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Factors influencing abortion decision making among undergraduate females at the University of Calabar, south-south Nigeria

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Abstract---Abortion procurement among adolescents is a major health challenge in developing nations. Not only because of the stringent abortion legislation in most of these nations but also because of the dangers of unsafe abortions. To examine the factors influencing abortion decisions making among young adults in Calabar. A stratified sampling method was used to select three hundred and ninety (390) female students from 8 faculties of the university of Calabar, Nigeria. Data was collected using a semi-structured questionnaire. Data were analysed using IBM SPSS-23TM. Frequency tables and Chi-square test was used for analysis. The level of significance was kept at a p-value < 0.05. 91 (23.70%) indicated that their friends constituted a pressurising factor in abortion, and 12 (3.13%) were influenced by their family members. 20 (14.71%) indicated that they were threatened, and 80 (58.82%) reported that their educational aspirations were a factor that led to an abortion. 76 (55.88%) indicated that the anticipated financial burden and the unintended responsibility of child-rearing was a factor. The poor relationship with the potential father was a factor for 48 (35.29%). Statistical analysis showed that there was a significant effect of pressure and influencers on the decision to carry out an abortion ($\chi^2 = 219.74$, $p < 0.000$). Adolescent reproductive health policies need to be practically implemented to save unborn children from the carnage that abortions subject them to. The health of the adolescents or

female adult, be it emotional, psychological, spiritual, as well as education, economy, ignorance or otherwise contribute to decision making in carrying out an abortion.

Keywords---influence, knowledge of abortion, female undergraduates, Nigeria.

Introduction

In developing countries, especially in sub-Saharan Africa (SSA), the procurement of abortion among young female adults or adolescents is still a major health challenge. [1] Not only on account of the restrictive abortion laws in most of these countries but also due to the attendant complications associated with unsafe abortions. [2] Abortion has been adjudged to be among one of the commonest gynaecological experiences that most women will have in their lifetime. [3] It is estimated that more than half of all unintended pregnancies that occur in the country end up being aborted, resulting in more than 1.25 million abortions annually. This includes all terminations of pregnancies below the age of fetal viability. [4] However, in the context of this study, the definition of abortion adopted here entails the wilful termination of a pregnancy within the first trimester (first thirteen weeks of gestation). [3]

A large proportion of women who seek and carry out an abortion are young adults, and this has occurred despite the widespread availability of contraception, promoted through various governmental and non-governmental agencies, coupled with the training of healthcare providers, making the services available at minimal or no extra cost to the users. [1,4] The main problem seems to be that most of these pregnancies result from unplanned and or unprotected sexual intercourse, resulting in unplanned and unwanted pregnancies. [4]. The role of healthcare providers, the clinical characteristics and the social demographic profile of patients in the sub region have been studied, [5] however, few have addressed the need to fully understand the socio-cultural factors, information pathway, and family and peer pressure involved in abortion seeking decision of young adults and the psychological effects of such decisions in the south-south region of Nigeria. It is with this background in mind that this study was undertaken to assess the factors influencing abortion decisions among young adults in the University of Calabar, a tertiary institution, to form part of the knowledge base for future interventions in reducing the recourse to abortion in our environment with highly restrictive abortion laws, unlike in other parts of the world where abortion laws are liberal and an adolescent can walk freely into any fertility clinic and procure an abortion without any constraints.

Method

This study was carried out at the University of Calabar, Calabar. The institution was established in 1975 and accredited by the National Universities Commission, Nigeria. The institution has ten faculties and three institutes. The University is a coeducational institution with a high enrolment range of approximately forty to forty-five thousand students. The target population for this study was young

female adults or adolescent students who had engaged in at least one abortion in the past or recently. Inclusion criteria were young female adults who were properly admitted and registered in any department of the University of Calabar and who may have had an abortion either before admission into the University or currently as a student. Those excluded were adults or adolescents who met the inclusion criteria but refused to give consent to participate. The sample size (N) for this study was calculated by the researchers using the formula based on the estimated proportion of a finite population, with the assumption that 50% of the target population had a basic knowledge of the subject of interest [6]:

$$n = \frac{\frac{Z^2 \times P(1 - P)}{d^2}}{1 + \left\{ \frac{Z^2 \times P(1 - P)}{d^2 N} \right\}}$$

Where d = degree of precision = (0.05)

Z = standard normal deviation (1.96) corresponding to 95% confidence interval

n = desired sample size

N = Finite target population ($\geq 10,000$)

P = proportion of students at the University of Calabar that know the meaning of abortion and related complications in the target population (0.5)

Therefore, substituting the values for the calculations:

$$n = \{[(1.96)^2 \times 0.5(1-0.5)] / (0.05)^2\} / \{1 + [(1.96)^2 \times 0.5(1-0.5)] / [(0.05)^2 \times 10,000]\}$$

$$n = \{[3.84 \times 0.25] / 0.0025\} / \{1 + [3.84 \times 0.25] / [0.0025 \times 10,000]\}$$

$$n = \{0.96/0.0025\} / \{1 + [0.96 / 25]\}$$

$$n = 384 / \{1 + 0.04\} = 384 / 1.04 = 369.96 \approx 370$$

Also, given a non-response rate of 5% (i.e., $r = 0.05$).

Adjusted minimum sample size was calculated as $n = N / 1 - r = 370 / 1 - 0.1 = 97 / 0.95$

Therefore, $n = 389.5 \approx 390$.

This meant that a total of 390 participants were needed for the study. A stratified sampling method was used to select three hundred and ninety (390) students. The first stage involved zoning the study area according to the number of faculties, with eight faculties being chosen. The second stage involved selecting the departments, with forty-eight (48) departments being chosen. In each department, students were randomly selected, and the questionnaire was administered to them accordingly. All consenting participants were each reassured of anonymity, full confidentiality and that the information collected was for research purposes only.

Data was collected using a semi-structured questionnaire with open-ended questions that were developed for this study and that had been pre-tested with about 15 students in the department with modifications made to conform to local sensitivity before the commencement of the study. Ethical clearance was obtained from the Head of the Department of Obstetrics and Gynaecology, with a cover letter attached to each questionnaire. The data collected was on socio-

demographic and educational characteristics of respondents, the previous history of abortion, information on factors influencing their decision on abortion and outcomes of those decisions. The data were collected by five (5) trained 'female' final year medical students as research assistants to minimise bias and assure sensitivity and validity of the information obtained for the study. The data were collected over a period of five weeks, with over 430 questionnaires distributed and retrieved. Data were analysed with descriptive and inferential statistics using IBM SPSS-23™. Frequency tables were generated for relevant variables. Proportions were compared using the χ^2 test, and the confidence interval was placed at 95%, with the level of significance kept at a p-value < 0.05.

Results

Four hundred and thirty questionnaires were administered to and retrieved from the participants. Of these, forty-six (46) were excluded for incomplete data and incorrect filling of the forms, leaving three hundred and eighty-four (384) of the final data available for the final analysis.

Table 1
Socio-demographic Characteristics of Participants

Variable		Frequency	Percentage (%)
Age	15-17	80	20.8
	18-20	112	29.2
	21-23	104	27.1
	24 and above	88	22.9
		384	100
Religion	Christian	360	93.8
	Islam	16	4.2
	Traditional	8	2.0
		384	100
Faculty	Allied Medical Sciences	72	18.75
	Arts	58	15.10
	Basic Medical Sciences	36	9.38
	Biological Sciences	44	11.46
	Dentistry	32	8.33
	Education	52	13.54
	Law	28	7.29
	Social Sciences	62	16.15
		384	100
Year of study	Year 1	120	31.25
	Year 2	80	20.83
	Year 3	68	17.71
	Year 4	92	23.96
	Year 5	24	6.25
		384	100
Marital Status	Single	340	88.55
	Married	0	0
	Separated	0	0

	Divorced	0	0
	Cohabitation	24	6.25
	Engaged	20	5.20
		384	100
	Past Abortion		
	Yes	128	33.33
	No	256	66.67
		384	100

Table 2
Types of Decision Influencers

Decision Influencers	Variables	Frequency	Percentage
	Family Members	12	3.13
	Friends/ Peers	91	23.70
	Personal Decision	33	8.59
	Spiritual guidance	0	0
	None	248	64.58
		384	100

Details of decision Influencers	Frequency	Percentage
Variable	Yes (%)	No (%)
History of pressure from others	103 (75.73)	33 (24.27)
Family Pressure	12 (8.82)	124 (91.18)
Friends/ Peer pressure	28 (20.59)	108 (79.41)
Persuaded	61 (44.85)	75 (55.15)
Threatened / Forced	20 (14.71)	116 (85.29)
The anticipated financial burden	73 (53.68)	63 (46.32)
Responsibility of child-rearing	76 (55.88)	60 (44.12)
Educational aspirations/ dreams	80 (58.82)	56 (41.18)
Poor relationship with potential father	48 (35.29)	88 (64.71)

Table 3
Relationship between Influencing Factors and Decision to abort

Variable	Incidence of Abortion				Pearson's square	Chi- square	Df	pValue
	Aborted	Didn't Abort	not	Total				
Influenced	95	8		103	$\chi^2 = 219.74$	1	<0.000	
uninfluenced	33	248		281				
	128	256		384				

Table 4
Post Abortion Experience or Complications

Variables	Frequency	Percentage
	Yes (%)	No (%)
Bleeding/ Blood loss	112 (87.5)	16 (12.5)

Physical Injuries	64 (50)	64 (50)
Sleep disorders	120 (93.8)	8 (6.2)
Anger	96 (75)	32 (25)
Guilt / Shame	88 (68.8)	40 (31.2)
Depression	104 (81.3)	24 (18.7)
Confident about decision	40 (31.2)	88 (68.8)
Relief with decision	72 (56.3)	56 (43.7)
Regrets	88 (68.8)	40 (31.2)
Stigmatisation	40 (31.2)	88 (68.8)
Infection / Sepsis	40 (31.2)	88 (68.8)

Discussion

Most of the respondents in this study were between the ages of 18 and 20 years (112, 29.2%), with respondents (104, 27.1%) between the ages of 21-23 years, (88, 22.9%) were aged 24 and above, while (80, 20.8%) were between the ages of 15-17 years. Majority of the respondents were Christians (360, 93.8%), with 16 (4.2%) Muslims and 8 (2%) Traditional worshippers. Christianity is the dominant religion in the Southern part of Nigeria, hence the majority of respondents. Most of the respondents were from the faculty of allied medical sciences (72, 18.75%), with 62 (16.15%) from the faculty of Social Sciences, 58 (15.10%) were from the faculty of Arts, and 52 (13.54%) respondents were from the faculty of Education, 44 (11.46%) were from the faculty of Biological Sciences, 36 (9.38%) were from Basic Medical Sciences, with 32 (8.33%) from the faculty of dentistry, and 28 (7.29%) from the faculty of Law. Most respondents were in their first year of study (120, 31.25%), with 92 (23.96%) in their fourth year, 80 (20.83%) were in their second year of study, while 68 (17.71%) were in their third year, and 24 (6.25%) were in the fifth year of study. Most of the respondents were single (344, 89.55%), with 24 (6.25%) cohabiting with their partners and 20 (5.2%) engaged with their partners. No respondents were married, separated, or divorced. Out of the 384 respondents interviewed, 128 (33.33%) had carried out an abortion within the past 12 months before the data collection; details are shown in table 1.

As depicted in table 2, most of the respondents (91, 23.70%) indicated that they had been influenced by their friends and peers in their decision to carry out an abortion, while 33 (8.59%) took the decision on their own and 12 (3.13%) were influenced by their family members. Another majority (124, 91.18%) said that family members were not part of their influence to engage in abortion, with 12 (8.82%) answering in the affirmative. Also, 28 (20.59%) said their friends constituted a pressurising factor to carry out an abortion, with 108 (79.41%) disagreeing. Many of the respondents (116, 85.29%) did not report getting direct threats to commit an abortion; however, a minority (20, 14.71%) indicated this occurred to them. Some of the respondents (61, 44.85%) indicated that they were encouraged and persuaded by others to seek an abortion, as against 75 (55.15%) who felt otherwise. Most of the respondents (80, 58.82%) reported that their educational aspirations were factors that led them to the decision to abort, with a few (56, 41.18%) indicating that this was not a factor. Another majority (76, 55.88%) indicated that an aversion to the unintended responsibility of child-rearing was a factor that led to the decision, with 60 (44.12%) disagreeing.

Furthermore, 73 (53.68%) reported that the anticipated financial burden of raising a child was a decisive factor in seeking an abortion, 63 (46.32%) disagreed with this item of the questionnaire. The nature of the relationship with the potential father was also a factor in deciding to go for an abortion for 48 (35.29%) respondents, while 88 (64.71%) did not consider it to be important.

Table 3 shows the Chi-square test conducted to assess the effect of influencers on the decision to carry out an abortion; the result shows that there was a significant effect of pressure and influencers on the decision to carry out an abortion ($\chi^2 = 219.74$, $p < 0.000$). As seen in Table 4, the majority (112, 87.5%) of respondents who had an abortion experienced bleeding/ blood loss, while 16 (12.5%) did not. 64 (50%) had physical injuries, with the same number (64, 50%) not having any injuries. 120 (93.8%) reported having some sleep disorders, with 8 (6.2%) not having any. Also, many respondents (96, 75%) were angry with themselves because of the abortion done, while 32 (25%) did not. 88 (68.8%) felt guilty and ashamed, while 40 (31.2%) did not have the feelings, and 104 (81.3%) felt depressed because of the abortion, with 24 (18.7%) not feeling depressed. Also, 40 (31.2%) felt confident about the decision taken, while 88 (68.8%) felt otherwise; it was observed that 72 (56.3%) felt relieved after the abortion while 56 (43.7%) did not. However, 88 (68.8%) regretted after the abortion, and 40 (31.25%) did not; 40 (31.2%) respondents reported feeling stigmatised, while 88 (68.8%) did not; 40 (31.2%) experienced some form of infection because of the abortion, while 88 (68.8%) did not.

This study was carried out to assess the factors influencing the decision to abort among young adults at the University of Calabar. Most responders were between the ages of 18 and 20 (112, 29.2%), with a significant number of the participants from allied medical, basic medical, dental, biological, and social sciences (210, 54.7%). Most respondents were in their first year of study (120, 31.25%), and a high percentage were single (344, 89.55%), with 128 (33.33%) as against 256 (66.67%) having done an abortion at the time of data collection. These socio-demographic findings are in keeping with that of Appiah-Agyekum [3] which indicated that socio-demographic characteristics such as age, level of study and marital status influenced the incidence of abortion. However, it is at variance with that of Abiola et al. [7] who reported that age was not a factor in abortion.

An appreciable number of the respondents (91, 23.70%) indicated that they had been influenced by their friends and peers in their decision to carry out an abortion, and 12 (3.13%) were influenced by their family members. This is in line with the findings of Denberu et al. [8] who revealed that 45% of cases of abortion in their study were influenced by friends, and that of Atere et al. [9] where family pressure result in abortions. A majority (76, 55.88%) indicated that an aversion to the unintended responsibility of child-rearing was a factor that led to the decision to abort, with 73 (53.68%) reporting that the anticipated financial burden of raising a child was a decisive factor in seeking an abortion. This correlates with the findings of Orisaremi et al. [10] and Cadmus et al. [11] that financial considerations and fear of responsibility were factors in seeking an abortion. However, the lower figures concerning family influence in this study may be the result of most of the respondents residing in the hostel far away from home and family, coupled with the possibility that the family members may not even be

aware that they were pregnant in the first place. Also, the financial burden and fear of the responsibility of raising a child alone without support from the potential father due to possibly the poor interpersonal relationship between the respondents and their partners may account for most of the decision to abort. The result of this study shows that there was a statistically significant relationship between factors influencing abortion and the incidence of abortion among young adults at the University of Calabar. Other studies did not report a significant relationship.

Most respondents, 120 (93.8%) reported having some sleep disorders, (96,75%) felt anger, 88 (68.8) felt guilty and ashamed, and 104 (81.3) felt depressed; this correlates with the findings of Obertinca et al. [12] who reported that 22.13% experienced sleep disorders, with 36.06% angry, and 27.4% feeling guilt and ashamed, while 27.86% felt depressed. Also, 40 (31.2%) felt confident about the decision taken, with 72 (56.3%) feeling relieved after the abortion; this agrees with the findings of Ralph et al. [13] that 37% of respondents felt confident with their decision and 60% felt relieved. However, the fact that many felt regret after the abortion, and experienced some form of infection because of the abortion, underscores the severe pains and suffering of these young women, which extends to their families, friends, and the community at large.

Conclusion

This study revealed that the influence of family and friends, fear of repercussions, shame, threats, anticipated financial burden, unfulfilled educational aspirations, and poor nature of the relationship of respondents with the potential fathers were factors that led to abortion among young adults. Nevertheless, some respondents reported feeling confident and relieved, but this did not prevent feelings of regret and stigmatisation. Statistical analysis revealed that there was a significant influence of these factors on the incidence of abortion among respondents at the University of Calabar.

Recommendations

It is recommended that interventions to promote gender equality and power relationship, as well as human rights, need to be central to all future programmes and policies. Additionally, student orientation programmes should be geared towards informing females about abortion services since the decision to terminate has resulted from an imposition. Also, healthcare workers need to be trained in communication skills to promote shared decision-making and patient orientation in abortion counselling. Finally, the adolescent reproductive health policy needs to be practically implemented to save unborn children from the carnage that abortions subject them to.

Limitations

Given the personal and sensitive nature of abortion-related experience, this study acknowledges that there may be some under-reporting or misrepresentation by respondents. Although the study provides important descriptive insights into

some of the key experiences of respondents on abortion, it may not be an entirely accurate measure for generalising abortion experiences among students.

Cost

The researchers bore all the financial expenses.

Conflict of interest

The authors declare that there are no conflict of interest concerning the publication of this paper.

Contribution of authors

The concept for this study was conceived by OAO. Protocol and data collation was done by OAO, while quality appraisal and progress were made by all authors. All authors participated in the analysis, interpretation and write up. This study is the views of the authors and not that of their institution.

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