abortion at ≥17 years, 14.3% had their first abortion at ≤15 years, 55.4% had had just one abortion each in the past, while 25% had two abortions in the past and 19.6% had had three or more. This is at variance from the result of the study done in Lagos where 1.5% and 0.5% of the respondents had one and two abortions respectively, in the past.<sup>16</sup> The report from the study done in Ibadan was similar to the result of this study, 60.7% of the respondents had procured abortion once.<sup>21</sup> Majority (82%) of these abortions were done by unqualified persons. This can be compared to a previous report in Nigeria, where 85% of the abortions among young people were done in private clinics. These clinics and patent medicine vendors from various reports have become the haven for illegal induced abortions. These are avenues through which a lot of quack ‘doctors’ make easy money in developing countries. They capitalize on the restrictive laws to exploit their clients and most of the time, their

procedures result in damaging complications, due to the poor procedure, performed by unqualified persons clandestinely in an unhygienic environment.<sup>21,22</sup> The commonest reasons given by the respondents in this study for terminating the unwanted pregnancy was unpreparedness for child bearing and parental disapproval (50% and 16.7% respectively). In many African societies, single motherhood is frowned upon and in the event that the father of the child is not willing to take up the responsibility for the child, the young female is more often faced with the problems of dealing with the pregnancy, and termination usually seems to be the easiest way out. In other instances, adolescents terminate pregnancies for various reasons including fear of expulsion from school, denial by spouse and failed contraception.<sup>22</sup>

Most (53.6%) of the respondents in the study who had ever had an abortion experienced complications and the



commonest complication identified was bleeding. This is similar to the report from the study done in Lagos in which 81.6% of the respondents experienced bleeding as the commonest complication.<sup>16</sup> However, some other studies identified sepsis as the commonest post abortal complication.<sup>22,23</sup> This may be due to incomplete abortion and trauma to genital tract or the uterine cavity during the procedure. Many (69.3%) of the respondents in this study knew that it was possible to contract human immunodeficiency virus infection/acquired immune deficiency syndrome (HIV/AIDS) during abortion, similar to studies done in Ibadan and Lagos where 79.1% and 54.8% respectively knew that unsafe abortion is associated with increased risk of contracting HIV/AIDS.<sup>16,21</sup> In this study, 95.0% of the respondents knew that abortion could lead to infertility, this is also similar to the study at Ibadan in which 90.4% of the respondents knew that infertility was a complication of abortion.<sup>21</sup> A large proportion (96.7%) of the respondents in this study knew that abortion could lead to death, and this is similar to the study carried out in Lagos where 96.6% knew death was a possible complication.

No statistical significance was found between the age of the respondents in this study and their knowledge. This is not in keeping with the studies in Lagos and Ibadan where the knowledge of the respondents on induced abortion increased with increasing age.<sup>16,21</sup> This study however, showed a statistical significance between the ethnic group, religion and the family status of the respondents and their knowledge of abortion. Respondents of the Igbo ethnic group and Christians had more knowledge of abortion. This is not surprising as they constituted the bulk of the population studied. This is also reflective of a previous study done in this region.<sup>9</sup> This study noted that the age, level of study, religion, residence and family status of the respondents significantly influenced the practice of induced abortion ( $p < 0.05$ ). The respondents who were older, tend to indulge more in abortion. This may have been due to interplay between experience and a sense of confidence from previous abortion with increasing age. A study done in Kaduna had emphasized the influence of religion on the practice of abortion.<sup>24</sup> Induced abortion significantly increased from 16.9% in 100 level to 24.6% in 300 level. This increase may be due to higher social and sexual activities as students get to know the campus and make more friends as their number of years on campus increases.

### **Limitations**

Limitation of this study is that the number of previous induced abortions could have been underestimated due to the fact that abortion is a very sensitive issue in our environment, driven by cultural and religious beliefs and women are usually reluctant to own up to having had induced abortion. This was minimized by assuring and ensuring high degree of confidentiality and anonymity in collection of the data. Also, the small sample of the

respondents may not be considered a representation of the female undergraduates in Nigerian tertiary institutions.

### **CONCLUSION**

The study yielded considerable insight into the knowledge and practice of induced abortion among female undergraduates in the University of Port Harcourt. Majority of the respondents had good knowledge of the illegality of abortion in Nigeria, unsafe abortion and its complications. However, many of the respondents who had ever been pregnant had unsafe abortions despite the knowledge of the possible complications.

### **Recommendations**

Health care workers should intensify awareness creation on the use of contraceptives especially the barrier methods among young people and the dangers of unsafe abortion. This will significantly reduce the menace of unsafe abortion with its attendant complications. Youth friendly, including contraception and post-abortion services should be made accessible to young people as this will reduce the high rate of unwanted pregnancies and unsafe abortions.

Health care providers should be trained in providing good quality abortion care services which will prevent many of the post-abortion complications.

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