

Fertility awareness and post-abortion pregnancy intention in Addis Ababa, Ethiopia

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Abstract

Background: Abortion related complications are known to be among the leading causes of maternal mortality and disabilities in developing countries.

Objectives: The aim of the study was to assess the knowledge of post-abortion patients, regarding return of fertility and pregnancy intentions.

Methods: Cross sectional study was undertaken in four government hospitals in Addis Ababa, Ethiopia from November 2001 to February 2002. Four hundred post-abortion cases were interviewed at the point of their discharge to get information on their fertility awareness and future pregnancy intentions.

Results: Seventeen percent of the respondents who reported that the pregnancies were unwanted admitted some kind of interference with the pregnancy. Thirty six percent reported that they were assisted at clinics for inducing the abortion. Overall about 82% of them reported not having a plan to become pregnant in three months period following the abortion. Seventy three percent of them were not able to tell the time at which they could become pregnant if involved in sexual intercourse after the present abortion.

Conclusion: This study revealed the urgent demand for quality services that should include education and provision of family planning counseling and methods. [*Ethiop.J.Health Dev.* 2003;17(3):167-174]

Introduction

Each year above half a million maternal deaths occur due to preventable pregnancy related complications. The developing world is disproportionately more affected than the developed. From the direct causes of maternal deaths, complications of abortion stand their accounting for 13% of the overall causes of maternal deaths (1,2). Abortion is known to cause serious short term and long-time negative health consequences including death (3). Studies done in Ethiopia have shown that

abortion is a major public health problem being the most common cause of maternal mortality and morbidity (4-14). It was reported that significant hospital resources in the country are wasted on care for abortion.

A recent nationwide study on abortion related complications has shown that an estimated number of 17 patients are seen in hospitals for postabortion complications in a month (4). According to this study, complications due to abortion were also reported from low-level facilities, which do not provide postabortion care services. From a community based large-scale survey in Addis Ababa, maternal mortality in the city was estimated to be 566 per 100,000 live births and abortion was major contributor to the deaths (5). Tadesse et al indicated that the frequency of abortion per delivery to be 317.8/1000, and induced abortion consumed significant resources due to higher rate of complications (6). Studies done in

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different hospitals out of Addis Ababa have also shown that abortion is a major health problem encountered (7-12).

Few community-based studies have also reflected the same reality. Out of 489 giving previous history of pregnancy in Addis Ababa, 113 (23%) had live births, 4 (0.8%) had stillbirths, 10 (2.0%) had spontaneous abortions, and 362 (74%) had illicit abortions (13). Another study showed that lifetime history of abortion in a northern rural community of Ethiopia to be 20.8% (14), with mean number of abortion per woman being 1.8 ranging from 1 to 9. In most of the cases, reasons given for the unwanted pregnancies culminating in induced abortions were economic, being on education and too close or too many pregnancies or deliveries.

Unsafe abortion in Ethiopia, like in many other African countries, is characterized by inadequate provider skills, hazardous techniques and unsanitary facilities. Either the woman herself or unskilled provider attempts termination by inserting foreign bodies or instruments or by the woman ingesting modern or traditional medicines (15). Studies have indicated that abortions take place at homes of the patient or the inducers and also in health facilities. Those who admit interference usually use plastic tubes, metallic instruments, different medication used orally, vaginally or intravenously for induction (6, 10-12). Studies have reported that health workers varying from physicians to traditional birth attendants were involved in induction (6,11).

According to different studies on women seeking treatment for abortion complications, few of them used any of the modern contraceptive methods despite adequate knowledge of availability of family planning services (6, 10, 16). There is no data on the level of fertility awareness of women in reproductive age group in general and women experiencing abortion in particular in Ethiopia. But findings from other countries indicate that women are often unaware of the timing of

fertility return after abortion could be as early as two weeks and often confuse it with postpartum period (17).

The main aim of this study was to assess the knowledge of postabortion patients regarding how soon fertility could return after abortion and to assess their future pregnancy plan after the last abortion. To assess the pattern of abortion overtime, the study also looked at the socio-demographic characteristics of the patients, underlying causes for abortion and settings under which unsafe abortion took place. The study is believed to provide information that will enable planners to design services that minimize lost opportunities.

Methods

This was a cross-sectional study on abortion in four government hospitals (Tikur Anbessa, Zauditu Memorial, Gandhi Memorial and Yekatit 12) in Addis Ababa. All hospitals providing postabortion care, but Saint Paul, which was under renovation at the time of the study were included in the study.

To achieve the maximum sample, the sample size was calculated based on an assumption that 50% of the abortion cases seek postabortion service. Using single proportion formula with marginal error of 5% and adding 10% for non-response, 422 patients were required. Consecutive cases were interviewed until the required sample was obtained just before discharge from respective hospitals for a period of four months, namely November 2001 to February 2002. According to WHO classification of abortion (18), only those who admitted interference (certainly induced abortion category), were categorized as induced abortion in this study otherwise they were taken as spontaneous. Cases with severe illness who were unable to participate during the study period were not included in the study.

Five twelve-grade complete non-health professional female interviewers were recruited for data collection. Training on data collection was given for one week and the questionnaire

was pre-tested. The questionnaire had two major sections: (i) *Socio-demographic* comprising of age, marital status, educational status and occupational status, and (ii) *Reproductive history and family planning background*: previous pregnancy, deliveries, abortion, FP knowledge and practice, knowledge on how soon fertility returns and plan for next pregnancy. Ethical clearance was obtained from the Research Ethics Committee of Faculty of Medicine, Addis Ababa University. Verbal consent was obtained from each patient for participation in the study. Privacy and confidentiality were ensured during the exit interview.

SPSS version 10 was used for data entry, cleaning and analysis. Frequencies, percentages, means (SD), odds ratios and 95% confidence intervals were used to present the findings.

Results

Four hundred and one (95%) postabortion cases (193 (48.1%) from Gandhi Memorial Hospital, 82(20.4%) from Tikur Anbessa Hospital, 71(17.7%) from Yekatit 12 and 55(13.7%) from Zauditu Memorial Hospital) were interviewed during the data collection period. Data was not available for 21 (5%) cases.

Age of cases ranged from 15 to 47 years with a mean± SD of 26.4 ± 6.42 years, over half 225 (56.1%) of them were aged between 20-29 years (Table1). Sixty-nine (17.2%) admitted interfering with the pregnancy. The mean age of cases with spontaneous abortion (27.07 ± 6.42) was significantly higher (p<00.5) than that of induced abortion cases (23.09 ± 4.91). As shown in Table 1, about 286 (71%) were married, and 281 (70%) attended formal education varying from primary to tertiary level. Two hundred fifty eight (64.3%) were unemployed, 24 (5.9%) were daily laborers and 12 (3.0%) were students.

Table 1: **Socio-demographic characteristics of postabortion patients in Government Hospitals, Addis Ababa, 2002**

Variables (n=401)	Number	Percent
Age		
15-19	55	13.7
20-24	121	30.2
25-29	104	25.9
30-34	57	14.2
35+	64	16.0
Marital Status		
Married	286	71.3
Single	98	24.4
Cohabiting	4	1.0
Separated, divorced and widowed	13	3.1
Occupation		
Employed	76	18.9
Private business	31	7.7
Unemployed	258	64.3
Student	12	3.0
Daily laborer and housemaid	24	5.9
Education		
No education	118	29.4
Read and write	2	0.5
Primary	116	28.9
Secondary	143	35.7
Beyond secondary	22	5.5
Ethnic group		
Amhara	186	46.4
Oromo	94	23.4
Gurage	74	18.5
Tigray	28	7.0
Others	19	4.7
Religion		
Orthodox	315	78.6
Muslim	54	13.5
Protestant	30	7.0
Catholic	2	0.5

Almost 70% of the respondents were at least pregnant once before the current pregnancy (Table 2). Maximum number of pregnancy was 15 (with median pregnancy =2) and the number of deliveries ranged from 1 to 14 (with median delivery =1). Table 2 also shows that 116 (29.0%) of the respondents gave history of previous abortion, which was experienced once in 84 (72.4%), twice in

19(16.4%), three times in 11(9.5%) and four and above times in 2 (1.7%). One hundred fifty six (38.9%) respondents reported that the current pregnancy, which ended in abortion, was unwanted. As indicated in the same table, over three quarter of the cases reported that the current pregnancy terminated

spontaneously, while the rest admitted interference with pregnancy. Three hundred ten (77.3%) of the respondents knew at least one contraceptive method. Ever use of contraceptives was 53.4%, of whom 31 (44.9%) admitted interference and 183 (55.1%) with spontaneous abortion.

Table 2: **Reproductive history of post-abortion patients in Government Hospitals, Addis Ababa, 2002**

Variables (n=401)	Number	Percent
Previous pregnancy*		
None	121	30.2
1-4	199	49.6
5-7	59	14.7
8-10	17	4.2
11 and above	5	1.2
Delivery		
None	159	39.7
1	89	22.2
2-4	117	29.2
5-7	28	7.1
8-10	6	1.5
11 and above	2	0.5
Previous abortion		
Yes	116	29.0
No	285	71.0
Current pregnancy wanted		
Yes	245	61.1
No	156	38.9
Current pregnancy induced		
Yes	69	17.2
No	332	82.8
Knew at least one contraceptive method		
Yes	310	77.3
No	91	22.7
Ever use of contraceptives		
Yes	214	53.4
No	187	46.6

* Current pregnancy not included

Among those whose last pregnancy was unwanted, poor knowledge of contraceptives and forgetting to take contraceptives regularly were given as main reasons by more than 80% of the respondents, only 18% responded that partner pressure as contributing factor. Major reasons given for resorting to unsafe abortion by the 69 cases who admitted interference were economic 27(34%), not

being married 17 (25.8%) and to complete education in 15 (22.7%). The pregnancies were interfered at inducers' houses, health institutions and patients' houses in 31 (44.9%), 25 (36.2%) and 11 (15.9%) respectively. Materials used were metal in 28 (40.6%), different medications in 20 (29.0%) and plastics in 16 (23.2%) of the cases. Induction was assisted by health workers

varying from physicians to traditional birth attendants in 58 (84.1%) of the cases.

Analysis of induced abortion by socio-demographic variables and status of previous and current pregnancy revealed that induction was higher among young women below the age of 25 years (Table 4). Induced abortion decreases as age increases, and found to be more in those who were single (OR=11.86,

95%CI=6.27-22.94) compared with married women, literate compared to illiterate women, unwanted pregnancy compared with wanted pregnancy and no previous history of abortion (OR=3.17, 95%CI=1.47-7.13) compared to those having history of abortion. When adjusted, the variables age, marital status and whether the pregnancy is wanted or not remained significantly associated with induced abortion (Table 4).

Table 4: Induced abortion in post-abortion patients by socio-demographic variables and reproductive history, Addis Ababa, 2002

Variables (n=401)	Induced abortion		OR (95% CI)	Adj. OR (95% CI)
	Yes	No		
Age				
14-19	15	40	1	1
20-24	33	88	1.00(0.47, 2.21)	0.55(0.13, 2.33)
25-29	14	90	0.41(0.17, 1.02)	0.22(0.06, 0.77)
30+	7	114	0.16(0.05, 0.47)	0.21(0.06, 0.79)
Marital status				
Married	18	268	1	1
Single#	51	64	11.86(6.27, 22.94)	7.33(3.21, 16.76)
Education				
Literate	53	230	1	1
Illiterate	16	102	0.68(0.35, 1.28)	0.54(0.20, 1.43)
Occupation				
Employed	16	91	1	1
Unemployed@	53	241	1.25(0.66, 2.47)	0.57(0.21, 1.57)
Religion				
Christian	60	287	1	1
Others	9	45	0.96(0.39, 2.14)	1.18(0.37, 3.79)
Ethnic group				
Amhara*	38	148	1.52(0.88, 2.66)	1.98(0.54, 7.32)
Oromo*	16	78	0.98(0.50, 1.87)	2.19(0.54, 8.95)
Gurage*	8	66	0.53(0.21, 1.18)	0.35(0.07, 1.60)
Knowledge of contraceptives				
Yes**	52	258	1	1
No	17	74	1.14(0.58, 2.15)	1.32(0.47, 3.71)
Current pregnancy				
Unwanted	66	90	1	1
Wanted	3	242	0.02(0.00, 0.05)	0.02(0.00, 0.06)
Previous abortion				
No	60	225	1	1
Yes	9	107	0.32(0.13, 0.67)	0.54(0.19, 1.52)
Parity				
Less than 4	66	299	1	1
Greater than 4	3	33	0.41(0.08, 1.38)	0.97(0.18, 5.28)

* compared to other ethnic groups

** Know at least one method

Single includes cohabiting, divorced separated and widowed

@ No formal employment and regular income

When asked on how soon they could become pregnant again if involved in sexual intercourse 107(26.7%) said soon which is

within two weeks after the abortion, 125(31.2%) in one month time, 66(16.4%) above one month while 92(22.9%) said do not

know (Table 5). Regarding future pregnancy plan, only 73(18.2%) responded that they want to become pregnant in the coming three months.

Table 5: **Fertility awareness and pregnancy intentions of post-abortion patients in government Hospitals, Addis Ababa, 2002**

Variables (n=401)	Number	Percent
Fertility return after abortion		
Soon (with in two weeks)	107	26.7
One month	125	31.2
Two-three months	41	10.2
Above for months	25	6.2
Don't know	92	22.9
No response	11	2.7
Future pregnancy plan		
Never	127	31.7
Within three months	73	18.2
Three months to two years	70	17.5
Above tow years	89	22.2
Not sure	39	9.7
No response	3	0.7

Discussion

The study has shown that most cases of induced abortion were observed among young women below the age of 25 years. Mean age of abortion is lower than those reported from Peru and Egypt (19,20) but similar to other findings from Ethiopia (7,8).

History of previous abortion was reported by about 29% of the cases, which is higher when compared to other studies from Ethiopia (14), but lower than the study from Egypt (20). In this study, though 39% reported current pregnancy was unwanted, only 17% admitted that the pregnancy was interfered. WHO classification of abortion puts the group who admitted interference in the certainly induced abortion category while those who said current pregnancy was unwanted but denied interference in the category of possibly induced abortion (18). Therefore, the number of interference with current pregnancy may be higher than stated in the study. In general this is a sensitive area that respondents do not want to disclose. Due to this fact results from different studies show varying number of proportions between spontaneous and induced abortions (7,11,12,20).

be higher than stated in the study. In general this is a sensitive area that respondents do not want to disclose. Due to this fact results from different studies show varying number of proportions between spontaneous and induced abortions (7,11,12,20).

Similar to the current findings, Hassen F (21) reported contraceptive misuse or poor knowledge as main cause for the unwanted pregnancies. The main reasons for resorting to unsafe abortions were not different from the work of previous investigators (10,21,22,23).

The fact that 84%, were assisted by health professionals and 36.2% of the induction took place in health institutions, could be due to the flourishing of private clinics and management in below the standard settings. According to Tadesse et al (6) and Madebo et al (12), health workers undertook the inductions in 35.3% and 55% respectively. In the study by Tadesse et al (6), the share of health institutions as a place of induction was only 5%. Materials used for the inductions, in this study were not different from those reported in several studies (6,10,11,12).

Need for family planning was well reflected since 81.8% of the cases did not have the intention to get pregnant at least in the first three months following abortion. This could be inflated figure as there could be a tendency to report not to have a baby by the patients due to the experiences they may have had during the current abortion. But the fact that great majority of them reported delay in getting pregnant shows that postabortion setting is an important opportunity to provide postabortion family planning counseling and initiate family planning methods.

Seventy three percent of the women also were not able to tell when they could become pregnant again if they are involved in sexual intercourse after discharge. Generally, a woman's fertility returns within two weeks following abortion of the first trimester. Many

women are unaware of this fact and confuse with postpartum period where return to fertility is more delayed (17). Majority of the patients responded wrongly to the timing of fertility return after the current abortion. This indicates that the information provision is not adequate and significant number of cases could again become pregnant and possibly end up in unsafe abortion.

In conclusion the study has indicated that unsafe abortion is still a big problem, in hospitals and that there is an urgent demand for quality services that should include education and provision of family planning counseling and methods.

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