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TRENDS IN MEDICAL TERMINATION OF PREGNANCY BY ADOLESCENTS IN CALABAR, CROSS RIVER STATE, NIGERIA

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ABSTRACT

Background: Most adolescents, especially those that are sexually active are aware of the risk of having unprotected sex. As a result there are many unintended pregnancies and illegal termination of pregnancies contributing to a high maternal mortality and morbidity ratio, which seems to indicate a large unmet need for contraceptive use or a deliberate attempt not to use any method for reasons known to those in need. Dilatation and curettage or other surgical methods of termination of pregnancy had been popular over the years until recently. Contraceptive use among adolescents is low in spite of high level of awareness. There are various modern method of contraception in use and currently prevalence rate for contraceptive use in Nigeria is approximately 11%–13%. This rate is very low in spite of the high rate of sexual activity and widespread awareness of the various contraceptive methods among Nigerian adolescents and youths. **Objectives:** Most adolescents who require contraceptive do not make themselves available at public health facilities for proper counseling, mostly for fear of victimization and also not to appear to be seen as a prostitute. The use of medical method of abortion is usually done in the privacy of the patient but unfortunately it may become public knowledge when it becomes incomplete or complication arises. This survey aims to ascertain the knowledge and practice of self induced medical abortion among adolescents in Calabar and the outcome of the procedure. **Methodology:** This was a questionnaire –based prospective study carried out at the University of Calabar Teaching hospital and the General Hospital, both in Calabar metropolis. The informations were obtained from adolescents who presented with bleeding per vagina and a history of attempted medical termination of pregnancy. Those who used surgical or combined methods were captured in the study but further analysis was focused on those who attempted medical abortion only. Information collected included age, source of information, method of abortion and type of medication used. **Results-** A total of 236 of the 328 female adolescents who presented with history of attempted abortion using medications were recruited into this study. Their age range was 16 to 19 years, with a mean age of 17.5 years. The respondents have all attained basic primary education and above. Some were still in school but all have heard about contraception or family planning. 124 (52.5%) admitted to using both oral and vaginal Misoprostol (Cytotec), 86 (36.4%) used Misoprostol in combination with Mifepristone while 26 (11.1%) used local herbs combined with local hot drinks (ogogoro or kie kie) mixed with Aspirin tablets. **Conclusion:** Approximately 90% of adolescents (in this study) easily access pharmacies or chemist shops (by extension in Nigeria) and purchase any drug they need including regulatory drugs without prescription, as long as they are ready to pay for it. Misoprostol has become a common drug in the hands of adolescents in procuring abortion unlike dilatation and curettage (D&C) which previously was the method of choice. Many adolescents have bled to death while concealing a termination of pregnancy because in the majority of cases the treatment they administer hardly ensures complete abortion.

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INTRODUCTION

An unexpected or unplanned pregnancy poses a major public health challenge in women of reproductive age, not only in developing countries but also in developed countries. Unplanned pregnancy not only disrupts an adolescent's educational pursuits and social life but also brings shame and

disgrace to her and the family, especially in societies where moral standards are high. Hence, majority of adolescents who conceive an unwanted pregnancy do not hesitate to seek means of terminating the pregnancy. In most cases they seek help from a senior colleague or very close confidant. In a study by Guttmacher institute in 1999, it was estimated that of the 210

million pregnancies that occur annually worldwide, about 80 million (38%) are unplanned, and 46 million (22%) end in abortion (The Alan Guttmacher Institute; 1999). More than 200 million women in developing countries would like to delay their next pregnancy or even stop bearing children altogether (Singh, 2003), but many of them still rely on traditional and less effective methods of contraception or use no method at all. Those who do not use any contraceptive method may lack access or face barriers to using contraception (Singh, 2003). These barriers include lack of awareness, lack of access, cultural factors, religion, opposition to use by partners or family members, and fear of health risks and perceived side effects of contraceptives (Carr, 2004). In Nigeria, as in most under developed or developing countries, unintended sexual intercourse, including rape, are the major cause of unwanted pregnancies, and many women with unwanted pregnancies decide to terminate it by abortion (Otoide, 2001). Since abortion remains illegal in Nigeria (unless medically recommended to save a mother's life), many abortions are carried out by unskilled persons in unsafe environment (Abiodun, 2009). The consequences of these clandestine abortions are grave and can be life-threatening, often leading to maternal death (Abiodun, 2007; Oye-Adeniran, 2004 and Oriji, 2009). Abortions account for 20%–40% of maternal deaths in Nigeria (Abiodun, 2007; Oye-Adeniran, 2004 and Oriji, 2009) and other sub-Saharan African countries (WHO, 2005).

Many factors contribute to unwanted pregnancy in Nigeria, and a very important factor is ignorance and the low level of contraceptive use (Oye-Adeniran, 2005; Okpani, 2000 and Bankole, 2009). Contraceptive prevalence rates have correlated with maternal mortality and it has been shown that countries with low contraceptive prevalence rates are also countries with very high maternal mortality ratios (Okonofua, 2003). Nigeria has one of the highest maternal mortality ratios in sub-Saharan Africa, and ranks as the country with the second highest number of maternal deaths in the world (WHO, 2005), with illegal and unsafe abortions contributing 20%–40% of about 60,000 maternal deaths that occur yearly in Nigeria (WHO, 2004). The use of modern contraceptive methods translates into the prevention of unwanted pregnancy and subsequent abortions. If contraceptive use in the population increases among Nigerian men and women who are sexually active, there will be a significant reduction in unwanted pregnancies and abortions leading to reduced maternal mortality. Research in Nigeria indicates that more than 60% of women with an unplanned pregnancy are not using any form of contraception (National Population Commission, 2004). The contraceptive prevalence rate in many developing countries rose from 9% in the 1960 to 60% in 1997, (D'Arcanques, 2002) and this has helped in reducing the total fertility rate of some developing countries (the lifetime average number of children per woman) from 6.0 in 1960 to 3.1 in 1997 (National Population Commission, 2004). The proportion of Nigerian women using modern contraceptive methods rose from 3% in 1990 to 8% in 2003. ⁽¹⁴⁾ The low rate of contraceptive use in Nigeria results in high fertility rates, particularly in the low socioeconomic class. This high fertility rate accounts for Nigeria's high maternal, infant, and neonatal mortalities, and the use of modern contraceptive methods has been reported to be very limited in most parts of Nigeria, with only 9% of Nigerian women reported to be using these in 2003 (National Population Commission, 2004 and D'Arcanques, 2002).

Several studies in the six geopolitical zones in Nigeria indicate that contraceptive knowledge and awareness, especially among female students aged 15 to 24 years, is very high. In one study done in Ilorin, (Abiodun, 2009), the methods mostly known by respondents were the condom (69.0%), the oral contraceptive pill (OCP, 38.8%), IUCD (29%), and periodic abstinence (32.9%), with most respondents being able to name at least one method of contraception. In a study done on knowledge and practice of contraception by adolescents in Calabar, 65% of respondents used emergency contraceptive pills (Postinor 2), 28.5% used condoms occasionally, while 6.5% of the sexually active adolescents do not use any method (Abeshi, 2017). Unfortunately, all of the studies that showed good knowledge and awareness did not show a strong prevalence of use of contraception (Oye-Adeniran, 2005; Okpani, 2002 and Bankole, 2009). Instead, these studies showed a high level of sexual activity corresponding with a low contraceptive prevalence.

Medical methods of procuring abortion have of recent been found to be very popular among adolescents when compared to surgical methods in Calabar. Various medications ranging from injectables, tablets, vaginal passeries, sublingual tablets and several herbal concoctions are currently in use. The medications in use are easily purchased across the counter, are less expensive and the process less painful when compared to surgical procedures. However, medical method in most cases does not achieve complete abortion in all cases and such patients still present to the health facilities because of persistent vaginal bleeding and may require further intervention. Medical methods of termination of pregnancy is usually very effective and complete when the pregnancy is not more than 8 weeks gestational age from the first day of her last menstrual period. At a gestational age of 8 weeks, most adolescents are not even aware that they are pregnant especially if that is their first pregnancy. By the time she becomes aware of the pregnancy, it has already advanced, and hence a medical method will not achieve complete abortion. Hence, majority of them using medical methods do present with bleeding per vagina which indicates incomplete termination when related to the history and confirmed with the use of ultrasound scan.

MATERIALS AND METHODS

This was a prospective questionnaire –based and direct interview study carried out at the University of Calabar Teaching hospital and the General Hospital, both in Calabar metropolis. The informations were obtained from adolescents who presented with bleeding per vagina and a history of absence of menses and attempted medical termination of pregnancy. Those who used surgical or combined methods were captured in this study but were excluded from the analysis. Informations collected included age, source of information, method of abortion and type of medication used. For all the clients recruited into this study, a serum pregnancy test and pelvic ultrasound scan was done before manual vacuum aspiration (MVA) and other treatments were carried out. This was done to exclude other causes of bleeding per vagina. This study was carried over a 1 year period (November, 2017–October, 2018). The management of the patients and collation of data were by a team of medical personnel. The information obtained was analyzed using frequencies and percentages.

RESULTS

A total of 328 adolescents presented at the two health facilities during the period of study. Of this number, 304(92.7%) came with a positive pregnancy test result, 182(55.5%) came with an accompanying pelvic ultrasound scan result indicating incomplete abortion. A serum pregnancy test and pelvic ultrasound scan was requested from those who had not done any of the investigations. 44(13.4%) had attempted surgical termination, 48(14.6%) had combined medical and surgical methods, while 236(72.0%) took various forms of medications in attempt to terminate the pregnancy. The commonest drug used was Misoprostol tablets which is commonly available in 200microgram forms. The drug is popularly known among the adolescents as “Cytotec”. Respondents in this study use as much as 800 microgram intra vaginally or same dose is taken orally or in combination, that is, both vaginally and orally. Another drug used is a combination of Misoprostol-Mifepristone which we discovered are prescribed by medical professionals to achieve termination of pregnancy. It is marketed as “Mariprist” and is also administered as in Misoprostol by respondents. Of the 236 adolescents who used medical methods, 124(52.5%) used Misoprostol only, 86(36.4%) used combination of Misoprostol and Mifepristone while 26(11.1%) used herbs and local alcohol (ogogoro or kie kie) with 300 to 600mg tablets of Aspirin.

Table 1. Age distribution of presenting adolescents using medical methods

Age distribution	Frequency(n)	Percentage (%)
16	48	20.3
17	52	22.1
18	86	36.4
19	50	21.2
	236	100

Table 2. Methods used for abortion by all respondents

Procedure	Frequency(n)	Percentage (%)
Surgical	44	13.4
Medical	236	72.0
Combined	48	14.6
	328	100

Table 3. Sources of information/ drugs for medical abortion

Age	Peer group	Chemist provider	Aided by a medical personnel	Provided by the male partner
16	8 (16.7%)	11 (22.9%)	6 (12.5%)	23 (47.9%)
17	22 (42.3%)	18 (34.6%)	7 (13.5%)	5 (9.6%)
18	32 (37.2%)	14 (16.3%)	21 (24.4%)	19 (22.1%)
19	28 (56.0%)	8 (16.0%)	8 (16.0%)	6 (12.0%)
	38.0%	22.5%	16.6%	22.9%

Table 4. drugs used in medical methods of abortion by respondents

Medical methods	Frequency (n)	Percentage (%)
Misoprostol only	124	52.5
Misoprostol and Mifepristone	86	36.4
Alcohol and Aspirin	18	7.6
Local herbs	8	3.5

DISCUSSION

Millions of women worldwide have safely terminated their pregnancies with medication since mifepristone—or RU 486—

was first introduced in the late 1980s. Research in the past two decades has identified several highly effective regimens for early medical abortion (Gynuity Health Projects, 2009). Whether taken in a health center or at home by women themselves, regimens using pills offer an option that many women prefer to surgical abortion procedures such as manual vacuum aspiration or dilation and curettage (D&C). Majority of adolescents who have unprotected sexual exposure and become pregnant seek for help outside a health facility.. They mostly patronize over- the- counter drug providers who are readily willing to sell their drugs even without having knowledge of the pharmacological properties and usage or effect of the drugs. At the moment there are no drug purchase regulatory laws in Nigeria or where such laws exist, it is not enforced. Since mifepristone is a registered abortion drug, its sale and use are not permitted in most countries with restrictive abortion laws. In contrast to Misoprostol however, which was produced as an anti-ulcer medication, and was later discovered to have uterotonic effects. The drug is readily available and is registered under various trade names worldwide, (Faúndes, 2007 and Maria, 2009). Research has found that Misoprostol alone is about 75-85 percent successful in inducing abortion in the first trimester when used as recommended. Although less effective alone than when combined with mifepristone, Misoprostol offers a safe and accessible alternative for women. About 20 percent of all abortions taking place in the U.S. today are performed on adolescents (Koonin, 1996). Adolescent abortion has been linked to a number of physical and psychological problems, including drug and alcohol abuse, (Amaro, 1989), suicide attempts and suicidal ideation (Garfinkel, 1986), and other self-destructive behaviors. The average age of sexual debut in many of the studies ranged between 12 and 20 years, with a mean age of 16 ± 1.2 years (Oye-Adeniran, 2005; Okpani, 2000 and Bankole, 2009). The consequence of high sexual activity and low contraceptive use is an increased frequency of unplanned pregnancies and subsequent induced abortions or unplanned deliveries.

Studies have also shown that the major factors in pregnancy decision making among adolescents are the attitude of the parents, the baby's father, and her peers; the personality of the adolescent herself; and the cultural and public policy attitudes toward abortion by which she is surrounded (Garfinkel, 1986). Compared to older women, adolescents are more likely to abort any pregnancy because of pressure from their parents or sexual partners (Strahan, 1995), putting them at higher risk of immediate and long term complications and adverse emotional and psychological effects after abortion. Adolescents are more likely to report having wanted to keep the baby, higher levels of feeling misinformed in pre-abortion counseling, less satisfaction with abortion services and greater post-abortion stress, ⁽²⁴⁾ where abortion services are legal. In Nigeria where abortion laws are restricted, the adolescents seeking for abortion are usually helpless and easily fall prey in the hands of quacks and unsafe procedures. They consider the abortion procedure itself to be painful, stressful and associated with feelings of guilt, depression and a sense of isolation (Biro, 1986). Researchers have also found that reports of more severe pain during abortion among younger women are linked to greater levels of anxiety and fear prior to the abortion (Belanger, 1979). Table 1 shows the age distribution of adolescents recruited in this study. The mean age of respondents was 17.5. Majority of them were 18years old (36.4%). This group consisted mainly of secondary school leavers, some of them waiting to gain admission into tertiary

institution, while others were seeking for jobs and still depended on their parents or relatives. The average age of sexual debut in many of the studies ranged between 12 and 20 years, with a mean age of 16 ± 1.2 years (Oye-Adeniran, 2005 and Okpani, 2000 and Bankole, 2009). It was observed in this study that following the week long street party and carnival show in Calabar in December, lots of adolescents present to hospitals and clinics for termination of pregnancy. Since abortion is legally not allowed in Nigeria currently, majority of those seeking to terminate pregnancy end up in the hands of quacks. Adolescents mostly rely on their peers (38%) to get information on how to terminate a pregnancy. The male partner provides the medication in 22.9% of cases while drugs are purchased over the counter in 22.4% of cases. Information is gotten from health workers in 16.6% of cases. Table 4 shows the common forms of medical abortion in Calabar. A total of 328 adolescents presented in the two hospitals with history of termination of pregnancy. 236 (72.0%) used medical methods while 92 (28%) had surgical method of termination, presenting with incomplete abortions. The reason given for choosing medical method include – less expensive, not painful, non traumatic to the vagina, cervix or surrounding structures, some degree of privacy and non invasive, though unmindful of the fact that the procedure may not be complete and may require evacuation in some cases. The use of Misoprostol (Cytotec) is more popular 124 (52.2%), followed by use of combination of Misoprostol-Mifepristone 86 (36.4%). Others used alcohol combined with Aspirin tablets, while others use herbal products which may have uterotonic effect on the uterus and provoke bleeding per vagina. Medical termination of pregnancy is usually suitable for first trimester pregnancies less than 49 days (7 weeks) from the first day of the last menstrual period. The lack of sexual education in our schools' curriculum is a major contributory factor in adolescence not been adequately informed about sexual exploits and ensuring outcome. The mention of sex even at homes is like a taboo in many African societies. The churches, mosques and other spiritual organizations have not helped the adolescence in any way; hence they are at the mercy of peers, friends and quacks in the majority of cases.

Conclusion

The Centers for Disease Control (CDC) has reported that 30 percent of teenage abortions occur at or after 13 weeks gestation, compared to only 12 percent of abortions overall⁽²⁷⁾ The high rate of late-term abortions among teens is a symptom of how they feel trapped into abortions that they cannot evade. Misoprostol is typically sold in pharmacies in tablets of 200 mcg. Four tablets are recommended to initiate an early abortion, and four (or, rarely, eight) more may be required for its completion. It is best to use Misoprostol within seven to eight weeks since the last menstruation; that is, fewer than 56 days counting from the first day of the last regular period. The earlier in pregnancy Misoprostol is administered the better, because it is safer, more effective, and less painful. Misoprostol can be used later in pregnancy but the risks of complications are higher. Late presentation was also observed in this study. The average gestational age at which majority of the respondents in this study initiates the process of terminating the pregnancy is 12 weeks, that is, three months. The introduction of sex education in our schools and liberalizing abortion laws and effective contraceptive usage will help rescue these vulnerable adolescents from the hands of quacks, thus protecting them from the immediate and long

term complications of abortions, irrespective of the method used. Nongovernmental organizations (NGOs) should not only restrict their advocacy on gender equality and HIV/AIDS control but should be encouraged to introduce sex education and abortion related issues in their programs.

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