ORIGINAL ARTICLE

Clinical Presentation and Complications in Patients with Unsafe Abortions in University of Calabar Teaching Hospital, Calabar, Nigeria

Ekanem E I, *FWACS*, **Etuk S J**, *FWACS, FMCOG,* **Ekabua J E**, *FWACS*, **Iklaki C**, *FWACS*

Department of Obstetrics & Gynaecology, College Of Medical Sciences, University Of Calabar, Calabar, Nigeria

Abstract

Background*: Unsafe abortion still contributes significantly to high maternal morbidity and mortality particularly in developing countries despite concerted efforts being made to reduce it. Our objective is to determine the incidence, mode presentation and complications of Unsafe abortion.*

Method: *This prospective study was carried out by directly interviewing patients managed for unsafe abortion over one and half years period (1st June 2003, to 31st December, 2004) in Maternity Annex of the University of Calabar Teaching Hospital Calabar, Nigeria.*

Results: *Incidence of Unsafe abortion of 27.6% of all gynaecological admissions was established. Most Patients (55.7%) were age 20 30 years while 25.4% were teenagers. There were 33 (27.1%) students, 38.2% were single women and 38.5% had secondary education. The major reasons given for terminating the pregnancy included completion of education (25.4%), fear of parental action (18.8%) and in 17.2% the father of the pregnancy was unknown. Medical officers (32.8%) performed majority of the abortions while 10.7% were self induced by the patients themselves. Main complications encountered included retained product of conceptions, haemorrhage, sepsis, injuries to genital tracts and intra-abdomal organs.*

Conclusion: *Unsafe abortion and it complications occurs in all socioeconomic groups. Efforts directed at reducing unintended pregnancy by comprehensive family planning programs and effective emergency post abortal care services will reduce the problem while the legal status of abortion is being debated.*

Keywords*: Unsafe abortion, University of Calabar Teaching Hospital*

Date Accepted for publication: 18th July 2007
Nig J Med 2009; 370 - 374

Introduction

Unsafe abortion remains a major reproductive and public health problems in Nigeria and most developing countries of the world where an estimated 30 millions of the 50 millions induced abortion occur annually.[1-3] World Health Organisation estimates that 13% of all maternal death globally is due to abortion related complications.[4] The burden is much higher in developing countries with incidence 20 45% being reported.[5-7] Also 19 45% of admissions in most gynaecological settings in this area are due to problems of unsafe abortion.[8-10]

Immediate complications such as haemorrhage, sepsis and various maternal injuries impact negatively on maternal health.[3,10,11] Subsequent interventions with blood transfusions, antibiotic therapy and surgical procedures use to salvage the victims significantly task the lean medical resources of most poor countries of the world.[12,13] The long term effects of loss of fertility, pelvic pains, failure to achieve vocational aspirations, socio-economic and psychological influence of this problem on women are often underestimate.[3,14] The latter may affect the woman's political and economic contributions to national development.

Intense debates on legal status of induced abortions in most developing countries where the laws are considered restrictive are going on with strong views being held by the pro-life and pro-abortion groups on the desirability or otherwise of modifying such laws. [3,14] However, there is an agreement among these two groups that the consequences of ignoring the problems and the negative impact on socio-economic and political progress of any society is enormous. It is therefore accepted that effective measures and resources be directed toward breaking the cycle of unmet reproductive needs, unwanted pregnancy and unsafe abortion irrespective of the legal position of the society.[3,15] A well organized post-abortal care services can reduce complications and mortality from unsafe abortion even in areas where restrictive law operate.[10,15] This study was therefore conducted in University of Calabar Teaching Hospital Calabar, Nigeria to assess the incidence, presentation and complications of patients with unsafe abortion as seen in the hospital.

Correspondences ***Dr. Etim. I. Ekanem,*** *E-mail: ekanmetim@yahoo.com*

It is hoped that the findings of this study will assist in the selection of the vulnerable group of people in the society where preventive measures on abortion will be targeted.

Patients and Methods

This prospective study was conducted in University of Calabar Teaching Hospital between 1st June, 200 to 31st December, 2004. Information was obtained from the patients by direct interview using a semi-structured questionnaire. This was administered to the patients by the authors on admission to the ward, on discharge from the ward and at 6th week follow-up clinic. Other clinical details were extracted from the patients' case files, ward and operation theatre records.

Patients with spontaneous abortion and those with incomplete information for analysis were excluded from the study. Information obtained included age, occupation, marital status of the patient, gestational age at termination of pregnancy and complications encountered. Clinical findings at presentation as well as place and personnel who performed the procedure were also recorded.

For the purpose of this study the following definitions were entertained:

1) The educational level of the patients was graded based on the number of years in school as follows:

Description	Examples
No formal education	Illiterate
One to 6 years in school	Primary Education
7 12 years in school	Secondary
13 or more years in school	Tertiary

2) For patient that had more than one complications or modes of clinical presentation the major feature was selected.

3) Unsafe abortion is defined as abortion which was undertaken outside health care system, is performed by unskilled providers under unsanitary condition or both. [17].

The data was analysed using EPI info 6, 2000 version and presented in tables and percentages.

Results

During this period 492 patients were admitted in gynaecological ward. Also 390 surgical operations were performed. With 126 patients managed for complications of unsafe at the same time, an incidence of 27.6% of all admission or 33.2% of all surgical operations was recorded.

Table 1 shows socio-demographic characteristics of the patients. Sixty eight (55.7%) patients were in the age group of 20 30 years, 31 (25.4%) were teenagers while 53 (2.5%) were above 40 years of age. Thirty-three (27.1%) patients were students followed by 27 (22.1%) traders and 21 (17.2%) housewives. Others which included street hawkers, house maids, and hairdressers, seamstress and unemployed patients were 12 (9.8%). Twenty-six (21.3%) had no formal education while 47 (38.5%) had Secondary education. Forty-seven (38.2%) were single women who had never married before, currently married patient were 34 (27.9%) while others (divorcees, separated women, widows and co-habituating ladies) were 17 (13.9%). Eighty one (66.4%) patients were nulliparous while 15 (12.3%) were gradmultiparous.

Table 2 shows reasons the patients terminated the pregnancy and the identity of the providers. Reasons for terminating the pregnancy varied from completion of education in 31 (25.4%) and fear of parental actions in 23 (18.8%) to father of the pregnancy being unknown or disown the pregnancy in 21 (17.2%). Financial difficulty in coping with the pregnancy were reasons given by 18 (14.8%) patients while 6 (4.9%) were too old to carry pregnancy. Medical officers provided abortion services in 40 (32.8%) followed by pharmacist 23 (18.8%) and chemist attendants in 20 (16.4%) patients. Thirteen (10.7%) were self induced using various pharmacological agent and dangerous instruments.

Table 3 shows clinical findings at the time of presentation. Majority 28 (23.0%) were in shock 132 (26.2%) had severe vaginal bleeding requiring blood transfusion and 23 (18.0%) had offensive Vaginal discharge. Nineteen (15.6%) had severe abdominal pains with tenderness. One patient had convulsion and later coma from bacterial meningitis.

Table 4 represents gestational age at termination of pregnancy and complications. Eighty-six (70.5%) of the procedures were performed in the first trimester of pregnancy while 5 (4.0%) were done after 20 weeks. Common complications encountered included retained

products of conception (18.9%), haemorrhage (15.6%), sepsis (22.1%) and genital tract lacerations (11.5%). Bowel and urinary tract injuries occurred in 6 (4.9%) and 3 (2.5%) patients respectively. Five patients died giving case fatality ration of 4.1%.

Table I: Socio-demographic Characteristics of Patients

Age (Years)	No	(%)
19 and less	31	*25.4*
20 30	86	*55.7*
31 40	20	*16.4*
Above 40	3	*2.5*
TOTAL	**122**	***100***
Occupation of Patients		
Farmers	16	*13.1*
Traders	27	*22.1*
Civil Servants	13	*10.7*
House wives	21	*17.2*
Students	33	*27.1*
Others	12	*9.8*
TOTAL	***122***	***100***
Educational Qualification of Patients		
None	26	*21.3*
Primary	35	*26.7*
Secondary	47	*38.5*
Tertiary	14	*11.5*
TOTAL	**122**	***100***
Marital Status of Patients		
Married	34	*27.9*
Unmarried	71	*58.2*
Others	17	*13.9*
Parity distribution of Patients		
0	81	*66.4*
1 4	26	*21.3*
5 and above	15	*12.3*
TOTAL	***122***	***100***

Table IIa: Reasons for termination of Pregnancy and identify of the providers

Reasons for termination of Pregnancy	No	%
To complete vacation or career	31	*25.4*
Fear of parental action	23	*18.8*
Father of baby unknown/disown pregnancy	21	*17.2*
Financial problems	18	*14.8*
Too many children	10	*8.2*
Too young to get pregnant	9	*7.4*
Too old to get pregnant	6	*4.9*
Others	4	*3.3*
TOTAL	**122**	***100***

Table IIb: Reasons for termination of Pregnancy and identify of the providers

Identity of the Abortion providers		
Self Induced	13	*10.7*
Medical Officer	40	*32.8*
Pharmacist	23	*18.8*
Nurses	18	*14.8*
Chemist Attendant	20	*16.4*
Others (Traditional healers)	8	*6.5*
TOTAL		

Table III: Clinical Findings at Presentation

Features		
Shock	28	*23.0*
Vaginal bleeding	32	*26.2*
Foul Smelling Vaginal discharge	22	*18.0*
Abdominal pain/Tenderness	19	*15.6*
Faecal Incontinence	14	*3.3*
Urinary incontinence	3	*2.5*
Convulsion/Coma	31	*0.8*
Jaundice	6	*4.9*
Others	*7*	*5.7*

Table IV: Gestational Age at termination of pregnancy and complications

		Gestational Age (weeks)		
Complications	Total (%)	13 & Less (%)	14 20 (%)	*> 20 (%)*
Retained products of conception	23 (18.9)	16	6	*1*
Haemorrhage	19 (15.6)	9	8	*2*
Sepsis	27 (22.1)	23	4	-
Uterine Perfections	9 (7.3)	8	1	-
Genital Laceration	14 (11.5)	9	4	*1*
Bowel Injuries	6 (4.9)	5	1	-
Wound breakdown	11 (9.0)	9	2	-
Urinary injuries	3 (2.5)	-	2	*1*
Others	10 (8.2)	1	7	*3*
TOTAL	***122 (100)***	***86 (70.5)***	***31 (25.4)***	***5 (4.0)***

Discussion

The incidence of Unsafe abortion in this study is quite high but similar to other reports from other developing countries. [2,9,16] It much higher than what is obtained in developed countries where most procedures are performed legally and in a safe manner. [4,17] The incidence in this study is probably higher as only people with severe life threatening conditions are seen in this tertiary institution. Also giving the restrictive law and societal stigmatization of abortions in Calabar most patients and providers are very reluctant to volunteer information or present themselves in public hospitals for treatments. However, this demonstrates the reproductive and public health burden this scourge exerts in our health systems. Most of the scarce resources are now being diverted to the care of these patients leaving very little for other pressing health needs.

Most patients in this study were unmarried teenagers with at least secondary education. Similar findings have been reported by others from this centre and other developing countries. [18 - 20] It has long been established that young school girls are particularly vulnerable to having unsafe abortion due to their health seeking habit. Often there is delay in seeking abortion, resort to unskilled providers, use of dangerous methods and delay in seeking help when complications occur. Increase in number of years in school and subsequent delay in marriage with associated premarital sexual activities and societal disapproval of out of wedlock pregnancy make this group of patients is more desperate to end pregnancy in abortion. [14,21]

However, 2.5% were above 40 years of age, 27.9% were married and 12.3% were grandmultiparous women. This shows that unsafe abortion cut across all socioeconomic groups. This later group has large unmet contraceptive needs. Since they want to either limit or space family to a level that they can carter for in line with current economic and technological realities. [14,16,22]

The various reasons given by the patient for embarking on this dangerous procedure reflects the level in which the socioeconomic, cultural, religious and government policies influence the reproductive health programs in our society. Most patient (25.4%) in this study cited disruption of school and other vocational aspirations as main reason for terminating pregnancy. Similar observations have been made by others. [18-20] The fear of terminating vocation is real. Expulsion of pregnant girls from school, in the armed and police forces are still being practiced in Nigeria. Studies have shown that many girls (married or unmarried) who deliver while in school drop out from schools or fail to realize their vocational aspiration [14,21,22], thereby resulting in lower status and poor empowerment.

Fear of parental actions and financial difficulties were cited by some of the patients. These were also reported by others from developing countries. Societal disapproval of out-of-wedlock pregnancy and being disowned by parents are common practice in our society. This usually forces young girls who may be poor and initially hide the pregnancy to embark on cheap but dangerous methods to end the pregnancy. [3,13,16]. Same trend are also observed in areas where there is no legal restriction to abortions. For example 4.7 millions out of 5.3 million abortions in India in 1989 and 2.5 million abortions in Zambia in 1991 were unsafe while in Turkey 49 per 100,000 death were due to complications of abortion. [23] Problem of confidentiality, poor quality of care, cost and cumbersome process as well as lack of awareness of the legal status were cited by the patients in these countries. [22,23] Even in countries where the law on abortion are restriction safe procedure are still undertaken by doctors in private clinics. Women with financial capability can travel to other countries for safe legal abortions. [10,14,23]

Most of the procedure in this study were provided by medical officers (32.8%) followed by pharmacists (18.9%) and 10.7% were self induced. These have also been observed by others in developing countries. [(1,12,19)] Some of these procedures by doctors performed in their car garages, toilets, private rooms or other unsanitary environments thereby predisposing the patients to sepsis. They use sharp curettage and medical methods. Also, they were more likely to perform the abortions at advanced gestational age than other providers. Large proportion of the patients in this study carried out the abortions using various methods ranging from herbal preparations, other pharmacological agents to genital instrumentation with bicycle spokes, broomsticks, or candle. This is different from other reports were between 1.5 8% abortions were procured by the patients themselves. [3,21,24]. In Calabar most of the patients were poor students or unemployed. Besides attitudes of the partners who refuse to assist the victim financially as shown by 17.2% denial of the pregnancy. Oye-Adeniran et al in their study in 2004 showed that in 50.3% of abortion in Nigeria the partners bore the cost. A prospective study with larger sample size may help elicit the main reason why patients prefer to perform abortion themselves. This will help in planning prevention strategy which will reduce both incidence and complications association with self induced abortion.

In this study immediate and early complication encountered included retained products of conception, haemorrhage, sepsis trauma to genital tract and other intra-abdominal structures. This is also observed by others where they constitute commonest gynaecological emergencies in developing countries. [8,9,11,15] However, sepsis, bowel and urinary tract injuries were more common in Calabar probably because many abortions were done at relatively higher gestational age (29.4% were done at second trimester) by none specialist where special techniques are required. Bowel injuries were associated with prolonged hospital stay, required major surgical intervention and carried a higher mortality. A study aim at identifying factors that predispose to bowel injuries during unsafe abortion is being planned.

Case fatality ratio of 4.1% in this study is quite high. Most patients that died had multiple complications, presented later in the hospital and were adolescents from poor background who sought abortion at relatively higher gestational age. This findings though observed by other [5,7,12,24] emphasis, the fact that a comprehensive and well organized emergency post-abortal care services would reduce morbidity and mortality from Unsafe abortions.

This study has shown that the problem of unsafe abortion is common amongst our people and cut across all socio-economic groups. It carries high maternal

morbidity and mortality. A prospective, longitudinal community based study with a larger sample size is required to identify women at risk and also assess long tem complications associated with unsafe abortion.

Reduction in the level of unintended pregnancy by comprehensive family planning program will reduce unsafe abortion and then morbidity and mortality associated with it. This will then reduce the health care system cost of treating abortion complications. Improvement in women's health will lead to their significant contribution to national productivity and development.

References

1. Alan Guttmaher institute (A.G.I). Reducing unintended pregnancy in Nigeria. Research series in Brief. New York: AGI, 2005; 4:1 7.
2. Henshaw SK, Sing S, Oyo-Adeniran BA, Adewole IF, Iwere N and Cuca YP. The incidence of induced abortion in Nigeria. Int Fam plan Perspec 1998; 244; 156 164.
3. Osiemo R. Unsafe abortion in Kenya. Trop Doct 2005; 35: 158 159
4. World Health Organisation. Unsafe Abortion: Global and Regional Estimates of incidence of mortality due to Unsafe Abortion with a listing of Available Country Data. Generva: World Health, 1998, (WHO/RHT/MSM/97.16)
5. Emuvayan EE and Agboghoroma OC. Trends in abortion related maternal mortality in Lagos, Nigeria. Trop J Obstet Gynaecol 1995; 14 (1): 39 41.
6. Adewole IF. Trends in post abortal mortality and morbidity in Ibadan, Nigeria. Int J Gynaecol Obstet 1992; 38 (2): 115 118.
7. Ba-Thike K. Abortion: a public health problem in Myanmar. Reprod Health Matters. 1997; 1994 100.
8. Gardeil F, Sangala V. Retrospective study of 600 Consecutive admissions with abortion at Kamuzu Central Hospital Malawi Med J 1991; 7: 113 114.
9. Huntigton D, Nawar L, Hassan EO, Yourseff H, Andeltaumbs N. The post abortion caseload in Egyptian Hospitals a descriptive study. Int fam plan perspect. 1998; 30: 195 197.
10. Singh S, Prada E, Mirember F, Kiggundu C. The incidence of induced abortion in Uganda. Int Fam persect, 2005; 3 (4): 183 191.
11. Oladepo OT, Corker AA. Bowels prolapse and gangrene following vaginal vault perforation. And example of menace of Criminal abortion in Nigeria. Trop Doc 2005; 35: 176 177.
12. Udoma EJ, John ME, Ekanem AD, Etuk SJ. Hysterectomies amongst teenagers in Calabar, Nigeria. Trop Doct 2004: (34): 110 112.
13. Adewole IF. Oye-Adeniran BA, Iwere N, Oladokun A and Gbadegsin A. terminating and unwanted pregnancy: the economic implications in Nigeria. J. Obstet Gynaecol 2002; 22(4): 436 437.
14. Brock N V D. The problem of unsafe abortions Trop Doct, 2005: 35: 129.
15. Otsea K. The place of abortion care in safemotherhood programs. J Obstet Gynaecol East Central Africa 1993; 11: 3 7.
16. Adanu RMK, Ntumy MN, Twenboah. Profile of women with abortion Complication in Ghana. Trop Doct 2005; 35: 138 141.
17. World Health Organisation (WHO) Maternal Health & Safemotherhood program. Abortion: A tabulation of available data on frequency and mortality of unsafe abortion. 2nd ed. Geneva. WHO, 1994. P. 117.
18. Archibong EI. Illegal induced abortion, a continuing problem in Nigeria Int J Gynaecol Obstet 1991; 34(2): 261 265.
19. Omu AE, Oronsany AU, Fall MBK and Asuquo EJ. Adolescent induced abortion in Benin City, Nigeria. Int J Gynaecol Obstet 1987; 19: 495 499.
20. Adetoro OO, Babarinsa AB and Sotiloye OS. Sociocultural factors in adolescent septic illicit abortion in Ilorin. Nigeria Afr J Med Sci 1991; 20 (2): 149 153.
21. Oye-Adeniran BA, Adewole IF, Umoh AV, Fapohunda OR and Iwere N. Characteristic of Abortion Care Seekers in South West Nigeria. Afr J Reprod Health 204; 8 (3): 81 91.
22. Sangala V Safe abortion: a Woman's right. Trop. Doct 2005, 35: 130 133.
23. World Health Organisation Population Reports Care for Post abortion complications: saving women's lives 1997; 25 (1): 1 31.
24. Megafu U and Ozumba BC. Morbidity and Mortality from induced illegal abortion in the University of Nigerian Teaching Hospital Enugu: a five-year review. Int J Gynaecol Obstet 1991; 34: 163 167.