Original article

Unintended pregnancy and induced abortion in a town with accessible family planning services: The case of Harar in eastern Ethiopia

Solomon Worku[1], Mesganaw Fantahun[2]

Abstract

Introduction: It is a universally accepted fact that unintended pregnancy and births could have negative consequences for women, children, families and societies at large.

Methods: A cross-sectional study was conducted in Harrar town in southeast Ethiopia where family planning services are relatively easily accessible. The study was carried out in nine kebeles (smallest administrative units), selected from three woredas (districts). A multistage sampling technique was used to select females in the reproductive age group 15-49 years for interview. A structured questionnaire was used to collect data.

Results: A total of 983 females aged 15-49 years were interviewed out of whom, 225 (33.3%) sexually active women reported that their most recent pregnancies were unintended. The prevalence of unintended childbirth among sexually active women constituted about 14.3% of the total while induced abortion was found to be 14.4 %. In multivariate analysis, teenagers (OR 4.2 95% CI 1.4,10, 5), those married at the age of less than 20 years (OR 2.1 95%CI 1.9, 4.7), and currently unmarried (OR 1.7 95% CI 1.2, 2.5) had a higher chance of experiencing unwanted pregnancy. Literate women were found to have a significantly higher chance of having induced abortion (OR 2.8, 95% CI 1.4, 6.4).

Conclusion: Unintended pregnancy was found to be a major reproductive health problem in the study area showing the high unmet need for family planning and thus deserves priority attention. Expanding access to family planning without regard for the provision of effective IEC, counseling and quality care may not have the expected benefits in this context. [*Ethiop.J.Health Dev.* 2006;20(2):79-83]

Introduction

Unintended pregnancy is a worldwide problem that affects women, their families and societies at large. Unintended pregnancy can result from not using contraceptives, contraceptive failure and also, less commonly, from rape (1-3).

Between 20- 40% of all births occurring in developing countries are unwanted posing hardships for families and jeopardizing the health of millions of women and children (1 -3). As a result, significant proportions of women turn to induced abortions to avoid unwanted or unplanned births. This is the case not only in countries where abortion is legal and safe but also in places where it is illegal. An estimated 50 million induced abortions are performed each year, 20 million of which are performed in unsafe circumstances or by un-trained providers (1,4). Thus, reducing the number of unintended pregnancies promotes reproductive health mainly by reducing the number of times a woman is exposed to the risks of pregnancy and child bearing in adverse circumstances (1,4).

Maternal mortality in Ethiopia is one of the highest in the world (5,6,7). The contraceptive prevalence rate in Ethiopia is about 8%. The few surveys conducted on issues related to abortion and unwanted pregnancy suggest that the magnitude of unwanted pregnancy and unsafe abortion are among the main causes of maternal mortality in Ethiopia (8 - 12). However, there is little information about factors related to unintended pregnancy in the country.

Therefore, the main objective of this study is to asses the magnitude of unintended pregnancy and unsafe abortion and their determinants among females in the reproductive age group of 15-49 years residing in Harrar town, south east Ethiopia.

Subjects and methods

This community based, cross sectional study was conducted from November to December 2001 among females in the reproductive age group of 15-49 years residing in Harrar town. Harrar town has a population of 77000 and serves as one of the commercial, religious, and political center of the south eastern Ethiopia region and is home to various ethnic groups. The town has a number of hospitals, health centers and NGO clinics that provide family planning services. A multi-stage sampling technique was applied to select the study subjects and the town was divided into three clusters by districts (*woreda*). Three *kebeles* from each district were randomly identified. The number of households to be included in each *kebele* was determined in proportion with the total number of households found in each *kebele.* A systematic sampling method was then employed to select the households. Whenever more than one eligible respondent was found in the same selected household, only one respondent was chosen using the lottery method. In case no eligible candidate was identified in a selected household, the interviewer would

[1]Harari Regional Health Bureau, Harar, Ethiopia; [2]Department of Community Health, Addis Ababa University, E-mail mesganaw.f@yahoo.com, P.O. Box 24762 Code 1000, Addis Ababa, Ethiopia

go to the next household in the clockwise direction until she gets an eligible woman.

The sample size was estimated based on the assumption that 50% of the pregnancies were unintended to get a maximum number, a 5% margin of error, a 95% confidence level, a 20% non-response rate and a design effect of 2.

Data were collected by trained female interviewers using a pretested questionnaire. The questionnaire included socio-demographic variables, knowledge and practice questions about family planning and unintended pregnancies, as well as births and induced abortions. Informed consent was obtained from every participant before the interview was conducted.

EPI-INFO version 6 and SPSS version 10 statistical package software were used to analyze the data. In addition to descriptive statistics, odds ratio and a 95% confidence interval were used to determine the strength of the associations. The logistic regression analysis model was used to assess the relative effect of variables**.**

Results

A total of 1000 women of reproductive age group (15 – 49 years) were identified for the study out of which 983 were interviewed with a non-response rate of 1.7%. The socio-demographic characteristics of the respondents are shown in Table 1.

The mean age of the study population was 28.2 $\pm$ 8.5, years. Five hundred forty seven (55.6%) respondents were married while 292 (29.7%) were never married, (12.5%) of the respondents were illiterate 429 (43.6%) were housewives and 106(10.8%) were unemployed.

Of the total of 983 interviewed women, 785 (79.9%) reported to have been sexually active and 675 (68.7%) to have been pregnant at least once. The mean ages at marriage and pregnancy were 18.8$\pm$4.5 and 19$\pm$3.3 respectively. About 41% of those women who had been pregnant at least once had their first pregnancy between the age of 15 to 19 years.

Nine hundred fifty (96.6%) respondents knew at least one modern contraceptive method. Among the women who have ever had sexual encounters 295 (37.5%) reported to be current users of modern contraceptives methods, 210 (26.8%) said had used methods some time in the past and the rest 280(35.7%) had never used contraceptives.

Two hundred twenty five (33.3 %) out of the 675 pregnant women reported that their most recent pregnancies were unintended. Of these, 112 (50%) had unintended childbirths while the rest 113 (50%) ended in induced abortions. This makes the prevalence of unintended births about 14.3% and that of induced abortion 14.2% among sexually active women.

Table 1: **Socio demographic characteristics of survey respondents, Harrar, south east Ethiopia Nov. – Dec 2001 (n=983)**

Characteristics	Frequency	Percent
Age		
15-19	156	15.9
20-24	216	22.0
25-29	214	21.8
30-34	131	13.3
35-39	127	12.9
40-49	139	14.1
Religion		
Orthodox	606	61.6
Muslim	304	30.9
Protestant	68	6.9
Catholic	2	.2
Other	3	.3
Marital status		
Married	547	55.6
Never married	292	29.7
Divorced/Separated	92	9.4
Widowed	52	5.3
Education		
Non educated	123	12.5
Read and write	75	7.6
Primary	252	25.6
Secondary	501	50.1
Higher	32	3.3
Occupation		
House wife	429	43.6
Gov and NGO employee	156	15.8
Student	127	12.9
Street vender	119	12.1
Unemployed	106	10.8
House maid	34	3.5
Other	12	1.2

Among the women who had unintended pregnancies the most frequent reply given as the reasons for failure to avoid unintended pregnancy were: inadequate knowledge on avoiding unwanted pregnancy - 159 (70.6%), husband or partner disapproval - 26 (11.6%), method failure - 25 (11.1%), and difficulty in accessing contraceptives - 10 (4.4%).

In the multivariate analysis, teenagers (OR=4.2 95% CI 1.4, 10.5), those with primary school education (OR= 1.65 95%CI 1.01, 2.65), age at marriage less than 20 years (OR= 2.1 95%CI 1.9,4.7), and those who are currently unmarried(OR 1.7 95% CI 1.2,2.5) had a higher chance of experiencing unintended pregnancy. The odds of experiencing unintended pregnancy were lower for women with less than 4 pregnancies compared with those women who had 5 or more pregnancies and for those in the age group of 25 – 29 years (Table 2).

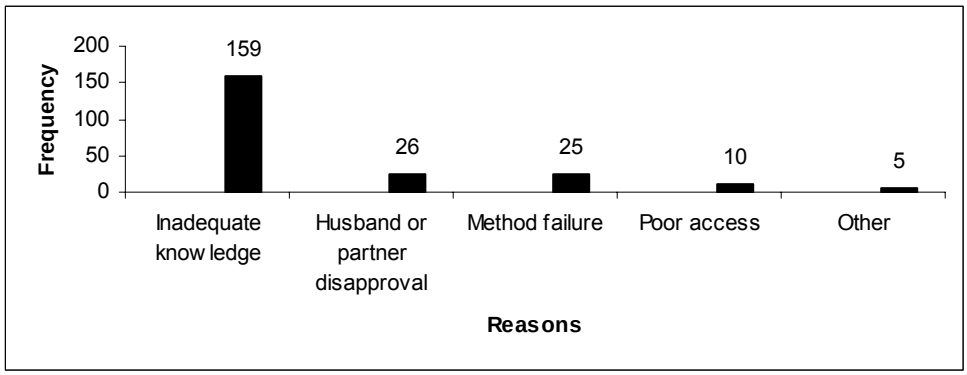

Figure 1: **Reasons for unintended pregnancy in Harrar, Ethiopia, 2001**

Table2: **Distribution of unintended pregnancy among respondents by selected socio demographic characteristics in Harrar South east Ethiopia Nov- Dec 2001.**

Back ground characteristics	Unintended pregnancy		Adjust OR (95% CI)
	Yes Freq. (%)	No Freq. (%)	
Age			
15-19	14(48.3)	15(51.7)	4.23(1.42,10, 54)*
20-24	36(35.0)	67(65)	0.82(0.40,1.68)
25-29	63(36.6)	109(63.4)	0.54(0.29,0.98)*
30-34	41(34.2)	79(65.8)	0.58(0.32,1.60)
35-39	39(33.6)	77(66.4)	0.58(0.32,1.04)
40-49	32(23.7)	103(76.3)	1.00
Education			
None	31(30.4)	71(69.6)	0.91(0.49,1.71)
Primary	89(34.1)	172(65.9)	1.65(1.01, 2.6)*
Secondary and higher	105(33.7)	207(66.3)	1.00
Age at first marriage			
10-14	15(24.2)	47(43.9)	2.05(1.89,4.74) *
15-19	103(29.6)	245(70.4)	1.38(1.75,2.56)*
20-24	43(28.5)	108(71.5)	1.99(0.84,2.61)
25-and above	24(32.9)	49(67.1)	1.00
Marital status			
Married	142(29.7%)	336(70.3%)	1.00
Single	83(42.1%)	114(57.9%)	1.72(1.20,2.47)*
Number of pregnancies			
≤2	93(28.1)	238(71.9)	0.55(0.33,0.74)*
3-4	53(31.5)	115(68.5)	0.57(0.37,0.89)*
5 and above	79(44.9)	97(55.1)	1.00

Age and marital status did not have significant association with induced abortion whereas educational status and number of pregnancies were significantly associated with experiencing induced abortion (Table 3). Those who were literate had a significantly higher chance of having induced abortions (adjusted OR = 2.82, 95% CI (1.4, 6.4). Women with fewer than 3 children had a significantly lower chance of experiencing induced abortion compared with those who had 5 or more children (adjusted OR = 0.32, 95%CI 0.16,0.64).

Discussion

In countries that are undergoing demographic transitions such as Ethiopia, women may complete their desired child bearing at early age if effective birth control is not practiced. Women could have several unwanted pregnancies in their lifetimes. A decline in desired family size over time leads to a rise in the proportion of women who are at risk of having unwanted pregnancies and its consequences, particularly where contraceptive use is not optimal (13). A study of this type is thus very important to assess the magnitude of the problems and the factors that influence unwanted pregnancy.

The majority of women in this study were literate, which may be related to the better access to education than the most rural areas or towns of Ethiopia, as Harar is one of the major towns of Ethiopia.

A high proportion (33.3%) of women reported that their most recent pregnancy was unintended and among all unintended pregnancies half had ended in induced abortions which might indicate that available programs for avoiding unintended pregnancy are not so successful. This finding is in line with the Ethiopian Demographic and Health Survey which reported that about one third of the pregnancies were unplanned (7) which makes the results of this study comparable to the national average. It is also similar to the results from a study in Nigeria (14). However, given the access to health services (100% the geographic coverage and the availability of all levels of health institutions), the prevalence of unintended pregnancy is relatively high. A study conducted about a decade ago in northwest Ethiopia had reported a prevalence of about 40% of unintended conceptions (15). The difference could be attributed to the progress in the awareness and availability of services in the country and other factors related to the study areas.

The most frequent reason mentioned by the participants of this study for failure to avoid unintended pregnancy were inadequate knowledge on avoiding unwanted pregnancy, husband disapproval, and method failure. Inadequate knowledge on avoiding unwanted pregnancy appears to contradict with the reported high knowledge of contraceptives. Thus it may not be enough to know or be able to name contraceptives in order to prevent unintended births. The appropriate Information, Education and Communication on preventing unplanned/unwanted pregnancy also needs to be provided. Method failure is a serious problem with great implications both for the individual as well as the system providing family planning services. Deceived by false protection, the individual woman could face unwanted pregnancy and its consequences. The system would lose the confidence of users and potential users. This finding on method failure was comparable with a study done in Zimbabwe (16). Although the cause(s) of method failure may need to be investigated in more details, poor counseling during service delivery is a likely contributing factor.

Singles were found to be more likely to report on having unintended pregnancy and this is in agreement with studies conducted in Harare Zimbabwe (17). As singles may not be in stable union and parenthood with out marriage is not acceptable in many cultures, they are most likely to have more unintended pregnancies (18).

Women with fewer pregnancies were less likely to report having unintended pregnancies and this is in agreement with the fact that as family size increases, unintended/unwanted pregnancy tends to increase (13). On the other hand, women with two or one pregnancies were found less likely to report as having induced abortion compared to those women with three or more pregnancies. This differs from the findings of other studies (10, 14, 17). A possible explanation of the finding in this study is that with more pregnancies (and hence more unwanted ones), women might be more motivated to resort to induced abortion.

Being educated was found to be strongly associated with induced abortion where as it was weakly associated with having unintended pregnancy. Those with primary education had a little higher chance of having unintended pregnancies. A possible explanation is that educated women are more likely to terminate the pregnancy if it is not properly timed or unwanted (19) rather than avoid it. The observed weak association between primary education and unintended pregnancy in this study is difficult to explain, but it might be related to un accounted factors. Husband's disapproval is one of the obstacles for the use of family planning methods which calls for initiating activities on male involvement in avoiding unwanted pregnancies.

In conclusion, the estimates of unintended pregnancy indicate that it is one of the major reproductive health problems with all its adverse outcomes. Women resort to risk even their lives in desperate conditions like seeking for illegally induced abortion following unintended pregnancy.

Failure to avoid unwanted pregnancy by using contraceptives is perhaps a result of poor IEC, poor counseling at the time of method provision and related quality of care issues. In a very low contraceptive coverage country such as Ethiopia the concern that immediately comes to mind would be the expansion of access to contraceptives. However, efforts to expand access to family planning methods without regard for the provision of effective IEC and quality care may have little benefit (low cost effectiveness) in terms of achieving the major objectives of avoiding unwanted pregnancy and unsafe abortion.

It is recommended that policy makers, health professionals and health authorities should give due attention to the improvement in the provision of effective IEC and counseling and quality of care. IEC and related activities should also target men.

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