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Disclosure, Contraceptive Practices, Reproductive Desires and Outcomes of Abortion, at Mbarara Regional Referral Hospital

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Abstract
Background: Globally, abortion mortality accounts for at least 13% of all maternal mortality. Unsafe abortion procedures, untrained abortion providers, restrictive abortion laws and high mortality and morbidity from abortion tend to occur together. Preventing mortality and morbidity from abortion constitutes an important part of safe motherhood initiatives. **Methods:** This was a cross sectional study. The study period was from August to December 2015. Women with missed abortion and threatened abortion were excluded. The outcome variables included treatment outcomes, contraceptive practices, reproductive desires and disclosure. **Results:** There were a total of 40 respondents. Prevalence of knowledge of contraceptives was 87.5%, though 95% lacked knowledge of ECs. The ended pregnancy was unintended in majority of respondents (62.5%). Half of the abortions 50% were induced. Of the eight induced abortions (62.5%) were done by health workers, (25%) by a traditional healer, and 12.5% by a relative. The methods used to induce the abortion included medical methods (25%) =5, surgical (60%) n=12, mechanical local (5%) n=1, herbal (10%) n=2. Complications of abortion occurred in 20%. Women who had intended pregnancy were more willing to get more children as compared to women who had had unintended pregnancy, 60 % and 54 % respectively. More complications occurred among induced abortions as compared to spontaneous abortion37.5% and 9.7% respectively. Eight women (20%) volunteered to have induced abortion. **Conclusion:** There is low knowledge of ECs among women undergoing PAC at MRRH with majority having unintended pregnancy. Half of the abortions are induced. Providers of abortion include health workers, a traditional healer, and a relative. The methods used included medical method, mechanical local and, herbal Complications of abortion occurred in 20%. , and these included septic abortion, perforated viscera and anaemia. Women who had intended pregnancy were more willing to get more children as compared to women who had had unintended pregnancy. More complications occurred among induced abortions as compared to spontaneous abortion. Voluntary disclosure was in 40% of all women who had induced abortion. **Recommendations:** There is need for expansion of contraceptive services in order to reduce the burden of unintended pregnancies. Emergency contraception should be made more available. All abortions should regard and managed as induced abortion as the rate of voluntary disclosure is low (40%).
Keywords: Contraceptive, Practice, Desires, Abortion.

BACKGROUND

Globally, abortion mortality accounts for at least 13% of all maternal mortality. Unsafe abortion procedures, untrained abortion providers, restrictive abortion laws and high mortality and morbidity from abortion tend to occur together. Preventing mortality and morbidity from abortion constitutes an important part of safe motherhood initiatives. In order to be effective, public health measures must take into account the reasons why women have abortions, the kind of abortion services required and at what stages of pregnancy, the types of abortion service providers needed, and training, cost and counseling issues. The transition from unsafe to safe abortions demands, changes at national policy level; abortion training for service providers and the provision of services at the appropriate primary level health service delivery points; and ensuring that women access these services instead of those of untrained providers. Public awareness that abortion services are available is a crucial element of this transition, particularly among adolescent and single women, who tend to have less access to reproductive health services generally(Berer, 2000)

Unsafe sex is the second most important risk factor for disability and death in the world's poorest communities and the ninth most important in developed countries. Cheap effective interventions are available to prevent unintended pregnancy, provide safe abortions, help women safely through pregnancy and child birth, and prevent and treat sexually transmitted infections. Yet every year, more than 120 million couples have an unmet need for contraception, 80 million women have unintended pregnancies (45 million of which end in abortion), more than half a million women die from complications associated with pregnancy, childbirth, and the postpartum period. Sexual and reproductive ill-health mostly affects women and adolescents. Women are disempowered in much of the developing world and adolescents, arguably, are disempowered everywhere. Sexual and reproductive health services are absent or of poor quality and underused in many countries because discussion of issues such as sexual intercourse and sexuality make people feel uncomfortable. The increasing

influence of conservative political, religious, and cultural forces around the world threatens to undermine progress made since 1994, and arguably provides the best example of the detrimental intrusion of politics into public health.(Glasier et al., 2006)

In 2010 a study was done in Uganda to determine the cost of abortion post abortion care. Thirty-nine public and private health facilities were sampled representing three levels of health care, and data were collected on drugs, supplies, material, personnel time and out-of-pocket expenses. In addition, direct non-medical costs in the form of overhead and capital costs were also measured. Results show that the average annual PAC cost per client, across five types of abortion complications, was $131. The total cost of PAC nationally, including direct non-medical costs, was estimated to be $13.9 million per year. Satisfying all demand for PAC would raise the national cost to $20.8 million per year. This shows that PAC consumes a substantial portion of the total expenditure in reproductive health in Uganda. Investing more resources in family planning programs to prevent unwanted and mistimed pregnancies would help reduce health systems costs(Vlassoff et al., 2014)

Abortion is illegal in Uganda except to save the life of the woman. Nevertheless, the practice is quite common: about 300,000 induced abortions occur annually among Ugandan women aged 15–49 years and a large proportion of these women require treatment for post-abortion complications. In the male-dominant culture of Uganda, where men control most of the financial resources, men play a critical part in determining whether women receive a safe abortion or appropriate treatment if they experience abortion complications. A study conducted to examine men's roles in determining women's access to a safer abortion and post-abortion care. It draws on in-depth interviews carried out in 2003 with 61 women aged 18–60 and 21 men aged 20–50 from Kampala and Mbarara, Uganda. Respondents' descriptions of men's involvement in women's abortion care agreed that men's stated attitudes about abortion often prevented women from involving them in either the abortion or post-abortion care. Most men believe that if a woman is having an abortion, it must be because she is pregnant with another man's child, although this does not correspond with women's reasons for having an abortion – a critical disjuncture revealed by the data between men's perceptions of, and women's realities regarding, reasons for seeking an abortion. If the woman does experience post-abortion complications, the prevailing attitude among men in the sample was that they cannot support a woman in such a situation seeking care because if it had been his child, she would not have had a covert abortion. Since money is critical to accessing appropriate care, without men's support, women seeking an abortion may not be able to access safer abortion options and if they experience complications, they may delay care-seeking or may not obtain care at all. Barriers to involving men in abortion decision-making endanger women's health and possibly their lives(Moore et al., 2011)

Data of abortion incidence and trends are needed to monitor progress toward improvement of maternal health and access to family planning. To date, estimates of safe and unsafe abortion worldwide have only been made for 1995 and 2003.Using the standard WHO definition of unsafe abortions. Safe abortion estimates were based largely on official statistics and nationally representative surveys. Unsafe abortion estimates were based primarily on information from published studies, hospital records, and surveys of women. Additional sources and systematic approaches to make corrections and projections as needed where data were misreported, incomplete, or from earlier years were used. Trends in abortion incidence using rates developed for 1995, 2003, and 2008 with the same methodology were assessed. Linear regression models to explore the association of the legal status of abortion with the abortion rate across sub regions of the world in 2008 were used. The global abortion rate was stable between 2003 and 2008, with rates of 29 and 28 abortions per 1000 women aged 15–44 years, respectively, following a period of decline from 35 abortions per 1000 women in 1995. The average annual percent change in the rate was nearly 2·4% between 1995 and 2003 and 0·3% between 2003 and 2008. Worldwide, 49% of abortions were unsafe in 2008, compared to 44% in 1995. About one in five pregnancies ended in abortion in 2008. The abortion rate was lower in sub regions where more women live under liberal abortion laws ($p<0·05$). The substantial decline in the abortion rate observed earlier has stalled, and the proportion of all abortions that are unsafe has increased. Restrictive abortion laws are not associated with lower abortion rates. Measures to reduce the incidence of unintended pregnancy and unsafe abortion, including investments in family planning services and safe abortion care, are crucial steps toward achieving the Millennium Development Goals.(Sedgh et al., 2012)

Although Uganda's law permits induced abortion only to save a woman's life, many women obtain abortions, often under unhygienic conditions. Small-scale studies suggest that unsafe abortion is an important health problem in Uganda, but no national quantitative studies of abortion exist. A nationally representative survey of 313 health facilities that treat women who have post abortion complications and a survey of 53 professionals who are knowledgeable about the conditions of abortion provision in Uganda were conducted in 2003. Indirect estimation techniques were applied to the data to calculate the number of induced abortions performed annually. Abortion rates, abortion ratios and unintended pregnancy rates were calculated for the nation and its four major regions. Data on contraceptive use and unmet need were obtained from Demographic and Health Surveys. Each year, an estimated 297,000 induced abortions are performed in Uganda, and nearly

85,000 women are treated for complications. Abortions occur at a rate of 54 per 1,000 women aged 15-49 and account for one in five pregnancies. The abortion rate is higher than average in the Central region (62 per 1,000 women), the country's most urban and economically developed region. It is also very high in the Northern region (70 per 1,000). Nationally, about half of pregnancies are unintended; 51% of married women aged 15-49 and 12% of their unmarried counterparts have an unmet need for effective contraceptives. Unsafe abortion exacts a heavy toll on women in Uganda. To reduce unplanned pregnancy and unsafe abortion, and to improve women's health, increased access to contraceptive services is needed for all women(Singh et al., 2005)

Induced abortion is significant independent risk factors for breast cancer, regardless of parity or timing of abortion relative to the first term pregnancy. Although the increase in risk was relatively low, the high incidence of both breast cancer and induced abortion suggest a substantial impact of thousands of excess cases per year currently, and a potentially much greater impact in the next century, as the first cohort of women exposed to legal induced abortion continues to age.(Brind et al., 1996)

In countries Ghana, where the law restricts elective induced abortion, Muslim women have decreased odds of obtaining an abortion. Women who lived in urban areas, who are educated or who have four or more children have increased odds of obtaining an abortion. Women who are self-employed have greater odds of obtaining an abortion than those who are employed by someone else. Ghana's abortion law does nothing to prevent many induced abortions from occurring. However, few Ghanaian women who seek abortions obtain them from physicians, and most appear to induce abortions themselves, often in collaboration with pharmacists.(Ahiadeke, 2001)

In Ethiopia; in 2005, the penal code was revised to broaden the indications under which induced abortion is legal. It was important to measure the incidence of legal and illegal induced abortion after the change in the law. A nationally representative survey of a sample of 347 health facilities that provide post abortion or safe abortion services and a survey of 80 professionals knowledgeable about abortion service provision were conducted in Ethiopia in 2007–2008. Indirect estimation techniques were applied to calculate the incidence of induced abortion. Abortion rates, abortion ratios and unintended pregnancy rates were calculated for the nation and for major regions. In 2008, an estimated 382,000 induced abortions were performed in Ethiopia, and 52,600 women were treated for complications of such abortions. There were an estimated 103,000 legal procedures in health facilities nationwide—27% of all abortions. Nationally, the annual abortion rate was 23 per 1,000 women aged 15–44, and the abortion ratio was 13 per 100 live births. The abortion rate in Addis Ababa (49 per 1,000 women) was twice the national level. Overall, about 42% of pregnancies were unintended, and the unintended pregnancy rate was 101 per 1,000 women. It was concluded that unsafe abortion is still common and exacts a heavy toll on women in Ethiopia. To reduce rates of unplanned pregnancy and unsafe abortion, increased access to high-quality contraceptive care and safe abortion services is needed (Singh et al., 2010)

It is well recognized that unsafe abortions have significant implications for women's physical health; however, women's perceptions and experiences with abortion-related stigma and disclosure about abortion are not well understood. Focus groups and semi-structured in-depth interviews were conducted with women and men in Mexico, Nigeria, Pakistan, Peru and the United States (USA) in 2006. The stigma of abortion was perceived similarly in both legally liberal and restrictive settings although it was more evident in countries where abortion is highly restricted. Personal accounts of experienced stigma were limited, although participants cited numerous social consequences of having an abortion. Abortion-related stigma played an important role in disclosure of individual abortion behavior(Shellenberg et al., 2011)

A study was conducted to estimate the rate at which women disclose abortion to their partners and examine the association between domestic violence and partner disclosure. A cross-sectional cohort study was performed on women presenting for elective termination of pregnancy to a single clinic in Houston, Texas. Subjects were offered an anonymous, self-administered questionnaire. The 15-question survey addressed disclosure of abortion to the partner, reasons for nondisclosure if applicable, and physical and sexual abuse using a modified Abuse Assessment Screen. Of 960 patients, 85.2% completed the survey, for a final sample size of 818. Overall, 139 (17.2%) of subjects chose not to disclose the abortions to their partners, and 14% of patients reported abuse within the past year. Physical or sexual abuse or both was twice as common among nondisclosure (23.7% compared with 12.0%, $P = .001$). Among nondisclosures, 63 (45.3%) said the relationship with the partner had no future, 52 (37.4%) did not feel obliged to notify their partners, 29 (20.9%) said the partner would oppose the abortion, and 11 (7.9%) said disclosure would result in physical harm. In this urban, racially and socioeconomically diverse population, 17.2% of women concealed pregnancy terminations from their partners. Although relationship instability and personal choice were cited as the most frequent reasons for nondisclosure, the rate of domestic abuse was twice as high in this group and may have adversely affected open communication. Of greatest concern, a subset of nondisclosures reported the direct fear of personal harm as the primary reason for nondisclosure.(Woo et al., 2005)

In societies with restrictive abortion laws, clandestine induced abortion by unskilled personnel results in needless and very high mortality and morbidity, tremendous strain on limited health resources, and inexcusable

human suffering. Sepsis, hemorrhage, genital tract trauma, and related ill health and sterility, could be prevented by legalizing abortion, making appropriate sex education and contraceptive services available and training physicians and non physicians in uterine vacuum aspiration(Ladipo, 1989)

The Commonwealth Regional Health Community Secretariat undertook a study in 1994 to document the magnitude of abortion complications in Commonwealth member countries. The literature review findings indicated a significant public health problem in the region, as measured by a high proportion of incomplete abortion patients among all hospital gynecology admissions. The most common complications of unsafe abortion seen at health facilities were haemorrhage and sepsis. Studies on the use of manual vacuum aspiration for treating abortion complications found shorter lengths of hospital stay (and thus, lower resource costs) and a reduced need for a repeat evacuation. Very few articles focused exclusively on the cost of treating abortion complications, but authors agreed that it consumes a disproportionate amount of hospital resources. Studies on the role of men in supporting a woman's decision to abort or use contraception were similarly lacking. Articles on contraceptive behavior and abortion reported that almost all patients suffering from abortion complications had not used an effective, or any, method of contraception prior to becoming pregnant, especially among the adolescent population; studies on post-abortion contraception are virtually nonexistent. Almost all articles on the legal aspect of abortion recommended law reform to reflect a public health, rather than a criminal, orientation(Benson et al., 1996)

Each year, thousands of Nigerian women have unintended pregnancies that end in illegal abortion. Many such procedures occur under unsafe conditions, contributing to maternal morbidity and mortality. In a 2002-2003 survey of women and their providers in 33 hospitals in eight states across Nigeria, 2,093 patients were identified as being treated for complications of abortion or miscarriage or seeking an abortion. Women's abortion experiences and the health consequences and associated costs were examined through bivariate analysis. Multivariate analysis was used to examine the characteristics of women by type of pregnancy loss and to compare characteristics among three groups of women who had induced abortions in differing circumstances. Among women admitted for abortion-related reasons, 36% had attempted to end the pregnancy before coming to the hospital (including 24% with and 12% without serious complications), 33% obtained an induced abortion at the facility (notwithstanding the country's restrictive law) without having made a prior abortion attempt and 32% were treated for complications from a miscarriage. Of women with serious complications, 24% had sepsis, 2 7 % pelvic infection and 11 % instrumental injury; 22% required blood transfusion and 7.0% needed abdominal surgery. The women in this group were poorer and later in gestation than those who sought abortions directly from hospitals. They paid more for treatment (about 13,900 naira) than those who went directly to the hospital for an abortion (3,800 naira) or those treated for miscarriage (5,100 naira). It was concluded that policy and program interventions are needed to improve access to contraceptive services and post abortion care in order to reduce abortion-related morbidity and mortality(Henshaw et al., 2008)

Family planning is hailed as one of the great public health achievements of the last century, and worldwide acceptance has risen to three-fifths of exposed couples. In many countries, however, uptake of modern contraception is constrained by limited access and weak service delivery, and the burden of unintended pregnancy is still large. A review was done focusing on family planning's efficacy in preventing unintended pregnancies and their health burden. The authors first describe an epidemiologic framework for reproductive behavior and pregnancy intendedness and used it to guide the review of 21 recent, individual-level studies of pregnancy intentions, health outcomes, and contraception. They then reviewed population-level studies of family planning's relation to reproductive, maternal, and newborn health benefits. Family planning was documented to prevent mother-child transmission of human immunodeficiency virus, contributed to birth spacing, lower infant mortality risk, and reduced the number of abortions, especially unsafe ones. It is also shown to significantly lower maternal mortality and maternal morbidity associated with unintended pregnancy. It was recommended that , a new generation of research was needed to investigate the modest correlation between unintended pregnancy and contraceptive use rates to derive the full health benefits of a proven and cost-effective reproductive technology.(Tsui et al., 2010)

A single 10 mg dose of mifepristone, and two 0·75 mg doses of levonorgestrel 12 h apart, are effective for emergency contraception. Because no studies had compared the efficacies of both compounds, or investigated a single dose of 1·5 mg levonorgestrel, a three-arm trial was undertaken. A randomized, double-blind trial was done in 15 family-planning clinics in 10 countries. Randomization was assigned to 4136 healthy women with regular menstrual cycles, who requested emergency contraception within 120 h of one unprotected coitus, to one of three regimens: 10 mg single dose mifepristone; 1·5 mg single-dose levonorgestrel; or two doses of 0·75 mg levonorgestrel given 12 h apart. The primary outcome was unintended pregnancy; other outcomes were side-effects and timing of next menstruation. Analysis was by intention to treat. Of 4071 women with known outcome, pregnancy rates were 1·5% (21/1359) in those given mifepristone, 1·5% (20/1356) in those assigned single-dose levonorgestrel, and 1·8% (24/1356) in women assigned two-dose levonorgestrel. These proportions did not differ significantly (p=0·83). The relative risk of pregnancy for single-dose

levonorgestrel compared with two-dose levonorgestrel was 0·83 (95% Cl 0·46–1·50), and that for levonorgestrel (the two regimens combined) compared with mifepristone, 1·05 (0·63–1·76). Side-effects were mild and did not differ greatly between groups, and most women menstruated within 2 days of the expected date. Women who took levonorgestrel had earlier menses than did those who took mifepristone. The three regimens studied are very efficacious for emergency contraception and prevent a high proportion of pregnancies if taken within 5 days of unprotected coitus. Mifepristone and levonorgestrel do not differ in efficacy. A 1·5 mg single levonorgestrel dose can substitute two 0·75 mg doses 12 h apart.(von Hertzen et al., 2002). The main objective of this study was to determine the outcomes, contraceptive practices, reproductive desires and proportion of women who voluntarily disclose induction abortion, at Mbarara Regional Referral Hospital, Southwestern Uganda. We specifically wanted to know the proportion of women who would volunteer information of about having induced the abortion, including the methods used. The hypothesis was that women presenting with abortion ended with good outcomes, had good practice of contraceptives, had intentions of getting more children and voluntarily disclosed information in case of induced of abortion.

METHODS AND MATERIALS

Study design:

This was a cross sectional study of all women who presented to the gynaecological ward for post abortion care(PAC).The study period was for four months starting from August to December 2015.

Study site:

The study was conducted at gynecological ward of Mbarara Regional Referral Hospital(MRRH).The hospital is located in Mbarara municipality which is 226 km (165 miles) south of Kampala, the capital city of Uganda. Mbarara Regional Referral Hospital is a 300 bed public hospital that serves as the referral hospital for ten districts in southwestern Uganda, with a population of about 4million people (Atukunda et al 2014). It is a teaching hospital for Mbarara University of Science and Technology, Faculty of Medicine and visiting students from other institutions. The hospital has obstetrics and gynecology department, with a maternity wing that conducts approximately 10,000 deliveries per year. The facility has a number of specialists who offer specialized services including provision of comprehensive obstetric acre. This facility was thus suited to carry out this research.

Study population:

The study population included all women who presented to the gynecological ward.

Inclusion criteria:

The inclusion criterion was all women who presented to the gynecological ward with complete, incomplete and inevitable abortion for post abortion care irrespective of the gestation age.

Exclusion criteria:

The exclusion criterion was women with missed abortion and threatened abortion.

Outcome variables:

The outcome variables included treatment outcomes, contraceptive practices, reproductive desires and proportion of women who fail to voluntarily disclose in case of induced of abortion.

Independent variables:

Data was collected on, socio-demographic factors, obstetric factors, medical factors and gestation age as independent variables.

Sample size estimation:

A sample size of 40 women who presented with abortion in the study period was used.

Sampling method:

Consecutive sampling was used to recruit eligible participants. Consented mothers were interviewed using a pretested standard questionnaire in the language they best understand. The principal investigator collected the data assisted by 2 trained research assistants at the level of a midwife. The questionnaire captured information including patient's socio-demographic characteristics, obstetric, medical factors and last normal menstrual period which was used for calculation of weeks of gestation.

Statistical data analysis:

The data was entered in an EXCEL spreadsheet and analyzed using SPSS statistical software, version 20 (SPSS, Chicago, IL, USA). Cross tabulations were conducted to obtain descriptive statistics which were presented as frequencies and percentages.

Ethical considerations:

Approval was sought from the department of Obstetrics and Gynecology Mbarara University of science and technology, Mbarara Regional Referral Hospital, Faculty of Medicine Research Committee and Mbarara University Institutional Research Board (IRB).

The participants' consent was sought and obtained for participation into the study using a consent form which was translated into Runyankole (the indigenous language). Enrolment was voluntary and participants could

withdraw at any time without any consequences to the patient.

RESULTS:

There were a total of 40 respondents; the age range was 17 to 40 years. Most of the respondents (75%) were in age group between 20-40 years, were from Mbarara district (65%), with index abortion (60%) and had only primary education (55%). Majorities were either married or cohabiting (80%), were rural house wives (40%) and HIV Negative (52.5%). The respondents' practices about contraceptives were as follows, had used a contraceptive before the current abortion(52.5%), did not report history of contraceptive failure(70.0%), had knowledge of contraceptives(87.5%), did not have knowledge of long acting contraceptives (55.0%), had never used LAC(87.5%), did not have knowledge of ECs(95%).

The ended pregnancy was unintended in majority of respondents (62.5%). Half of abortions (50%) were spontaneous and (50%) were induced. However only 8(20%) voluntarily reported that the abortion had been induced. Out of eight induced abortions (62.5%) were done by health workers, (25%) were performed by a traditional healer, while (12.5%) was done by a relative. The methods used to induce the abortion included medical methods (25%) =5, surgical (60%) n=12, mechanical local (5%) n=1, herbal (10%) n=2.

Complications of abortion occurred in 20%, while 80.0% of women did not get complications. Majority of the women 97.5% were managed by evacuation and survived with minor complications, only one woman 2.5 %(n=1) was treated by Laparotomy. The most common complications 5 out of 8 occurred in women between 20 and 30 years. Of the 8 women who developed complications 5 were from rural areas and the complications were as follows septic abortion=3, perforated viscera=1 and anaemia. Complications were more common in women who had index abortion (4 out of 8), compared to those with more than one abortion. The only woman with perforated viscera was a student. All women who developed complications 8 out of 8 had no knowledge of ECs. Five out of eight women who developed complications (4 with sepsis and one with perforation had unintended pregnancy), while 3 women who had intended pregnancy developed complications one case of sepsis and 2 cases of anaemia.

Willingness to get more children was as follows, 55% were willing to get more children after the treatment, while 45% were not interested in more children after treatment. All women below 19 years 3 out of 3 were not willing to have children, women between 20 and 30 years(81%) were more interested in getting more children after treatment, while women between 31 and 40 years(90%) were less interested in more children. Surprising the only woman who was between 41-50years was still interested in getting more children. Willingness to have more children declined after the fifth pregnancy, decreased with number of abortions and declined with gestation age at which abortion occurred. The reproductive desires among HIV positive women was equal to that of HIV negative women 33.3% (1 out of 3) and 33.3% (7 out of 21) respectively. Women who had intended pregnancy were more willing to get more children as compared to women who had had unintended pregnancy, 60 %(9 out of 15) and 54 % (13 out of 24).

Table: 1, Population Characteristics:

Characteristic	Frequency (%)
Age in years	
15-19	6(15.0)
20-30	22(55.0)
31+	11(27.5)
Missing	1(2.5)
District	
Mbarara	26(65.0)
Isingiro	06(15.0)
Other	08(20.0)
Education	
None	2(5.0)
Primary	22(55.0)
Secondary	11(27.5)
Tertiary	5(12.5)
Marital status	
Single	8(20.0)
Married /cohabiting	32(80.0)
Occupation	
House wife	47(57.5)
Business woman	10(25.0)
Professional	1(2.5)
Student	4(10.0)
Not employed	2(5.0)
HIV serostatus	
Negative	21(52.5)
Positive	3(7.5)
Missing	16(40.0)

Table: 2, Obstetric /Contraceptive Characteristics of Respondents:

CHARACTERISTICS	FREQ (%)
Gavidity	
Prime gravida	9(22.5)
Multigravida	31(77.5)
Total abortions	
1	24(60.0)
2	7(17.5)
3	7(17.5)
4	1(2.5)
Missing	1(2.5)
History of use of contraceptives	
No	21(52.5)
Yes	19(47.5)
Contraceptive failure	
No	28(70.0)
Yes	12(30.0)
Contraceptive knowledge	
No	5(12.5)
Yes	35(87.5)
Knowledge of LAC	
Yes	18(45.0)
No	22(55.0)
Use of LAC	
No	35(87.5)
Yes	5(12.5)
Knowledge of ECs	
Yes	2(5.0)
No	38(95.0)
Intention of ended pregnancy	
Intended	15(37.5)
Unintended	25(62.5)

Table: 3, Outcomes

CHARACTERISTIC	FREQ (%)
Type of abortion	
Spontaneous	32(80.0)
Induced	8(20.0)
Provider of abortion	
Traditional	3(7.5)
Health provider	5(12.5)
Spontaneous	32(80.0)
Method of induced abortion	
Medical	5(12.5)
Surgical(MVA/D+C)	12(30.0)
Mechanical	1(2.5)
Herbal	2(5.0)
Spontaneous	20(50.0)
Abortion complication	
Septic abortion	5(12.5)
Perforation	1(2.5)
None	31(77.7)
Anaemia	2(5.0)
Missing	1(2.5)
Interventions done	
Evacuation	39(97.5)
Laparotomy	1(2.5)
Maternal outcome	
Alive	39(97.5)
Missing	1(2.5)
Future reproductive desires	
Yes	22(55.0)
No	17(42.5)
Missing	1(2.5)

Table: 5, Reproductive health desires and associated factors.

Variable	Reproductive health desires		Odds ratio(95%CI)	P-Value
	Willing	Not willing		
Age				
15-19	3	3		
20-30	17	4	-	0.002
31-40	1	9		
41-50	1	0		
Gestation age at abortion				
<12	11	5	-	0.466
12-20	7	6		
21-28	4	5		
Marital status				
Single	5	2	2.206(0.372-13.090)	0.376
Married	17	15		
HIV			1.000(0.077-13.016)	
Neg	14	7		1.000
Pos	2	1		
Use of contraceptives			0.583(0.162-2.2097)	0.408
No	10	10		
Yes	12	7		
Contraceptive failure			0.583(0.130-2.223)	0.389
No	14	13		
Yes	8	4		
Intention of ended pregnancy			1.269(0.343-4.696)	0.721
Intended	9	6		
Unintended	13	11		
Type of abortion				
Spontaneous	17	15	0.453`(0.76-2.690)	0.376
Induced	5	2		

Fig: 1, Reproductive health desires with increasing number of abortions

Fig: 1, Willingness to get more children vs. number of abortions

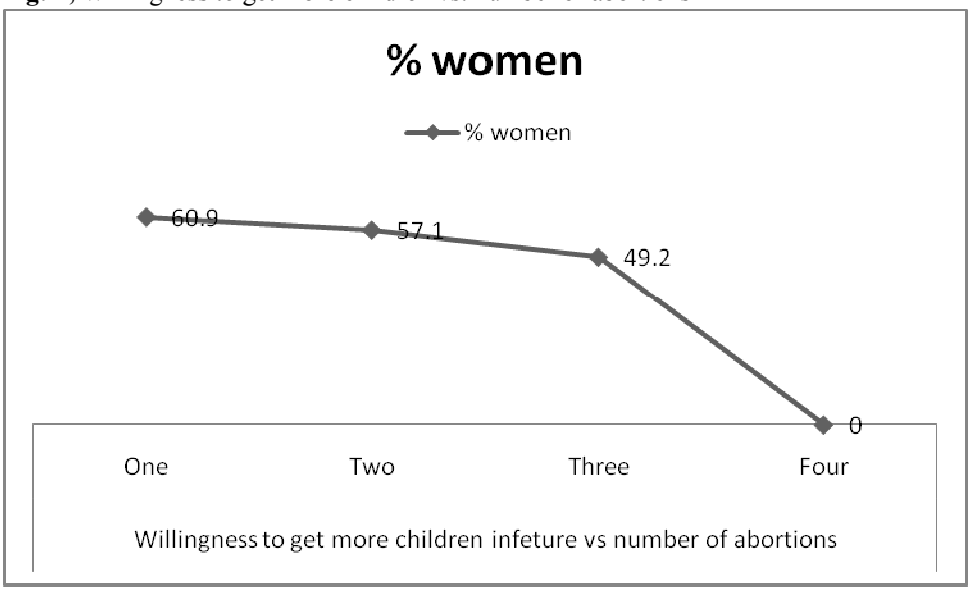
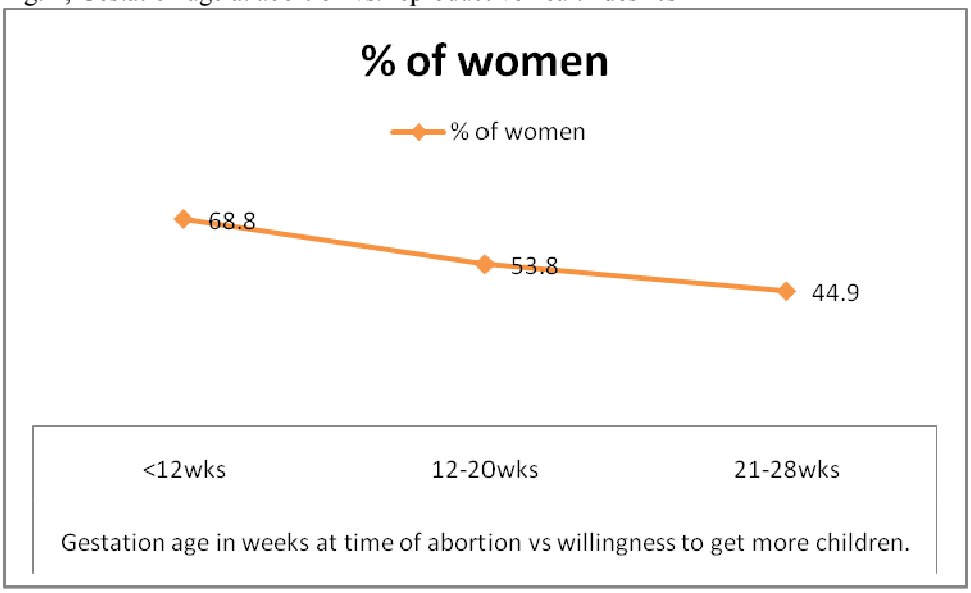


Fig: 2, Gestation age at abortion vs. reproductive health desires



DISCUSSION

The age range was 17 to 40 years. Most of the respondents (75%) were in age group between 20-40 years, were prime gravidas (22.5%) and had only primary education (55%).

Majority were either married or cohabiting (80%), were rural house wives (40%), HIV Negative(52.5%), had used a contraceptive before the current abortion(52.5%), did not report history of contraceptive failure(70.0%), had knowledge of contraceptives(87.5%), did not have knowledge of long acting contraceptives (55.0%), had never used LAC(87.5%).

Majority of women (95%) with abortion did not have knowledge of ECs. This implies that they had no solution to avoid unintended pregnancy after unprotected sex. Unintended pregnancy can be avoided by ECs. Studies have indicated that a single 10 mg dose of mifepristone, and two 0·75 mg doses of levonorgestrel 12 h apart, are effective for emergency contraception(von Hertzen et al., 2002)

In our study it was found that the ended pregnancies were unintended in majority of respondents (62.5%). This agrees with findings in Ethiopia; in 2005, the penal code was revised to broaden the indications under which induced abortion is legal. Indirect estimation techniques were applied to calculate the incidence of induced abortion. Abortion rates, abortion ratios and unintended pregnancy rates were calculated for the nation and for major regions. In 2008, an estimated 382,000 induced abortions were performed in Ethiopia, and 52,600 women were treated for complications of such abortions. There were an estimated 103,000 legal procedures in health facilities nationwide—27% of all abortions. Nationally, the annual abortion rate was 23 per 1,000 women aged 15–44, and the abortion ratio was 13 per 100 live births. The abortion rate in Addis Ababa (49 per 1,000 women) was twice the national level. Overall, about 42% of pregnancies were unintended, and the unintended pregnancy rate was 101 per 1,000 women. It was concluded that unsafe abortion is still common and exacts a heavy toll on women in Ethiopia. To reduce rates of unplanned pregnancy and unsafe abortion, increased access to high-quality contraceptive care and safe abortion services is needed (Singh et al., 2010)

Half of abortions (50%) were spontaneous while (50%) were induced though voluntary exposure was only 40% in those with induced abortion. The rest of induced abortions were discovered after asking the women the method used. Women were not willing to reveal the provider. Exposure was voluntary only in cases that had complications. Of the eight induced abortions (62.5%) were done by health workers, (25%) were performed by a traditional healer, while (12.55) was done by a relative. The methods used to induce the abortion included medical methods (25%) =5, surgical (60%) n=12, mechanical local (5%) n=1, herbal (10%) n=2. This implies that although only eight respondents volunteered information that the abortion was induced, the actual number of induced abortions was twenty (20) which means that half of the abortions that occurred were induced but there is a high level of concealment. This can also be reflected in the fact that more than half (62.5%) n=25 of the pregnancies were unintended and the fact that abortion is illegal in Uganda. Complications of abortion occurred in 20%, while 80.0% of women did not get complications. It is likely that the eight who developed complications may have been the ones who volunteered information that the abortion was induced. This means that usually women will not reveal the person who performed the act on them given the fact that abortion is illegal in Uganda. In many cases this concealment and stigma has resulted into fatal complications making abortion one of the leading causes of maternal mortality in Uganda. This is related to findings at a clinic in

Houston, Texas. The 15-question survey addressed disclosure of abortion to the partner, reasons for nondisclosure if applicable, and physical and sexual abuse using a modified Abuse Assessment Screen. Of 960 patients, 85.2% completed the survey, for a final sample size of 818. Overall, 139 (17.2%) of subjects chose not to disclose the abortions to their partners, and 14% of patients reported abuse within the past year. Physical or sexual abuse or both was twice as common among nondisclosure (23.7% compared with 12.0%, $P = .001$). Among nondisclosures, 63 (45.3%) said the relationship with the partner had no future, 52 (37.4%) did not feel obliged to notify their partners, 29 (20.9%) said the partner would oppose the abortion, and 11 (7.9%) said disclosure would result in physical harm. In this urban, racially and socioeconomically diverse population, 17.2% of women concealed pregnancy terminations from their partners. Although relationship instability and personal choice were cited as the most frequent reasons for nondisclosure, the rate of domestic abuse was twice as high in this group and may have adversely affected open communication. Of greatest concern, a subset of nondisclosures reported the direct fear of personal harm as the primary reason for nondisclosure(Woo et al., 2005)

Majority of the women 97.5% were managed by evacuation, only one woman 2.5 %(n=1) was treated by Laparotomy. 97.5% survived with no disability. The most complications 5 out of 8 occurred between 20 and 30 years. Of the 8 women who developed complications 5 were from rural areas and the complications were as follows septic abortion=3, perforated viscera=1 and anaemia. Complications were more common in women who had index abortion (4 out of 8), compared to those with more than one abortion. Complications were more common among women with early gestational age i.e. first trimester (25%) n=4 out of 16. Majority of complications occurred to women of tertiary education 2 out of 4(50%), followed by primary education n=5out 22(22.7%). The only woman with perforated viscera was a student. All women who developed complications 8 out of 8 had no knowledge of ECs. Five out of eight women who developed complications (4 with sepsis and one with perforation had unintended pregnancy), while 3 women who had intended pregnancy developed complications one case of sepsis and 2 cases of anaemia. More complications occurred among induced abortions as compared to spontaneous abortion37.5%(3 out of 8) and 9.7% (5 out of 31) respectively. Induced abortion was associated with Laparotomy. This compares with earlier findings by Ladipo in 1989, where found that in societies with restrictive abortion laws, clandestine induced abortion by unskilled personnel results in needless and very high mortality and morbidity, tremendous strain on limited health resources, and inexcusable human suffering. He pointed out that sepsis, hemorrhage, genital tract trauma, and related ill health and sterility, could be prevented by legalizing abortion, making appropriate sex education and contraceptive services available and training physicians and non physicians in uterine vacuum aspiration(Ladipo, 1989)

Willingness to get more children declined with gestation age at which abortion occurred, number of abortions and after the fifth pregnancy. All women below 19 years 3 out of 3 were not willing to have children, women between 20 and 30 years(81%) were more interested in getting more children after treatment, while women between 31 and 40 years(90%) were less interested in more children. Surprising the only woman who was between 41-50years was still interested in getting more children. Overall of 55% were willing to get more children, while (42.5 were not interested in more children after treatment. Women who had intended pregnancy were more willing to get more children as compared to women who had had unintended pregnancy, 60 %(9 out of 15) and 54 % (13 out of 24). The reproductive desires among HIV positive women was equal to that of HIV negative women 33.3% (1 out of 3) and 33.3% (7 out of 21) respectively. Single women were more interested in getting more children as compared to married or cohabiting women 71.4% and 53%., respectively. Women who had no history of contraceptive failure were more willing to get more children than those with history of contraceptive failure48.1% (n=13out of 27) and 33.3 % (n=4 out 12) respectively. Findings by Glasier in 2006 indicate that unsafe sex is the second most important risk factor for disability and death in the world's poorest communities and the ninth most important in developed countries. Cheap effective interventions are available to prevent unintended pregnancy. Yet every year, more than 120 million couples have an unmet need for contraception, 80 million women have unintended pregnancies (45 million of which end in abortion), more than half a million women die from complications associated with pregnancy, childbirth, and the postpartum period. Sexual and reproductive ill-health mostly affects women and adolescents. Women are disempowered in much of the developing world and adolescents, arguably, are disempowered everywhere. Sexual and reproductive health services are absent or of poor quality and underused in many countries because discussion of issues such as sexual intercourse and sexuality make people feel uncomfortable. The increasing influence of conservative political, religious, and cultural forces around the world threatens to undermine progress made since 1994, and arguably provides the best example of the detrimental intrusion of politics into public health(Glasier et al., 2006).

Conclusion: There is high knowledge (87.5%) of contraceptives but low knowledge (95%) of ECs among women undergoing PAC at MRRH. Majority of women (62.5%) who are admitted for PAC have unintended pregnancy. Majority of abortions (80%) were spontaneous while (20%) were induced. Providers of abortion among women admitted for PAC includes health workers (62.5%), a traditional healer (25%), a relative (12, 5%). The methods used to induce the abortion included medical methods (25%) =5, surgical (60%) n=12,

mechanical local (5%) n=1, herbal (10%) n=2. Complications of abortion occurred in 20%. The complications included septic abortion=3, perforated viscera=1 and anaemia. Women who had intended pregnancy were more willing to get more children as compared to women who had had unintended pregnancy, 60 % and 54 % respectively. More complications occurred among induced abortions as compared to spontaneous abortion37.5% and 9.7% respectively. Voluntary disclosure is low among women presenting for PAC at MRRH (40%, 8/20) of all women who had induced abortion.

Recommendations: There is need for expansion of contraceptive services in order to reduce the burden of unintended pregnancies. Emergency contraception should be made more available. All abortions should regard and managed as induced abortion as the rate of voluntary disclosure is low.
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