

ASSESSMENT OF KNOWLEDGE AND PRACTICE OF ABORTION AMONG FEMALE UNDERGRADUATE STUDENTS OF LADOKE AKINTOLA UNIVERSITY OF TECHNOLOGY, OGBOMOSO

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ABSTRACT

Background: Unintended pregnancies increase at alarming rate over the years. Death and associated complications related to termination of unintended pregnancy is of public health concern in the developing world.

Objectives: To assess the knowledge and practice of abortion among female undergraduate students of Ladoke Akintola University of Technology, Ogbomoso.

Methods: An institutional based cross-sectional survey was conducted among 414 female undergraduate students of Ladoke Akintola University of Technology, Ogbomoso from March to July, 2014 using structured questionnaire. Multistage sampling technique with probabilities proportional to size was used. Data were analyzed by SPSS window version 16.0 software package.

Results: Majority of the respondents (98.1%) knew that abortion is the termination of pregnancy while 84.1% were aware that abortion can be complicated. Majority 199 (54.5%) were sexually active. Fifty four (27.1%) of the sexually active respondents had ever been pregnant with 50 (92.6%) of such ending in induced abortion. Most of the respondents 233(63.8%) had a good knowledge of complications of abortion and mean knowledge score was 5.13 ± 2.04 with a range of 0-9.

Conclusion: There was high awareness of abortion and its complications, despite this abortion rate was enormous. There is an urgent need to educate undergraduates about safe sex and with emphasis on available contraceptive methods and correct use. Youth-friendly health facilities to encourage utilization and exposure to health information in University environment should be established.

KEYWORDS: Knowledge, Practice of Abortion, Complications, Female Undergraduates, Nigeria

INTRODUCTION

High proportions of young people engage in unprotected sexual activities. This usually results into unintended and unwanted pregnancies. Unwanted pregnancies and unsafe abortion are still frequent and wide spread in the World (WHO 1994). Recent findings have indicated that out of about 210 million women who get pregnant each year, 80 million are unplanned for while 46 million out of them get aborted (WHO 1994; Monjok E et al and Guttmacher 1999). Studies conducted in Nigeria have indicated that the incidence is on the increase (Chinyere IC et al 2013; Adewole IF et al 2002 and Adedimeji AA 2005). Women in the western countries have access to modern contraceptive and opportunity to have legal induced abortions to reduce the number of unwanted pregnancies (Virtala A et al 2005). In most Africa countries, abortion laws are restrictive, making a large percentage of induced abortions unsafe (Okonofua FE 2006). Unwanted

pregnancies impact negatively on the reproductive health of young adults in developing countries. Most times, young adults with unwanted pregnancies resort to abortions – many of which are complicated by permanent disabilities and related fatal consequences (WHO 1994 and Shewamene Z et al 2012). As a consequence of unsafe abortions; 70 000 women die every year, and five million suffer permanent or temporary disability (Shewamene Z et al 2012).

According to Okonofua, over 99% of the 70 000 deaths that result from unsafe abortion worldwide, occur in the developing countries of sub-Saharan Africa, Central and Southeast Asia, and Latin America and the Caribbean (Okonofua FE 2006). Factors associated with increased maternal mortality from unsafe abortion in developing countries include inadequate delivery systems for contraception needed to prevent unwanted pregnancies, restrictive abortion laws, infiltrating negative cultural and religious attitudes towards induced abortion, and poor health infrastructures for the management of abortion complications (Shewamene Z et al 2012).

More than 610,000 induced abortions occur annually in Nigeria and over 60% are attributed to young persons (Shewamene Z et al 2012; Okonofua FE 2006). Naturally, young adults tend to engage in risk-taking behavior including unprotected sexual activities with the resultant unwanted pregnancies. Also, there is low level of contraceptive usage among adolescents in Nigeria (Henshaw SK et al. 1998). Studies from Western and Southern Nigeria have found rates of contraceptive use among sexually active adolescents to be 30% (Henshaw SK et al. 1998; Okonofua FE 1995 and Arowojolu AO et al 2000).

Unsafe abortion has been defined by the World Health Organization as a procedure for terminating unwanted pregnancy that is performed by someone lacking the necessary skills or in an environment lacking minimal medical standards or both (WHO 2004). This can cause serious health risk affecting the reproductive health and a host of life threatening complications (Ebuehi OM et al 2006; Odujirin OMT 1991 and Otoide VO et al. 2001). It also imposes a heavy burden on women and society by virtue of serious health consequences that ensue (Adedimeji AA 2005; Henshaw SK et al 1998 and Mitsunaga T et al. 2005). Unfortunately, the brunt of the consequences are bore by the females (Okonofua FE 1995). The increasing rate of abortion incidences in the third world countries has been viewed as one of the major reasons while an estimated incidence of 500,000 maternal deaths are recorded each year (Mitsunaga T et al 2005 and Abera H et al 2009). More than 40% of all deaths due to induced unsafe abortion occur in Africa; every year 34,000 African women die from this preventable cause (Shewamene Z et al 2012 and Michael A et al 2003).

Despite the widespread availability of highly effective methods of contraception, unintended pregnancy and induced abortion are still frequent and wide spread in the world (Shewamene Z et al 2012). Previous studies among young female elites concluded that the commonest reasons for unintended pregnancies were non-use and failure of contraception (Abera H et al 2009 and Grimes DA et al 2006). Information about people's awareness and practice of abortion would be of immense benefit for policy makers and relevant stakeholders in the health sector. Therefore, the aim of this study is to assess knowledge and practice of abortion among female undergraduate students of Ladoke Akintola University of Technology, Ogbomosho.

MATERIALS AND METHODOLOGY

The study was conducted in Ladoke Akintola University of Technology (LAUTECH) Ogbomosho in Southwest Nigeria. The institution is non - residential. The university has seven Faculties namely: Agricultural Sciences, Environmental Sciences, Engineering and Technology, Pure and Applied Sciences, Management Sciences, and a College of Health Sciences. The recent estimated population of students is 25,000 with female students accounting for 47.6% i.e. 11,900 (Lautech e-portal 2014). The study population was consented undergraduate female students of Ladoke Akintola

University of Technology Ogbomosho. The female students of faculty of Clinical Sciences were excluded from the study.

This was a descriptive cross-sectional study conducted between 1st March to 31st May, 2014. The minimum sample size for the study was calculated using the Leslie Fisher's formula (Araoye OA 2003) for calculating a population greater than 10,000 and 34% prevalence rate of induced abortion among female Nigeria Undergraduates (Guttmacher Institute 1999). An assumption of 80% response rate was made. To allow for non-response and inappropriately filled questionnaires or unreturned ones, the sample size was increased by 20%, this gave 414. A total of 414 questionnaires were administered. The sampling technique involved multistage probability method that comprised of Stage 1 (Selection of Faculties): Three faculties were selected using simple random sampling technique (ballot method) out of the five faculties present in LAUTECH, Ogbomosho. Stage 2 (Selection of Departments): From the three selected faculties two departments each were selected using simple random sampling technique (ballot method) to make a total of six departments. Stage 3 (Selection of Respondents): The desired sample size was selected using stratified random sampling with proportional allocation of respondents from the different study level in the selected department (i.e. 100 to 500 Level). Sixty nine (69) respondents were proportionally allocated to the different levels of each of the selected department. This was done by dividing the total number of female student in the level by the total number in the department and multiplying this by the desired number of the respondents in that department (i.e. 69) as shown below;

$$\frac{\text{No. of female student in that level} \times \text{Desired no. of female student in that Department (69)}}{\text{Total number of female students in the Department}}$$

The respondents were then selected using systematic sampling, (with the sampling fraction determined based on the number of students in the level and the number of respondents to be selected) according to the number given by the level or class representative.

The research instrument was a pre-tested structured self-administered questionnaire. The questionnaire was divided into segments: Section 1-Socio-demographic characteristics; Section 2-Knowledge about abortion and its complications; Section 3 - Sexual history and Section 4-Practice of abortion. The questionnaire was pre-tested among 20 pre-clinical female medical students as they have been exempted from the study. After the pre-test, the questionnaire was revised and ambiguous questions were rephrased or where necessary expunged.

Assessment Knowledge of complications of abortion- The questionnaire had internal consistency for knowledge questions with cronbach's alpha = 0.86. There were 9 questions testing the knowledge about abortion and its complications. The correct response to each question was given a score of one and wrong response zero; with this, knowledge scores were computed. Good knowledge was taken as score of five and above while poor knowledge was a score of less than five (Cadmus EO et al 2011).

Data was collected using quantitative method over a period of three months at various selected department. The questionnaires were administered by the 3 Research Assistants. The questionnaires were checked for errors after which the data were entered into the computer and then analyzed using the Statistics Package for Social Science (SPSS) Version 16.0. Data were presented using tables and graphs. Cross-tabulation of variables and other statistical analysis such as chi square were performed to assess statistical association of the variables. The level of significance was set at $p < 0.05$. Ethical approval was obtained from the Ethical Committee of Ladoke Akintola University of Technology Teaching Hospital, Ogbomosho. Verbal consent was obtained from each respondent prior to the administration of the questionnaire. Confidentiality of the respondents was assured as the name of the respondent was not written on the questionnaire nor their University identity number.

RESULTS

Out of the 414 questionnaires administered, only 365 were completed and suitable for analysis, giving a response rate of about 88%. Table 1 shows the socio-demographic distribution of the respondents. The mean age of the respondents was 21.5 ± 2.8 years with a range of 15-30 years. The majority, 339 (92.9%) were single, 198 (54.2%) were aged between 20-24 years and about 21.9% were in the third year (300level) of study and 63% are Christian.

Table 1: Socio-Demographic Characteristics of Respondent

VARIABLE	FREQUENCY (n=365)	Percentage (%)
<u>Age of respondent in years</u>		
Mean age = 22.6 ± 2.34		
15 - 19yrs	86	23.6
20 - 24yrs	198	54.2
25 - 29yrs	64	17.5
≥ 30 yrs	17	4.7
<u>Marital status</u>		
Single	339	92.9
Married	19	5.2
Cohabiting	7	1.9
<u>Level of study of respondent</u>		
100L(1 st year)	76	20.8
200L(2 nd year)	75	20.5
300L(3 rd year)	80	21.9
400L(4 th year)	70	19.2
500L(5 th year)	64	17.5
<u>Religion of respondent</u>		
Islam	135	37.0
Christianity	230	63.0
Others	0	0

The knowledge about abortion and its complications among female undergraduate students of Ladoko Akintola University of Technology showed that majority of the respondents 358(98.1%) knew that abortion is the termination of pregnancy while 307(84.1%) were aware that abortion can be complicated. Also, majority 310 (85%) were aware that family planning could prevent unnecessary abortion. Two hundred and seventy one (88.3%) respondents knew that inability to have children in future was a complication of abortion; 245 (79.8%) knew unsafe abortion may be associated with bleeding and 336 (79.1%). Two hundred and one (65.5%) knew death was a possible complication; 269 (87.6) knew it can cause damage to the womb and 237 (77.2%) knew that unsafe abortion may be associated with increased risk of contracting HIV/AIDS and 230 (74.9%) other infection of the reproductive tract. Majority of the respondents 266(86.6%) said that complications of abortion are not common.

Table 2 shows the sexual history and practice of abortion of the respondents. Majority 199 (54.5%) were sexually active. Fifty four (27.1%) of the sexually active respondents had ever been pregnant with 50 (92.6%) of such ending in induced abortion. Eighteen (36%) of them had procured abortion more than two times. Often times, the procedure was done in private establishments, 23 (46%).

Table 2: Sexual History and Practice of Abortion

VARIABLE	FREQUENCY (n=365)	Percentage (%)
Ever had sexual intercourse	199	54.5
Ever had unwanted pregnancy (n= 199)		
Yes	54	27.1
No	145	72.9
Ever had an abortion (n = 54)		
Yes	50	92.6
No	4	7.4
How many times did you abort (n = 50)		
Once	23	46.0
Twice	9	18.0
More than 2 times	18	36.0
Where was it procured (n = 50)		
Self- induced	9	18.0
Private Clinics	23	46.0
Patent Medicine Store	17	34.0
Government hospital	1	2.0

Most 114 (57.3%) of the respondents or their partner(s) normally use family planning method during intercourse while the rest 85 (42.7%) do not use it during intercourse.

In Table 3, most 43 (86%) of the respondents who had ever been pregnant and terminated the pregnancy said it was because they know that it will interfere with their schooling while 20 (40%) said it was because they are not ready enough to get married. Of the respondents, 13 (26%) procured abortion because of the fear of the family members knowing while 14(28%) had no plan to marry their partner. Similarly, 2(4%) terminated their pregnancies following incidences of rape or incest; 19(18%) did it because they do not know the actual father and 1(2%) procured it because as a means of making financial gains from her partner.

Table 3: Reason for Procuring Abortion

VARIABLE	FREQUENCY (n=50)*	Percentage (%)*
Interference with schooling	43	86.0
Not being ready enough to get married	20	40.0
Fear of family member knowing	13	26.0
Not planning to marry the partner	14	28.0
Following rape or incest	2	4.0
Not knowing the actual father	9	18.0
Means of making financial demand from the partner	1	2.0

*Multiple responses

Over half 27 (54%) of the respondents who procure abortion do use Dilatation and Curettage method, 14 (28%) resorted to the use of oral drugs to procure it and 6 (12%) used traditional methods. Majority 35(70%) procured the abortion within 3 months of missed period while 15(30%) procured it between 3 – 6 months of missed period.

Concerning, the knowledge about abortion and its complications. Majority 233(63.8%) of the respondents had good knowledge about abortion and its complications. However, 36.2% (132) of the respondents has poor knowledge about complication that may arise from abortion. The mean knowledge score of the respondents was 5.13 ± 2.04 (range 0-9).

Table 4 shows the relationship between knowledge about abortion and its complications by respondents' socio-demographic characteristics. Age in years, marital status and level of study of respondents is statistically significantly related to the knowledge about abortion and its complications ($p < 0.05$).

Table 4: Knowledge about Abortion and its Complications by Respondents' Socio-Demographic Characteristics

Variables	Knowledge about Abortion and its Complications				
	Good N(%)	Poor N(%)	Df	Pearson Chi-Square (χ^2)	P-value
<u>Age in years</u>					
15 - 19yrs	30(34.9%)	56(65.1%)	3	46.854	<0.001*
20 - 24yrs	142(71.7%)	56(28.3%)			
25 - 29yrs	44(68.8%)	20(31.2%)			
≥30yrs	17(100.0%)	0(0.0%)			
<u>Marital status</u>					
Single	207(61.1%)	132(38.9%)	2	15.859	<0.001*
Married	19(100.0%)	0(0.0%)			
Cohabiting	7(100.0%)	0(0.0%)			
<u>Level of study of respondent</u>					
100L	34(44.7%)	42(55.3%)	4	21.357	<0.001*
200L	51(68.0%)	24(32.0%)			
300L	53(66.2%)	27(33.8%)			
400L	43(61.4%)	27(38.6%)			
500L	52(81.2%)	12(18.8%)			

*Significant

Table 5 shows knowledge about abortion and its complications by respondents' reproductive health characteristics. Knowledge about abortion and its complications is statistically significant related to sexual activities while use of any family planning methods shows no statistical significance ($p > 0.05$). Although knowledge about complications of abortion was higher among those who had never been pregnant, 71% compared with those who had ever been pregnant 64.8% but these relationship is not statistically significant ($p > 0.05$).

Table 5: Knowledge about Abortion and its Complications by Respondents' Reproductive Health Characteristics

Variables	Knowledge about Abortion and its Complications				
	Good N (%)	Poor N (%)	Df	Pearson Chi-Square (χ^2)	P-value
<u>Ever had sexual intercourse (N=365)</u>					
Yes	138(69.3%)	61(30.7%)	1	5.757	0.016*
No	95(57.2%)	71(42.8%)			
<u>Use of any family planning methods (n=199)</u>					
Yes	80(70.8%)	33(29.2%)	1	0.259	0.611
No	58(67.4%)	28(32.6%)			
<u>Ever had abortion</u>					
Yes	31(62.0%)	19(38.0%)	1	2.345	0.126
No	4(100.0%)	0(0.0%)			

*Significant

Knowledge about complications of abortion was higher among those who had never had abortion, 100% compared with those who had ever had abortion 62% but these relationship is not statistically significant ($p > 0.05$)

DISCUSSIONS

Majority of the respondents aged between 20 – 24 years, which was similar to the age range found in several studies conducted on this issue (Monjok E et al 2010; Guttmacher Institute 1999 and Adewole IF et al 2002). Unwanted pregnancy poses a major challenge to reproductive health of youth in developing countries such as Nigeria. Most undergraduate students who had unintended pregnancies procure abortion. Many of which are performed in unsafe conditions and others carry their pregnancies to term, incurring the risk of morbidity and mortality higher than those for

adult women (Mitsunaga T et al 2005). This study has shown that there was high level of awareness among undergraduate students of Ladoké Akintola University of Technology, Ogbomosó, that abortion is termination of pregnancy which could result into several reproductive health consequences. Majority of them are aware that the use of contraceptives could reduce the incidence of unwanted and unintended pregnancies. This is in agreement with the recent published reports in other parts of the country (WHO 2000 and Aziken ME et al 2003).

Among the sexually active respondents, 92.6% of those who ever had unwanted pregnancies had had abortion. The figure obtained in this study is similar to those obtained in previous studies conducted at the University of Ibadan (Cadmus EO et al 2011)²⁴ of 93.3% and higher than 85.4% that was obtained in the University of Benin in Nigeria (Aziken ME et al 2003). Majority of the respondents (98.1%) knew that abortion is the termination of pregnancy while about 84.1% were aware that abortion can be complicated. Majority of those who had abortions were the youngest. This is in agreement with the existing literature that suggested that majority of women who usually procure abortion are young and unmarried (Adedimeji AA et al 2005; Virtala A et al 2005; Henshaw SK et al 1998; Arowojolu AO et al 2000 and Mitsunaga T 2005).

The high prevalence of abortion in this study was largely premised on the fact that the pregnancy was unintended, unwanted and that it will interfere with their education. This finding is in line with previous studies (Cadmus EO et al 2011 and Arowojolu AO et al 2002). The high prevalence of abortion could be partly due to unwelcome attitude of the African societies to single mother, denial of paternal responsibility by their partner(s) and their poor usage of modern contraceptive measures despite their knowledge about it. However, reverse is the case where modern contraceptives and high level of awareness are available to undergraduates especially in the developed countries of the world (Virtala A et al 2005).

The Dilatation and Curettage and the oral medications were most preferred method used by the respondents who procured it as against the traditional method. This could be because of their level of education and the fear of infections especially from the use of herbs and concoctions. None of the respondents who had ever had abortion suffered any life threatening complication or admitted into ward for post abortion complications. Nevertheless, reports from same region about complication of abortion have identified hemorrhage and sepsis as common sequel of abortion (Okokofua FE 2006). Possible reason for this may be their careful selection of method of abortion chosen.

CONCLUSIONS AND RECOMMENDATIONS

Most of the respondents had a good knowledge about abortion and its complications. However, almost all the respondents who had ever been pregnant terminated the pregnancy despite the knowledge of the possible complications. Sexually active respondents should be encouraged to adopt methods of prevention of unwanted pregnancy especially family planning methods. Provision of access to modern contraception and liberalization of abortion could reduce incidences of unwanted pregnancies and complications resulting from abortions. There is an urgent need to educate undergraduates about safer sex and with emphasis on available methods and correct timing of use. Youth-friendly health facilities to encourage utilization and exposure to health information in Universities environments should be established.

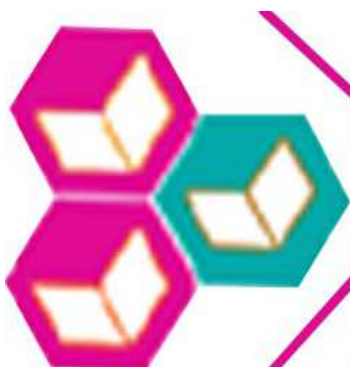
LIMITATION OF THE STUDY

There is a potential for responder bias and respondents may have filled in responses they perceive to be desirable rather than their actual perceptions. Other parts of the country have different socio-cultural and religious characteristics which may affect findings. Findings may also not apply to student's females outside the school setting. Further studies can triangulate quantitative and qualitative methods.

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