Original Article

Pattern and Outcome of Induced Abortion in Abakaliki, Southeast of Nigeria

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Abstract

Background: Unsafe abortion accounts for a greater proportion of maternal deaths, yet it is often not adequately considered in discussions around reducing maternal mortality. **Aim:** The aim of this study is to determine the pattern of unsafe abortion and the extent to which unsafe abortion contributes to maternal morbidity and mortality in our setting as well as assess the impact of post-abortion care. **Subjects and Methods:** A descriptive study of patients who were admitted for complications following induced abortions between January 1, 2001 and December 31, 2008 at the Federal Medical Center, Abakaliki South East of Nigeria with data obtained from case records. **Results:** Out of the 1,562 gynecogical admissions, a total of 83 patients presented with the complications arising from induced abortion. The age group 20-24 years was mostly affected and adolescents constituted 32.5% (27/83). Nearly 15.7% (13/83) of these patients died while the remaining 84.3% (70/83) had various complications, which were mainly septicemia 59.0% (49/83), anemia 47.0% (39/83), peritonitis 41.0% (34/83), hemorrhages 34.9% (29/83) and uterine perforation 30.1% (25/83). During the study, there were 38 gynecological deaths and abortion related death accounted for 34.2% (13/38) of these gynecological deaths. 84.3% (70/83) of the patients had no documented evidence of counseling on family planning and 59.0% (49/83) were not aware of the different methods of contraception. **Conclusion:** Unsafe abortion remains one of the most neglected sexual and reproductive health problems in developing countries today despite its significant contribution to maternal mortality and morbidity. Solutions and remedies include prevention of unplanned and unwanted pregnancies by sex education and access to safe and sustainable family planning methods.

Keywords: Abakaliki, Nigeria, Pattern, Unsafe abortion

Introduction

Unsafe abortion mainly endangers women reproductive health in developing countries with restrictive abortion laws and in those where though legalized, safe abortion is not yet universally accessible.[1] In Nigeria and most parts of Africa, abortion is highly restricted.[2] Consequently, women sought for clandestine means of terminating an unintended pregnancy thereby posing a great threat to their reproductive health and life.[1]

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Literally, more than one-third of the approximately 205 million pregnancies that occur world-wide annually are unintended and about 22% of all these pregnancies end in induced abortion.[1] In the developing world, lack of access to family planning results in some 76 million unintended pregnancies, with 19% ending in induced abortion of which 11% are unsafe.[1,3]

Yearly, Nigerian women obtain approximately 760,000 abortions, a rate of 25 abortions/1000 women of reproductive age.[4] Each year about 20,000 deaths from unsafe abortion occur in Nigeria.[4] In Ghana, the rate of unsafe abortion is about 31/1000 women and abortion related deaths are responsible for 22-30% of all maternal deaths,[5] in comparison to the world-wide estimate of 13%.[6] In West African countries complications of induced abortion was responsible for nearly a third of maternal deaths.[6]

Apart from maternal deaths, between 2 million and 7 million women who survive unsafe abortion each year sustain

long-term morbidity, chronic disabilities and reproductive health problems.[7]

Unplanned and unwanted pregnancies are the major causes of unsafe abortions.[7] In the developing countries, these conditions may have been accentuated by the prevailing low contraceptive usage especially among sexually active young women.[8] Even contraceptive counseling to help women avoid a future unwanted pregnancy is often unavailable. The cost of unsafe abortion to society is enormous. In Africa and Latin America, a government spends $114 and $130 respectively to provide care for illness and disability associated with unsafe abortion.[9]

This study therefore, is to assess the pattern and distribution of abortion related morbidity and mortality at Federal Medical Center (FMC) Abakaliki and to estimate the scope of the problems of unsafe abortion. This will help create awareness on the scourge of unsafe abortion and possibly create a forum for health policy review with regards to abortion law, sexual rights and reproductive health issues.

Subjects and Methods

This was a retrospective analysis of induced abortion cases as seen at the FMC Abakaliki over a 9 year period (January 1, 2000-December 31, 2008). FMC and Ebonyi State University Teaching Hospital are the 2 tertiary health facilities in Ebonyi State located in Abakaliki, Southeast Nigeria.

Ebonyi state has an estimated population of 4.3 million and occupies a land mass of 5935 km.[2] Almost 75% of the population dwell in the rural areas with farming as their major occupation.

Permission was obtained from the ethics and research committee of the hospital to embark on this study. The names of all patients with abortion and their hospital numbers were obtained from the gynecological ward as well as the accident and emergency unit. The clinical case records of all these patients were retrieved from the records department and cases of induced abortion were selected from the poll.

Information obtained from these records include age, parity, marital status, gestational age at the time of abortion, mode of presentation, complications, family planning knowledge and experience, professional level of the provider, place at which abortion was procured and duration of hospitalization.

Information also sought included method of care given for the complication and the counseling offered on family planning. The total number of gynecological admissions, total deliveries, maternal deaths and deaths related to induced abortion as well as all gynecological deaths were extracted from the hospital records.

The records were reviewed by trained staff using the pre-established and piloted data extraction forms. No postmortem examination was done on abortion related maternal deaths because the relatives objected to the procedure. Hence, the diagnosis of the possible cause of death was based on the clinical observation.

The data was analyzed using the epi-info 2007 software, version 3.4.1 (Centers for Disease Control and Prevention, Atlanta USA) and results were presented in tabular form.

Results

Table 1 shows the socio-demographic profile of patients with complicated induced abortion.

The age distribution ranged from 15 to 34 years. The mean age (standard deviation [SD]) was 21.3 (3.3) years. Majority of the patients 56.6% (47/83), were in the age bracket of 20-24 years while adolescents, 15-19 years constituted 32.5% (27/83). Nearly 78.3% (65/83) were nulliparous. 68.7% (57/83) were single while 30.1% (25/83) were married. 47.0% (39/83) and 21.7% (18/83) were secondary school students and undergraduates respectively.

Table 1: Socio-demographic profile of patients with complicated induced abortion (2001-2008)

Variables	Number of patient *N*=83	Proportion (%)
Age		
15-19	27	32.5
20-24	47	56.6
25-29	2	2.4
30-34	3	8.4
Parity		
0	65	78.3
1	12	14.5
2	5	6.0
3	1	1.2
Marital status		
Single	57	68.7
Married	25	30.1
Widow	1	1.2
Religion		
Christianity (not specified)	32	38.6
Anglican	20	24.1
Catholic	25	30.1
Pentecostal	4	4.8
Moslem	2	2.4
Level of education		
Primary	Nil	Nil
Secondary	39	47.0
Post-secondary	16	19.3
Tertiary	18	21.7
Graduate	5	6.0
No formal education	2	2.4
Not stated	3	3.6

Table 2 shows the different characteristics of the induced abortion. 41.0% (34/83) of the induced abortion occurred at gestational ages of 10-12 weeks. The mean gestational age (SD) was 11.4 (0.31) weeks.

Vaginal bleeding 30.1% (25/83) and abdominal pain 28.9% (24/83) were the leading presenting complaints.

The most common complication was sepsis 25.4% (21/83). Some of the patients had more than one presenting complaint or complication.

47.0% (39/83) of these patients procured the induced abortion at chemist shops.

Table 3 shows the treatment offered and the duration of hospitalization. 59.0% (49/83) of the patients had evacuation by curettage while 13.3% (11/83) had manual vacuum aspiration (MVA). Majority of the patients 84.3% had no documented evidence of counseling. Hospitalization ranged from 1 to 39 days with a mean (SD) of 21.3 (0.27) days.

Table 2: Characteristics of the induced abortion

Variables	Number of patients *N*=83	Percentages
Gestational age (weeks)		
7-9	25	30.1
10-12	34	41.0
13-15	13	15.7
16-18	7	8.4
>18	4	4.8
Presenting complaint		
Vaginal bleeding	25	30.1
Abdominal pain	24	28.9
Fever	19	16.0
Offensive vaginal discharge	11	13.3
Vomiting	5	6.4
Abdominal distension	3	3.2
Diarrhea	2	2.3
Associated complication		
Sepsis	21	25.4
Anemia	17	20.2
Peritonitis	15	17.6
Hemorrhage	12	15.0
Uterine perforation	11	13.0
Unconsciousness	4	4.7
Bowel injury	3	3.6
Jaundice	1	0.5
Facility offering induced abortion		
Chemist shop	39	47.0
Private hospital	13	15.7
Self-induced	7	8.4
Maternity home	7	8.4
Herbal home	4	4.8
Not stated	13	15.7

During the study period, there were 83 admissions following complicated abortions out of a total of 1562 gynecological admissions. This constitutes 5.2% of the total gynecological admission.

Thirteen of these patients were died as a result of complications following induced abortion giving a case fatality rate of 15.7%. The total number of gynecological deaths and maternal deaths during the period were 38 and 58. Hence, 22.0% (13/58) of maternal mortality was due to abortion related deaths and abortion related gynecological deaths accounted for 34.2% (13/38). A total of 695 abortions of all types occurred over the period of study and induced abortion accounted for 11.9% (83/695) of the total abortions.

Table 4 shows contraceptive usage and awareness of the patient who were admitted following complications of induced abortion. 59% (49/83) were not aware of contraceptive and had never used any contraceptive method in the past. Only 5 (6.0%) were using the contraceptive occasionally. None used contraceptives effectively or after the last menstrual period as contraception.

Discussion

Unsafe abortion threatens the lives of a large number of women and represents a grave public health problem.[1]

Table 3: Treatment offered at the tertiary hospital and duration of hospitalization

Variables	Number of patients	Percentages
Treatment		
Evacuation by curettage	49	59.0
Manual vacuum aspiration	11	13.3
Laparotomy + no hysterectomy	5	6.0
Laparotomy + hysterectomy	2	2.4
Medical treatment only	16	19.3
Documented counselling		
On family planning	13	15.7
Not documented	70	84.3
Duration of hospitalization (days)		
<1	Nil	Nil
1-7	61	73.5
8-14	7	8.4
15-21	4	4.8
>21	11	13.2

Table 4: Contraceptive usage and awareness

Variables	Number	Percentages
Aware and uses effectively	Nil	Nil
Usage just after LMP (emergency contraception)		
Aware but not using	20	24.10
Aware and uses occasionally	5	6.00
Not aware and not using	49	59.00
Not indicated	9	10.8

LMP: Last menstrual period

In this study, the age group, 15-24 years was mostly affected of which adolescents constituted 32.5% (27/83). This agrees with other reports.[1,8] Several studies have shown an increase prevalence of premarital sex among adolescents and contraceptives were rarely used owing to deep-seated cultural values, perceived risks of side-effects and provider bias.[2,10] A study in Lagos, Nigeria revealed that only 5% of adolescents with knowledge of contraception are users, whereas 85% of sexually active respondents were not bothered concerning contraception.[8] Majority of the patients in this study 59.0% (49/83), were not even aware of the different methods of contraception not to talk of usage. There is an evidence from qualitative studies that adolescents have low perception of risks associated with abortion compared with contraception, hence their propensities to use abortion rather than contraception for fertility control.[11]

Commonly unsafe abortion occurs in areas where abortion is restricted or liberalized but access to safe abortion is denied.[12] As a result, safe abortion services cannot be obtained in most public health institutions.[4] Majority of the complications in this study occurred in patients who had induced abortion in chemist shops and is supported by the finding that 60% of unsafe abortion are mainly carried out by unskilled providers.[13] However, this is not in keeping with the available evidence, which suggests that doctors working in a private setting perform 80% of induced abortion in Nigeria.[14] and up to 30% of these experience mild to moderate complication.[15]

Complications arising from induced abortions are the principal cause of maternal mortality associated with unsafe abortion. Induced abortion related complications in this study contributed 5.2% of all gynecological admissions with case fatality rate of 15.7% and abortion related maternal mortality of 22.0%. These results are in consonance with the findings reported from other parts of the country.[16,17]

However, these findings may not be an accurate reflection of the true pattern of unsafe abortion in Nigeria as many of the victims prefer the hidden private clinics to government hospitals to ensure privacy and avoid societal condemnation.[17] In addition many may have died before reaching a facility.[18]

The most common complication in this study was sepsis, 25.4% (49/83). It occurred in 57.1% of cases reported in Kaduna[16] and 73% of cases in Niger Delta, Nigeria.[19] This could be attributed to the fact that majority of the induced abortion in this study were carried out by medically unqualified personnel in substandard environment using the non-sterile instruments. Late presentation for post abortion care may have been contributory.

The most common clinical presentation in this study was vaginal bleeding and is in keeping with other studies.[17,20] This could be attributed to incomplete abortion and trauma to genital tract/uterus.

The management is highly individualized and depends upon the clinical state of the patient. Options of the management range from conservative in cases that have poor clinical presentation and surgical intervention in the form of laparotomy ± hysterectomy. MVA is safer, faster, more comfortable and associated with shorter hospital stay than sharp curettage and is the preferred method of uterine evacuation before 12 weeks.[21] Sharp curettage 59.0% (49/83) was however used predominantly in this study even when the uterine sizes were <12 weeks in 71.1% (59/83) of the cases. A study among health-care professionals who treated abortion complications in south eastern Nigeria revealed that only 35.5% used a manual vacuum aspirator.[21] Increased training of health workers in the use of MVA for the treatment of complications of unsafe abortion is advocated.

Surprisingly in this study, the documented evidence of counseling on family planning was 15.7% (13/83) as against 84.3% (70/83) who had none. Effective counseling is an integral part of high quality post abortion care.[22] Contraceptive counseling and provision at the time of treatment reduced unintended pregnancies and repeat abortion by 50% over a year in Zimbabwe compared with post-abortion patients who did not receive such services.[23]

In our environment, unwanted pregnancy carries a serious social stigma especially for unmarried girls who are still in school. The fear of interruptions in education often drives them to seek for induced abortion.[24] This is in conformity with the findings in this study with students of secondary school rating highest in the percentage of unsafe abortion. In Tanzania, it was found that nearly a third of victims of unsafe abortion were teenagers of whom about one in every four were students of primary and secondary schools.[25]

Limitations of this study are noted here. The small sample of patients cannot be considered representative of the women in Nigeria.

The retrospective nature of this study and the organizational constraints existing in the hospital (lack of exhaustive registers in the gynecological and maternity units) may have introduced bias into our study. Institutional factors reflecting on the quality of care given and the resulting mortality could not be assessed. These limitations must be borne in mind when interpreting our results.

Unsafe abortion has shown no decline in numbers and rates despite their being entirely preventable. This study has shown that induced abortion is a major contributor to maternal morbidity and mortality in Nigeria as has been widely reported.[16,17] Prevention of unsafe abortion starts with prevention of unwanted pregnancies. Providing information and improving access to modern contraception are important steps toward eliminating unplanned pregnancy and will substantially reduce the need for abortion to regulate fertility.

Sex education should be organized in a manner that will be beneficial to teens and adolescents who are major victims of unsafe abortion. In all cases, women should have access to post abortion care that encompasses effective counseling at the primary, secondary and tertiary health facilities with an efficient referral system linking the institutions.

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