Sociodemographic Determinants of Complicated Unsafe Abortions in a Semi-urban Nigerian Town: A Four-year Review

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ABSTRACT

Background: *Abortions performed by persons lacking the requisite skills or in environments lacking minimal medical standards or both are considered unsafe. It is estimated that over 20 million unsafe abortions are performed annually and about 70 000 women die globally as a result, with the majority occurring in the developing world. This study aims to determine the sociodemographic factors involved in complicated unsafe abortions.*

Subjects and Methods: *The study is a four-year retrospective evaluation of all cases of complicated unsafe abortions managed at the Niger Delta University Teaching Hospital, Okolobiri, Bayelsa state, Nigeria between January 1, 2007 and December 31, 2010.*

Results: *The incidence of unsafe complicated abortions over the study period was 4.10% of total deliveries and contributed 14.0% of gynaecological admissions: 34.92% occurred in adolescents less than 20 years of age, of which the majority (55.55%) were secondary school students. There were 55.45% of patients who were nulliparae, 60.32% were unemployed and 69.80% were unmarried. A total of 87.30% had never used any form of contraceptive. Abortion mortality rate was 256/100 000 deliveries and the case fatality was 4.76%. It constituted 30.0% of all gynaecological deaths and 17.64% of maternal deaths during the study period. The commonest cause of death was septicaemia (66.66%).*

Conclusion: *Unfavourable sociodemographic factors are major determinants of the high incidence of unsafe abortion in the Niger Delta despite strict abortion laws. Concrete measures must be put in place to address these, as unsafe abortion and its complications are a major cause of maternal morbidity and mortality in the environment.*

Keywords: Outcome, sociodemographic factors, unsafe abortion

Determinantes sociodemográficas de Abortos Inseguros Complicados en un Poblado Semiurbano de Nigeria: Una Revisión de Cuatro Años

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RESUMEN

Antecedentes: *Los abortos realizados por personas que no poseen las habilidades requeridas o en circunstancias en las que faltan las normas médicas mínimas, o ambas, son considerados inseguros. Se estima que se realizan encima de 20 millones de abortos inseguros anualmente y aproximadamente 70 000 mujeres mueren globalmente como resultado, presentándose la mayoría de estos casos en el mundo en vías de desarrollo. Este estudio se propone determinar los factores sociodemográficos involucrados en los abortos inseguros complicados.*

Sujetos y métodos: *El estudio es una evaluación retrospectiva de cuatro años de todos los casos de abortos inseguros complicados tratados en el Hospital Docente Universitario de Niger Delta, Okolobiri, estado de Bayelsa, Nigeria, entre el 1^{ero} de enero de 2007 y el 31 de diciembre de 2010.*

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Resultados: *La incidencia a lo largo del periodo de estudio fue 4.10% y contribuyó el 14.0% de los ingresos ginecológicos: 34.92% ocurrieron en los adolescentes de menos de 20 años de edad, de los cuales la mayor parte (55.55%) eran estudiantes de escuela secundaria. Hubo 55.45% pacientes nulíparas, 60.32% desempleadas y 69.80% solteras. Un total de 87.30% nunca había usado contraceptivo alguno. La mortalidad por aborto fue 256/100 000 partos, y la fatalidad de casos fue 4.76%. Ello constituyó el 30.0% de todas las muertes ginecológicas. La causa más común de las muerte fue la septicemia (66.66%).*

Conclusión: *Los factores sociodemográficos desventajosos constituyen determinantes principales de la alta incidencia del aborto inseguro en Niger Delta, a pesar de sus estrictas leyes en contra del aborto. Deben tomarse medidas concretas para abordarlos, ya que el aborto inseguro y sus complicaciones constituyen una de las mayores causas de morbosidad maternal y mortalidad en el ambiente.*

Palabras claves: Resultado, factores demográficos, aborto inseguro

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INTRODUCTION

Unsafe abortion is a persistent, but preventable pandemic with grave implications for the life of women and their reproductive career (1, 2). It is defined by the World Health Organization (WHO) as a procedure for terminating an unwanted pregnancy, either by a person lacking the necessary skill or in an environment lacking the minimum standard or both (2). Of the over half a million maternal deaths that occur each year, globally (2, 3), it is estimated that one quarter to one third may be a consequence of complications arising from unsafe abortions (1, 4, 5).

It is estimated that about 210 million pregnancies occur each year, nearly half of these pregnancies are unplanned and a greater percentage is definitely unwanted (2, 3, 6). With such a large proportion of unplanned and unwanted pregnancies, it is not surprising that every day, some 150 000 women undergo induced abortions (2, 7). Unfortunately, for a variety of reasons, a third of these women end up in clandestine or otherwise unsafe abortion 'clinics' or in the hands of illegal practitioners (5, 8, 9).

Reliable data on the incidence of unsafe abortion are generally lacking, especially in countries like Nigeria where access to abortion is legally restricted. Hence, under-reporting is routine even in countries where abortion is legally available upon request (8–12).

Unsafe abortion is most often associated with attendant complications of sepsis, haemorrhage requiring blood transfusion, uterine and bowel perforation, pelvic abscess, endotoxic shock, renal failure and death. Long term sequelae include ectopic pregnancy, chronic pelvic pain and infertility with grave implications for future reproductive health of the woman (2, 7, 13–20).

This descriptive study sought to highlight the sociodemographic problems associated with unsafe abortion in our environment, in order to proffer measures that can help curtail this continuing gynaecological catastrophe.

SUBJECTS AND METHODS

The study is a four-year retrospective review of all cases of unsafe abortion managed at Niger Delta University Teaching Hospital (NDUTH), Okolobiri, Bayelsa State, Nigeria, from January 1, 2007 to December 31, 2010. The sources of information were gynaecological and labour ward records, patient's records and case notes.

Data collected were analysed, variables relating to yearly trends in incidence of unsafe abortion, sociodemographic variables, method use, pattern of clinical presentation and outcome were obtained. The information obtained was coded and transferred onto a proforma already designed for the study. The software SPSS version 11 (SPSS, Chicago, IL, USA) and InStat 3 (Graph Pad Software Inc., San Diego, CA, USA) were used.

RESULTS

During the four-year period of the study, there were 449 gynaecological admissions and the total deliveries were 1540. During this same period, there were 63 unsafe abortions, giving an incidence of 4.1% of total deliveries and 14.03% of total gynaecological admissions.

Figure 1 shows the annual trend of the incidence of unsafe abortions (expressed as a percentage of total deliveries). The incidence was 11.6% in 2007 and steadily declined

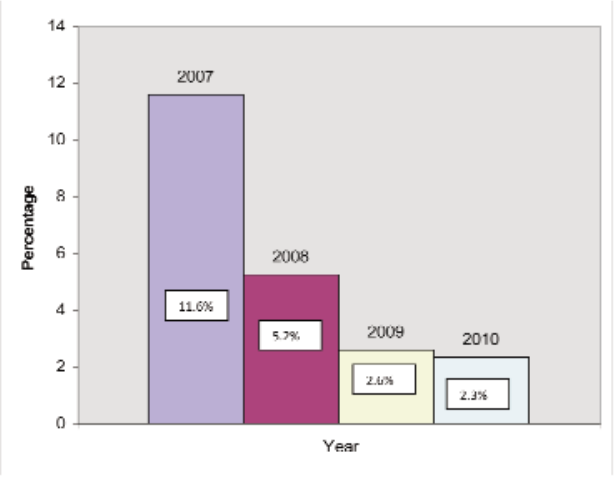

Fig. 1: Annual trend in the incidence of unsafe abortion.

to 2.3% in 2010.

Table 1 shows the sociodemographic characteristics of the patients presenting with complications of unsafe abortion. Teenagers comprised 31.8% of the patients, while 55.5% were nulliparous. More than half (55.6%) just had secondary education, 60.32% were unemployed and 69.80% were unmarried.

Table 1: Sociodemographic characteristics of the patients

Parameters	Number (n = 63)	Percentage
Age (years)		
≤ 19	20	31.8
20–29	33	52.4
30–39	7	11.1
≥ 40	3	4.8
Parity		
0	35	55.45
1–4	24	38.10
≥ 5	4	6.35
Educational status		
Nil	3	4.76
Primary education	5	7.93
Secondary education	35	55.55
Undergraduates	11	17.46
Graduates	9	14.28
Occupation		
Unemployed	38	60.32
Petty trader	11	17.46
House wife	6	9.52
Civil servant	4	6.35
Farmer	4	6.35
Marital Status		
Married	19	30.20
Unmarried	44	69.80

The majority (87.30%) of the patients had never used any form of modern contraceptive method. Two-thirds (66.7%) of the patients had terminated at least one pregnancy in the past.

Most (69.83%) of the unsafe abortions were late abortions (late first trimester or second trimester). Figure 2 shows that only 7.93% of the abortions were performed by doctors while 47.6% were performed by quacks and 30.1% were self-induced.

Table 2 shows that in 65% of patients, different types of instrumentation were employed. Most (73%) of the patients presented after one week following the procurement of abortion.

Table 3 shows that genital sepsis, retained products of conception, pelvic abscess and septicaemia constitute the most frequent complications occurring in 88.88%, 82.53%, 22.22% and 19.04%, respectively.

The majority (87.33%) had both medical and surgical management, while 12.67% of the patients were treated with antibiotics alone. Of those who had surgical management, 82.9% had evacuation of retained products of conception alone, 22.22% had exploratory laparotomy with drainage of pelvic collection, 6.34% had repair of uterine perforation, 4.76% had hysterectomy, 3.17% had bowel repair (of perforation) and 1.58% had repair of bladder injury.

Three patients (4.76%) who presented with complica-

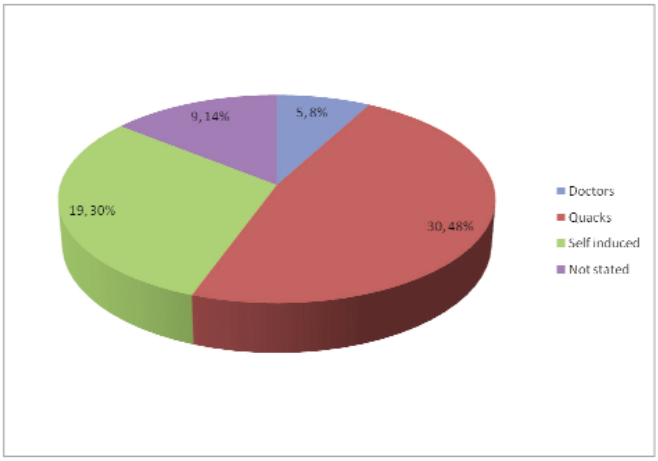

Fig. 2: Status of abortion provider.

Table 2: Method of termination of pregnancy

Parameters Methods of termination	Number	Percentage
Medical alone (oxytocin, ergometrine, purgative saline, alcohol *etc*)	7	11.1
Local herbs in the vagina	12	19.1
Medication and instrumentation	4	6.3
Instrumentation alone (D&C, knitting needles, hangers, abdominal massage *etc*)	37	58.7
Not stated	3	4.8
Total	**63**	**100**

Table 3: Morbidities among the patients

Complication	Number	Percentage
Genital sepsis	59	88.88
Retained products of conception	52	82.53
Pelvic abscess	14	22.22
Septicaemia	12	19.04
Perforated uterus	4	6.34
Haemorrhagic stock	4	6.34
Gangrenous uterus	3	4.76
Acute renal failure	3	4.76
Perforated intestine	2	3.17
Bladder injury	1	1.58
Tetanus	1	1.5

tions of unsafe abortion during the study period died, giving an abortion case fatality rate of 256/100 000. Two (66.66%) died of septicaemia and one died of acute renal failure (33.33%). During this same period, there were 17 maternal deaths in the hospital; therefore, induced abortions were responsible for 17.6% of all maternal deaths.

DISCUSSION

This review reveals that patients admitted on account of complications from unsafe abortion constituted about fourteen per cent of gynaecological admissions during the study period. This is much lower than 25–77% reported from other centres in Nigeria (6, 14, 18). The incidence of unsafe abortion shown in this study was 4.1%, although this is a hospital based study. The true incidence of illegal abortion in any community is speculative (1, 4). This is because the majority of induced abortions are done privately and when complications arise, they are treated outside the government health institutions and, therefore, not documented (13, 21, 23–26).

The age distribution of the cases in this study ranges from 12 to 44 years, with the under 20-year old group constituting the majority of the cases (38.09%). This finding reaffirms the distribution pattern of induced abortion in other institutions from Nigeria and even other African countries where 32 to 72% of young women presenting to hospitals with abortion complications were under 20 years old (5, 12, 21, 25).

The review also revealed that marital status, educational qualification and unemployment are important sociodemographic factors contributing to illicit abortions. While 69.80% of the patients were unmarried, 55.45% were nulliparae, about 55.55% were either in secondary schools or had just completed secondary education. These findings are similar to other work which showed that unsafe abortions are predominantly a problem of adolescents, nulliparae and students (22–25). Single women who seek contraceptive services face the obstacle of social and cultural restriction which makes it difficult for them to obtain effective contraception (27–29). Evidence also abounds that educated women generally have access to safe abortion services no matter the legality, while it is the poor uneducated that resort to unsafe illegal abortion (28).

Contraceptive utilization among the patients showed that 87.30% had never used any form of contraceptive, while only 7.93% had used contraception before. Other studies had shown that only 3.5% of married couples use a modern contraceptive method and 2 to 6% of sexually active adolescents practise any form of contraception (20, 21, 28–34). In Nigeria, family planning services are few and providers tend to ignore or discriminate against single adolescents. At least one previous termination of pregnancy was reported by 50.79% of our patients. This finding is not surprising because of the significantly low prevalence of contraceptive usage in our communities (13, 24, 28, 32) leading to unwanted pregnancies. For many girls, the risk associated with abortions are outweighed by the fears generated from an unplanned pregnancy: fears of parental disapproval, abandonment by a boyfriend or husband, financial and emotional responsibilities of childbearing, expulsion from school or inability to secure husbands if they have a child out of wedlock (21).

Although the complications that follow unsafe abortion are often multiple (2, 16, 25) as in this study, genital sepsis was the most frequent complication (88.88%) as documented in other studies (8, 16, 17, 25). While the majority of patients (87.33%) were managed by a combination of surgical and medical methods, only 12.67% of the patients were managed with medication alone. Apparently, this is because surgical complications are bound to be high since the majority of the terminations were done by quacks who know very little anatomy.

In this study, three maternal deaths were recorded (4.76%), with an abortion mortality of 256 per 100 000 deliveries and this constitutes 17.64% of maternal deaths during the period. This was within the range reported for illegal abortion in some Nigerian studies [8–35%] (1, 25, 28, 29). Septicaemia was responsible for the majority (66.66%) of deaths in this study as in earlier studies from Nigeria (16, 17, 25, 30).

CONCLUSION

It is certain that there is a high prevalence of unsafe abortions with its attendant morbidity and mortality in Nigeria (7–10, 35–37) despite the strict abortion law (31). The sociodemographic factors and the demerits of abortion obtained illegally under unsafe conditions have been amply documented in this country and also by this study (8, 10, 25, 28).

Solving the problems of unsafe abortion in Nigeria, however, requires a pragmatic approach using public health measures. Primarily through education of the girl-child and educational programmes to sensitize the community about the dangers of unsafe abortion, tackling the unmet needs for contraception, the use of better techniques for abortion where the law permits and improving provider skills, secondarily, by availability of post-abortion care. As a long term measure, rationalization of abortion law will also help to halt the stream of death from unsafe abortions.

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