

# Unwanted pregnancy and induced abortion among female undergraduates in University of Ibadan, Nigeria

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## ABSTRACT

**Objectives:** To assess the prevalence of unwanted pregnancies and induced abortion among female undergraduates.

**Methodology:** A cross-sectional survey was conducted among female undergraduates in University of Ibadan, Nigeria. The survey used a structured, self-administered questionnaire. Data analysis was conducted using Statistical Package for the Social Sciences version 20 with Chi-square and *t*-tests. Statistical significance was set at  $P < 0.05$ .

**Findings:** The mean age of the participants was 20.3 ( $\pm 2.7$ ) years and 80% were single at the time of the study. The prevalence of induced abortion was 51%. The overall prevalence of unwanted pregnancy was 17%, and 92.7% of students who had ever been pregnant had considered the pregnancy unwanted. Only 7.3% reported willingness to be pregnant while engaged and 58.3% were unwilling to keep pregnancy if engagement ends. Unwanted pregnancy was less among those ever married ( $\chi^2 = 49.96$ ,  $P < 0.001$ ), and more of the induced abortions were found in the unmarried group albeit not statistically significant ( $\chi^2 = 0.21$ ,  $P = 0.640$ ). Unwanted pregnancy occurred more during the engaged period than any other time, which was statistically significant ( $\chi^2 = 20.24$ ,  $P < 0.001$ ), although no significant difference in induced abortion was found.

**Conclusion:** The prevalence of unwanted pregnancy and induced abortion is high especially among university undergraduates. As it appears to happen more often while they are engaged, unprotected sex during the engagement period needs to be targeted.

**Key words:** Engaged or married status; induced abortion; unwanted pregnancy.

## Introduction

An unintended pregnancy is a pregnancy that is mistimed, unplanned, or unwanted at the time of conception. It mainly results from the lack of, inconsistent, or incorrect use of effective contraceptive methods.<sup>[1]</sup> It may also result from rape in which emergency contraception is not used. According to the Center for Disease Control and Prevention in the United States, women who are more likely to experience unintended births include unmarried women, black women, and women with low educational status and income.<sup>[1]</sup> A pregnancy can change from wanted to unwanted (and vice versa) during the course of a pregnancy through the reactions of others or

external economic pressure.<sup>[2]</sup> In some instances, a change of circumstances (e.g. the lack of support from a partner) might lead to the pregnancy becoming unwanted, and thus an initially intended/wanted pregnancy may eventually be terminated. In other cases, an unexpected pregnancy may be welcomed due to prevailing circumstances.

In the United States and in some Eastern European countries for which data are available, about one-half to three-fifths

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of all pregnancies are unintended, and a large proportion of these are resolved through abortion.<sup>[3]</sup> In many developing countries, the proportion of recent births that are unintended exceeds 40%; even in regions where most couples still want large families, 10%–20% of births are unplanned.<sup>[3–6]</sup> A community-based study in southwestern Nigeria found a 26.6% prevalence of unwanted pregnancy.<sup>[7]</sup>

An estimated one in five pregnancies in Nigeria is unplanned.<sup>[5]</sup> Unplanned pregnancies are mainly unwanted, and in Nigeria, several reasons have been reported which include the following: about 29.7% of all Nigerian women age 15–49 years need effective contraception, of which only 55.3% are using any contraception and about 16% are using traditional methods such as cycle beads which have high failure rates.<sup>[8]</sup> Only about 33% of women who have ended an unwanted pregnancy by abortion were using modern contraceptive methods, while 66% were not using any method when they conceived. Of nonusers, 19% believed they would not get pregnant and 6% had family members or spouses who objected to contraceptive use.<sup>[5]</sup>

About half of women age 15–49 years in Nigeria who have had an unwanted pregnancy have attempted to have an abortion and 10% succeeded.<sup>[5,7]</sup> It has been noted that the fear of social reprisal from an out-of-wedlock pregnancy or child birth contributes a great deal to making a pregnancy unwanted and possibly aborted.<sup>[9]</sup> However, even among married women, Adhikari *et al.* reported that 41% of their current pregnancies were unintended.<sup>[10]</sup>

It has been found that youths are more susceptible to unwanted pregnancies, and this may be explained, in part, by the fact that premarital casual sexual activity is common and reported to be on the rise in all parts of the world.<sup>[11]</sup> Abortion surveillance in the United States through the period of 2001–2010 showed that women in their 20s accounted for the majority of abortions, whereas women in their 30s and older accounted for a much smaller percentage of abortions. In 2010, women aged 20–24 and 25–29 years accounted for 32.9% and 24.5% of all abortions, respectively.<sup>[12]</sup> Also, young adulthood, which ranges between 18 and 25 years, is laden with emotional, educational, and social changes which generally coincide with the first years away from strict parental supervision for university students. University youths hold an important position as role models to other youths which include adolescents,<sup>[13]</sup> and thus, their plight even as it pertains to unwanted pregnancies could create an insight into the wider youth community.

Being single, engaged, or married may affect a woman's decision regarding her pregnancy and what to do to her

unwanted pregnancy. Women may be more likely to keep a pregnancy when they are married or assured of the support of her partner than when they are single. Also, availability of contraception services may be less available to unmarried women due to the cultural norms against premarital sexual activity. A study in Nepal found that some government hospitals and some pharmacies distribute condoms only to married individuals.<sup>[14]</sup> Also, despite the legalization of abortion in Nepal, a study found out that most induced abortions were performed on married, rather than single women.

This study aimed to assess the prevalence of unwanted pregnancies and induced abortion among undergraduates and possible associations.

## Materials and Methods

### Study design

The study was a cross-sectional survey conducted among female undergraduates residing in the accommodation halls on the university campus between January and March 2015.

### The study area

The study was carried out in the University of Ibadan, southwest Nigeria. The university is mainly residential.

### Sample size calculation

The sample size was based on the prevalence of unwanted pregnancy from a community-based survey as 26.6%.<sup>[7]</sup> This gives a sample size of approximately 300. An attrition rate of 10% was accounted for which gives a sample size of 330.

### Sampling technique

A multistage (two-stage) sampling technique was used. The first stage involved a systematic random sampling. A sample frame consisting of the number of rooms occupied by female undergraduates resident in the halls was constructed. The sampling interval was calculated to be three, and using the simple ballot technique, the first room number was selected to be 2 and subsequent rooms based on the interval. The population of each hall was considered when choosing the number of rooms to be included in the study (proportionate selection). The second stage involved simple random sampling where one occupant (selected by ballot) in each of the chosen rooms was interviewed.

### Study instrument

Structured, self-administered questionnaire was used to collect data from the female undergraduates after an informed consent had been acquired from each participant.

## Data management and analysis

The open-ended questions in the survey questionnaire were coded; data were entered into the computer using Statistical Package for the Social Sciences (SPSS) version 20.0 and analyzed. Descriptive analysis was presented using frequency tables and chart. The *F*-test was used to test the relationship between quantitative and qualitative variables, while Chi-square test was used to assess the significance of associations between categorical groups with a *P* value of <0.05 considered statistically significant.

## Results

The sociodemographic characteristics of the students are presented in Table 1. Among the 300 participants in the study, most participants (184; 61.3%) were young adults between ages 19 and 24 years. The mean age of the study participants was  $20.3 \pm 2.7$  years. A majority of the respondents [241 (80.3%)] were single at the time of the study, although 33 (11.0%) were engaged, and 23 (7.7%) were married. Thirty-seven percent (111) of them had been engaged at least once and 33 (11%) had been married at least once [Table 1].

Among all students, 55 (18.3%) indicated ever being pregnant. Out of these 55, prevalence of unwanted pregnancy was 92.7%. Twenty-six (51.0%) had terminated their pregnancies. The prevalence of unwanted pregnancy and induced abortion among all the 300 female students was 17% and 8.7%, respectively. Twenty-five (22.5%) of the 111 respondents who had ever been engaged indicated having had an unwanted pregnancy while engaged. Out of these 25, more than half (15, 60%) terminated the pregnancy, while 10 (40%) continued with the pregnancy. While 22 (7.3%) of the students reported that they would be willing to be pregnant while engaged, 175 (58.3%) indicated no willingness to keep pregnancy if the relationship ends [Table 2].

The association between the current marital status of the undergraduates and unwanted pregnancies/induced abortion is shown in Table 3. Among the 55 students who had ever been pregnant, most of the singles [24 (98.0%)] had unwanted pregnancy; while all those who were engaged [9 (100%)] had an unwanted pregnancy. However, there was no significant association found between unwanted pregnancies and induced abortion and the marital status ( $P = 0.78$  and  $0.15$ , respectively) [Table 3].

Table 4 shows that among those with unwanted pregnancy, 39.2% had ever been married and this was statistically significant ( $\chi^2 = 49.96$ ,  $P < 0.001$ ). A higher percentage of married women kept their pregnancies rather than to induce abortion for the unwanted pregnancy, but this was not statistically significant ( $\chi^2 = 0.21$ ,  $P = 0.640$ ). Unwanted pregnancy was more

**Table 1: Sociodemographic characteristics**

Variables	Frequency (n=300)	Percentage
Age (years)		
≤18	89	29.7
19-21	114	38.0
22-24	70	23.3
>24	27	9.0
Mean±SD	20.3±2.7	
Marital status		
Single	241	80.3
Engaged	33	11.0
Married	23	7.7
Separated	3	1.0
Religion		
Christian	228	76.0
Muslim	64	21.3
Traditionalist	3	1.0
Others	5	1.7

SD: standard deviation

**Table 2: Unwanted pregnancy history**

Variables	Frequency (n=300)	Percentage
Ever pregnant		
Yes	55	18.3
No	245	81.7
Unwanted pregnancy by you and your partner (n=55)		
Yes	51	92.7
No	4	7.3
Outcome of unwanted pregnancy (n=51)		
Continued with pregnancy	25	49.0
Induced abortion	26	51.0
Unwanted pregnancy while engaged (n=111)*		
Yes	25	22.5
No	86	77.5
Outcome of unwanted pregnancy while engaged		
Continued pregnancy	10	40.0
Induced abortion	15	60.0
Willingness to be pregnant while engaged		
Yes	22	7.3
No	278	92.7
Willingness to keep pregnancy if engagement ends		
Yes	125	41.7
No	175	58.3

\*Total includes unwanted pregnancy during past relationship

common during engagement ( $\chi^2 = 20.24$ ,  $P < 0.0001$ ). Fifty-one percent of these unwanted pregnancies ended in an induced abortion although not statistically significant [Table 4].

## Discussion

In this study, the prevalence of unwanted pregnancy and induced abortion among female undergraduates in University of Ibadan was 17% and 8.7%, respectively. This prevalence is much lower than 26.6% unwanted pregnancy

**Table 3: Association between the marital status of the undergraduates and unwanted pregnancies and induced abortion**

Variable	Previously pregnant (n=55)		P	Induced abortion (n=51)		P
	Unwanted (n=51)	Wanted (n=4)		Yes (n=25)	No (n=26)	
Marital status						
Single (%)	24 (92.3)	2 (7.7)		13 (54.2)	11 (45.8)	
Engaged (%)	9 (100)	0 (0)		2 (22.2)	7 (77.8)	
Currently married (%)	17 (89.5)	2 (10.5)	0.78	11 (64.7)	6 (35.3)	0.15
Separated (%)	1 (100)	0 (0)		0 (0)	1 (100)	

**Table 4: Association between married status of the undergraduates and unwanted pregnancies and induced abortion**

Variable	Ever married		P	Previously/currently engaged		P
	Yes	No		Yes	No	
Unwanted pregnancy						
No (%)	13 (5.2)	236 (94.8)	<0.001	78 (31.3)	171 (68.7)	<0.001
Yes (%)	20 (39.2)	31 (60.8)		33 (64.7)	18 (35.3)	
Outcome of unwanted pregnancy (n=51)						
Continued pregnancy (%)	9 (36)	16 (64)	0.640	16 (64)	9 (36)	0.920
Induced abortion (%)	11 (42.3)	15 (57.7)		17 (65.3)	9 (34.7)	

and 21.7% abortion reported by Oye-Adeniran *et al.* in a 2004 community-based survey on unwanted pregnancy in southwestern Nigeria.<sup>[13]</sup> The induced abortion value was, however, higher than 5.6% reported by Olukoya in a community-based survey.<sup>[15]</sup> The values from this study become overwhelmingly high when only those who have ever been pregnant are considered, resulting in a prevalence of 92.7% and 51%. This induced abortion prevalence of 51% is way higher than the 8.8% and 4.4% among ever pregnant women reported by Silva *et al.* in Vila Mariana and the larger São Paulo Brazil.<sup>[16,17]</sup> Both studies were, however, community-based rather the subset of female undergraduates studied here.

Turchik earlier in 2009 reported that some unmarried female students worried that if they did not engage in sexual intercourse, it would affect their relationships and they would not have good communication with their partners. With these misgivings, these women are often unable to negotiate safe sex for themselves. Unsafe sex increases incidence of unintended pregnancy and abortion, as well as the risk of sexually transmitted infections.<sup>[18]</sup> In this study, unwanted pregnancy was also explored among those who indicated to have ever been engaged; it had occurred in almost a quarter of them. Among this cohort, more than half terminated the pregnancy. Abortion is a matter with such stigma in this environment that many people directly or indirectly involved more often than not avoid discussion on or outrightly deny involvement except when confidentiality is provided. Therefore, an abortion prevalence of 51% among those who had ever been engaged in this study was unexpectedly high. A previous report had acknowledged the probability of gross underreporting of the incidence of abortion in that study.<sup>[7]</sup> The possible reason for the high rate of abortion in this study could be because the students were unprepared for the challenges of

pregnancy and motherhood. Considering an assumed higher degree of social enlightenment, the students are less likely to deny these abortions. Studies have reported that in many instances, adolescents terminate pregnancies for various reasons including fear of expulsion from school, denial by partner, and failed contraception. Increased contraceptive use will reduce the prevalence of unwanted pregnancy and thus induced abortion. This study, however, did not assess these possible reasons.

Furthermore, 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 may seem to be the easiest way out of the predicament.<sup>[19]</sup> The worldwide legal status of abortion ranges from complete prohibition to elective procedures at the request of the pregnant women. Olaitan opined that in the wake of a growing awareness of population and environmental concerns, socioeconomic development, and recognition of the right of women to control their own fertility and aided by technological innovational, abortion has gradually emerged from an aura of social ambivalence.<sup>[20]</sup> The disadvantage that young women suffer raises cause for concern, because they turn to abortion (usually unsafe) before completing their family size potentially causing future infertility in the process and also because adolescents are particularly affected.<sup>[17]</sup>

Married women were significantly less likely to have had an unwanted pregnancy in this study, and only about two-fifths of those with unwanted pregnancy had experienced it while married. Married women have been reported to also experience unwanted pregnancy, as they constituted 100%

of abortion seekers in the study by Olukoya (although 99% of the participants were married).<sup>[15]</sup> Oye-Adeniran *et al.* also found that the problem of unwanted pregnancy and abortion affect women of all ages and marital status.<sup>[7]</sup> More than half of the married students with unwanted pregnancy in the present study resorted to induced abortion. This could be a desire to limit family size to enable them focus and further their education. It has, however, been reported that some women use abortion as a means of child spacing instead of contraception.<sup>[21]</sup> A little over half of those with unwanted pregnancy either while married or engaged resorted to induced abortion. This is at variance with submissions from Silva and Viera where they found that being single was an important characteristic associated with having had an induced abortion, and when faced with a pregnancy, single women were four times more likely to have an abortion than married women.<sup>[17]</sup> A similar study also noted a higher incidence of abortion among the unmarried group.<sup>[16]</sup> This study, however, specifically considered the engaged period rather than just being single.

One limitation of this study is that the study did not explore contraceptive utilization among the respondents. In addition, the study was cross-sectional, which necessarily limits causal conclusions. It is also important to note that rate of unwanted pregnancy and induced abortion reported in this study could also be underreported. This is because women and girls (undergraduates not excluded) do not like to divulge such information as they are aware that society frowns and condemns such acts.

## Conclusion

The prevalence of unwanted pregnancy and induced abortion was high among female undergraduates. This was irrespective of marital status. Although there were some cases of unwanted pregnancy among the married students, induced abortion was more during the engaged period. The task for policymakers, nongovernmental organizations, community and opinion leaders, health professional bodies, and family planning service providers is to develop more effective strategies to curb this problem. Reproductive health education schemes need to focus more on undergraduate females. More robust studies especially comparative would also be helpful.

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## Conflicts of interest

There are no conflicts of interest.

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