ORIGINAL ARTICLE

Knowledge About The Revised Abortion Legislation Among Reproductive Age Women: The Case Of Gondar Town

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ABSTRACT

Background*-Experience from around the world shows that restrictive abortion laws lead women to have unsafe abortions, in turn contributing to over one-tenth of maternal deaths in developing countries. Even when safe, legal abortion services are available, women who lack accurate information about the relevant laws may seek unsafe abortions because they do not know they are eligible for the service or do not know the legal requirements for obtaining an abortion. Research in several countries has found that public knowledge about abortion law is often minimal. In Ethiopia, little is known regarding knowledge of the revised abortion law among women of reproductive age.*

Objective*-This study was done with the objective of assessing the level of knowledge of reproductive age women on the legal grounds on which abortion is permitted in Ethiopia and its associated factors.*

Methods*-A community based cross sectional study of reproductive age women was conducted in Gondar Town from April 15 to 25, 2010 using structured questionnaire. The systematic sampling technique was used to select the study participants.*

Result*- A total of 806 reproductive age women participated in the study. Only 41% of the study participants know that abortion is legal under certain circumstances in Ethiopia. Women with secondary and higher education, those who are government employees, students, those with high income, members of a health club, those who have heard about emergency contraceptives and who knew someone with induced abortion increased the odds of knowing the abortion legislation (p<0.05, for each factor).*

Conclusion and Recommendations*- The majority of the reproductive age women did not know the legal grounds for abortion in Ethiopia. Education and public awareness raising activities are needed to help the country benefit from the legal reform.*

INTRODUCTION

Experience from around the world shows that restrictive abortion laws lead women to have unsafe abortions, in turn contributing to over one-tenth of maternal deaths in developing countries (1). In most African countries, legal restrictions and lack of services severely constrain abortion availability but do not necessarily reduce the number of abortions that occur (2).In Ethiopia, maternal mortality rate is 1.34 per 1,000 women aged 15 to 49 years (3), and unsafe abortion is one of the major causes of maternal mortality(4). Evidence from South Africa has shown that abortion-related mortality and morbidity has decreased with the liberalization of the abortion law (5).

Lack of information about the relevant laws may make women eligible for safe abortion to seek unsafe abortion because they do not know that they are eligible for the service. Findings from different studies have found that public knowledge about abortion law is often minimal (6, 7). According to the study done

in Ghana in 2009, knowledge of abortion law was minimal. Only 3 percent of the women reported that abortion was allowed according to the law in Ghana, 43 percent thought it was illegal, and 54 percent did not know anything about the law (8).

Before its amendment on May 2005, The Ethiopian Abortion Law was one of the most restrictive in the world (9). Termination of pregnancy was allowed only if two physicians, one being a specialist in the alleged medical condition, agreed that continuing with the current pregnancy would threaten the life of the pregnant woman. As of May 2005, the law on abortion was revised to include four additional legal grounds which made abortion available: rape and incest, lethal congenital malformation, physical health, and mental health (10).

Since the legal reform, there has been some speculation that elective abortion was becoming more common in the private sector, but high-quality services are probably still limited to women living in urban areas (11). Even with changes to the penal code,

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many women remain unaware of their rights or whether their unintended pregnancy would meet the legal criteria for a safe abortion (2). Therefore, this study assessed the level of knowledge of women of reproductive age group on the current abortion legislation and associated factors six years after introduction.

METHODS

A community based cross sectional quantitative study was conducted in Gondar Town from April 15 to 25, 2010. Gondar Town is found in north Gondar Zone of Amhara Regional State and is located 750 km northwest of Addis Ababa. The town, which is divided into 12 administrative areas, has 206, 987 inhabitants of whom more than 50%(108,902) are female, according to the 2007 census. A single population proportion formula, $[n = (Z \alpha/2)^2 p (1-p) / d^2]$, was used to estimate the sample size of women to be interviewed, with the following assumptions in mind: the proportion of women knowing that abortion is legal according to the law as 50% ($p = 0.5$), design effect of 2, 95% confidence interval, margin of error to be 5% ($d = 0.05$). Computing with the above formula gives a total sample size of 768. Considering a 5% non response rate would finally make the sample size 806.

Gondar town has a total of 12 administrative areas of which four were selected randomly. The number of households to be included in each administrative area was determined in proportion with the total number of households found in each administrative area. Then, a systematic random sampling method was 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 or the selected household was closed even after revisit, the interviewer went to the next household in the clockwise direction until getting an eligible woman.

A structured questionnaire prepared in Amharic was used for the study. Before the actual data collection, pretest was conducted with 40 households in Azezo administrative area and necessary corrections were made. Eight trained female nurses collected data through face to face interview. The principal investigator and two public health officers supervised the data collection process. They made frequent checks on the data collection process to ensure the completeness & consistency of the gathered information. The data were entered and analyzed using SPSS version 13 statistical package. Data cleaning was performed

to check for accuracy, consistency and missed values. Frequencies, proportions and summary statistics were used to describe the study population in relation to relevant variables. Odds ratio and 95% confidence interval were also used to identify the presence and strength of association. The impact of selected socio-demographic and other characteristics on knowledge of the abortion legislation was investigated using both the bivariate method and the multivariate logistic regression technique. Accordingly, variables considered in the bivariate analysis were: age, occupation, marital status, educational status, income, having TV or radio, health institution visit, current contraceptive use, heard of emergency contraceptives, number of pregnancies, knowing someone who had history of induced abortion and personal history of induced abortion of the respondents. Finally, explanatory variables with p value of less than 0.2 in the bivariate analysis were included in the multiple logistic regression.

Operational definitions

Knowledge of abortion legislation: Respondent knows at least one legal circumstance under which abortion is permitted.
Current use of contraceptive: Contraceptive use in the last sexual intercourse.
Income: (Low level- If the monthly family income is less than the 25% quartile i.e. < 451 Birr; Middle level-If the monthly family income is between the 25 and 75% quartile; High level- If the monthly family income is above the 75% quartile (if >1000)).
Ethical clearance for the proposed study was obtained from the Ethical Review Committee of the College of Medicine and Health Sciences, the University of Gondar. The purpose and importance of the study was explained to the participants. Data were collected after fully informed verbal consent was obtained. Confidentiality of the information was maintained throughout by excluding names as identifications in the questionnaire and by maintaining privacy by interviewing them individually.

RESULTS

A total of 806 women aged 15 to 49 years were interviewed. Out of the 806 responses collected, 6 (0.74%) were excluded during data cleaning as they were found incomplete. The mean age of the study subjects was 27.1 years with a standard deviation of 8 years. Orthodox Christians and the Amhara ethnic group accounted for 86.1% and 88.4% of the study population respectively. Three hundred fifty-three (44.1%) participants reported to be single and 276 (34.5%) were students (Table 1).

Table 1: Distribution of the study subjects by socio demographic characteristics, Gondar Town, northwest Ethiopia, April 2010.

No.	Characteristics		Frequency	Percent (%)
1	Age	15-19	145	18.1
		20-24	184	23.0
		25-29	195	24.4
		30-34	103	12.9
		35-39	87	10.9
		40-44	53	6.6
		45-49	33	4.1
2	Marital status	Single	353	44.1
		Married	352	44.0
		Divorced	61	7.6
		Widowed	34	4.3
3	Educational status	Can`t read and write	124	15.5
		Read and write	31	3.9
		First level(1-8)	194	24.3
		Second level(9-12)	314	39.3
		Third level(>12)	137	17.1
4	Occupational status	Merchant	86	10.8
		Government worker	126	15.8
		Student	276	34.5
		House wife	241	30.1
		Daily laborer	55	6.9
		NGO	16	2.0
5	Ethnicity	Amhara	707	88.4
		Tigrie	91	11.4
		Gurage	2	0.3
6	Religion	Orthodox	689	86.1
		Muslim	89	11.1
		Others*	22	2.75
7	Income	Low level	200	25.0
		Middle level	466	58.3
		High level	134	16.8

Note: - * Protestant, Catholic

Knowledge of abortion legislation and associated factors

On the whole, only 328 (41%) of the respondents knew abortion was legal under certain circumstances. Rape and incest were the most frequently mentioned circumstances (Table 2).

Table: 2 Percentage distributions of responses on knowledge of the abortion legislation under different circumstances, Gondar town, northwest Ethiopia, April 2010 (n = 328).

No.	Circumstances	Know
1	Rape	256 (78%)
2	Incest	244 (74.4%)
3	Serious fetal deformities	70 (21.3%)
4	Pregnant mother is under 18	140 (42.4%)
5	Pregnancy endangers the life of the mother	101 (30.8%)
6	Pregnant mother has mental or physical disability	41 (12.5%)

Of all the respondents, 71 (8.9%) reported that they had history of induced abortion. The main reasons given by the respondents for induced abortion were not to dropout from school 30 (42.3%), and financial problem 28 (39.4).The methods used to induce the abortion were plastic tube, 43 (60.6%), different oral drugs 10 (14.1%), and roots and leaves15 (21.1%). The respondents said that the induced abortions were conducted at health institutions 53 (74.6%), at the abortionist's house 15 (21.1%), and their own houses 3(4.2%). Regarding contraception, 413(51.6%) of the participants heard about emergency contraceptive, and 347 (43.4%) women were using them.

The impact of selected socio-demographic and other characteristics on knowledge of the abortion legislation was investigated using both the bivariate methods and the multivariate logistic regression technique. Accordingly, variables considered in the bivariate analysis were: age, occupation, marital status, educational status, income, owning TV/Radio, health institution visit, current contraceptive use, information about emergency contraceptive, number of pregnancies, last pregnancy unintended, knowing someone who had history of induced abortion and personal history of induced abortion of the respondents.

Finally, explanatory variables with p value of less than 0.2 in the bivariate were included in the multivariate logistic regression. Accordingly, high income, being government employee, being student, secondary and tertiary level education, health club membership, having heard of emergency contraceptive, and knowing someone with induced abortion remained to be significantly associated with knowledge of the abortion legislation.

Tertiary education and membership in health clubs tripled the likelihood of women knowing abortion is legal under certain circumstances. Women who: were secondary school graduates, government employee, students, high income earners, had heard of emergency contraceptives were about two times more likely to know the legal provisions for abortion (Table 3).

Table 3: Impact of selected socio-demographic and other characteristics on knowledge of the abortion legislation among women aged 15 to 49 years, Gondar town, northwest Ethiopia, April 2010.

Variables	Abortion is legal under certain circumstances		OR(95%CI)	
	Yes	No	Crude	Adjusted
Age				
15-24	151(45.9%)	178(54.1%)	1.41(1.06-1.88)	0.76(0.48-1.20)
25-49	177(37.6%)	294(62.4%)	1	1
Marital status				
Never married	133(37.8%)	219(62.2%)	0.79(0.59-1.05)	**
Ever married	195(43.5%)	253(56.5%)	1	
Educational status				
Can`t read and write	18(14.5%)	106(85.5%)	1	1
Read and write	3(9.7%)	28(90.3%)	0.63(0.17-2.29)	0.46(0.12-1.80)
Primary	49(25.3%)	145(74.7%)	1.99(1.10-3.61)	1.04(0.53-2.04)
Secondary	163(52%)	151(48%)	6.36(3.68-10.98)	2.47(1.31-4.67)*
Tertiary	95(69.3%)	42(30.7%)	13.32(7.18-24.70)	3.28(1.56-6.92)*
Occupational status				
Merchant	25(29.1%)	61(70.9%)	1.35(.78-2.35)	1.16(0.62-2.16)
Government worker	85(67.5%)	41(32.5%)	6.85(4.25-11.04)	2.52(1.40-4.55)*
Student	146(52.9%)	130(47.1%)	3.71(2.53-5.43)	2.05(1.14-3.53)*
Daily laborer	11(20%)	44(80%)	0.83(.40-1.71)	.908(0.39-2.10)
NGO	5(31.2%)	11(68.8%)	1.50(0.50-4.51)	1.55(0.45-5.31)
House wife	56(23.2%)	185(76.8%)	1	1
Parity				
Parity≥1	167(36.2%)	294(63.8%)	1	1
Nulipara	161(47.5%)	178(52.5%)	1.59(1.20-2.12)	1.14(0.70-1.85)
Monthly family income				
Low level	48(24%)	152(76%)	1	1
Middle level	204(43.8%)	262(56.2%)	2.47(1.70-3.58)	1.47(0.93-2.30)
High level	76(56.7%)	58(43.3%)	4.15(2.59-6.65)	1.90(1.06-3.39)*
Having TV/Radio				
Yes	307(42.4%)	417(57.6%)	1.93(1.14-3.26)	.70(0.36-1.32)
No	21(27.6%)	55(72.4%)	1	1
Know someone with induced abortion				
Yes	138(57%)	104(43%)	2.57(1.89-3.50)	1.58(1.08-2.30)*
No	190(34.1%)	368(65.9%)	1	1
Last pregnancy un intended				
Yes	53(41.4%)	75(58.6%)	1.32(.87-2.01)	**
No	114(34.9%)	213(65.1%)	1	
Health institution visit				
Yes	298(42.4%)	405(57.6%)	1.64(1.04-2.59)	0.70(0.39-1.27)
No	30(30.9%)	67(69.1%)	1	1
Current use of contraceptive				
Yes	142(42.5%)	192(57.5%)	1.11(0.84-1.48)	**
No	186(39.9)	280(60.1%)	1	
Heard of emergency contraceptive				
tive	237(57.4%)	176(42.6%)	4.38(3.23-5.94)	2.28(1.58-3.29)*
Yes	91(23.5%)	296(76.5%)	1	1
No				
History of induced abortion				
Yes	44(62%)	27(38%)	2.55(1.55-4.22)	1.71(0.89-3.28)
No	284(39%)	445(61%)	1	1
Membership to health club				
Yes	91(75.8%)	29(24.2%)	5.85(3.75-9.17)	3.04(1.83-5.05)*
No	237(34.9%)	443(65.1%)	1	1

Note: - * statistically significant ** variables with p value of greater than 0.2 in crude analysis omitted from entering in to the model.

DISCUSSION

Since 2005, the abortion laws have been liberalized in some form to include four additional circumstances. In 2006, the Ministry of Health released technical and procedural guidelines for safe abortion services in Ethiopia which showed the interpretation of each circumstance and the rights of clients to access safe abortion (10). This is one of the few studies focusing on women's knowledge of the abortion law after liberalization in Ethiopia. Knowledge about abortion laws is important because it has implications for access to legal abortion services. Unsafe abortion is still common and exacts a heavy toll on women in Ethiopia. In 2008, an estimated 382,000 induced abortions were performed, 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 (13). Larger proportions of the abortions were not conducted through legal procedures while abortion is legal under certain circumstances. One justification might be lack of knowledge of the legality of abortion. More than half of the reproductive age women (59%) in the study area did not know that abortion was legal under certain circumstances. This lack of knowledge might be because of lack of discussion in health and social welfare services. Also there might be lack of public effort to educate women on its legal status including accurate provision of information on the media.

Lack of knowledge about the legality of abortion and the fact that abortion is not openly discussed by the public and health providers, may create more misconceptions and stigma upon both the women who seek abortion and those who provide these services legally. Thus, women who may be entitled to a legal abortion may resort to unsafe abortion by untrained service providers, or try to abort themselves and risk their health and life (13, 14).

Among the socio-demographic characteristics of the respondents, high income, secondary and tertiary level education, being student and government worker were independently associated with the knowledge of abortion legislation. This might be because such women were more likely to have better access to information and information sources.

Similarly, health club membership, access to information about emergency contraceptives, and knowing someone who has had induced abortion were associated with knowing that abortion was legal under certain circumstances in Ethiopia.

This shows that health club members are more likely to obtain information about the legal grounds on which abortion is permitted. Likewise, those who had exposure to information on emergency contraceptives appeared to have had knowledge of the legal provisions for abortion, possibly indicating access to broader reproductive health information. This finding is supported by a study done in South Africa (1). On the other hand, knowing women with induced abortion increased the odds of knowing the legal grounds. This shows that open discussion about abortion practices might increase awareness about abortion laws.

In conclusion, these findings indicate that there is a substantial lack of information among women on the legal status of abortion. Only liberalizing the abortion law is not the most effective way to prevent illegal abortions. Greater efforts need to be made to ensure that all Ethiopians know that they have legal rights to abortion under certain circumstances, and that they know the procedures necessary for obtaining a legal abortion if required. Because this study has the following limitations, generalization of the findings should be made with caution. It shared the limitations of cross sectional studies i.e. the difficulty of determining causal relationship between the variables. Social desirability bias may have resulted in underreporting of induced abortion. Recall bias may also affect responses about events to some of the responses. But, the associations uncovered in this study are helpful in shaping the strategies for alternative advocates in Ethiopia. Conveying this information is important in itself, because those who knew abortion was legal under certain circumstances tended to have more liberal views suggests that knowing that abortion is legal is an advantage to make it more acceptable(15,16).

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