

## SAFE INDUCED ABORTION: KNOWLEDGE AND ATTITUDE AMONG MEDICAL INTERNS OF ADDIS ABABA UNIVERSITY

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### ABSTRACT

**BACKGROUND:** Ethiopia has become one of the countries that have shown a significant reduction in maternal mortality concerning unsafe abortion after the revision of the abortion law that resulted in the legalization of abortion in certain circumstances since 2005. Medical interns are future physicians who will encounter many women in need of safe abortion in their careers. Their knowledge and attitude towards induced abortion will determine their practice.

**METHODS:** A cross-sectional descriptive study was conducted using self-administered questioner that was distributed among all 240 medical interns of Addis Ababa University, School of Medicine between September and October 2018.

**RESULT:** Two hundred and five medical interns have participated in the study with 85.4% response rate. Male respondents constitute 64.9%. The majority of the study participants, 63.1%, were followers of Orthodox Christian religion. Only 66% of the medical interns have the knowledge of all the indications for which the Ethiopia Abortion law permits safe abortion services. One hundred and ninety seven (96%) of the interns believe safe abortion is important but only 54% of them are willing to provide safe abortion services by themselves. The most common reason reported for not willing to provide a safe abortion service is a religion.

**CONCLUSION:** The study shows that most of the medical interns are aware of one or more of the indications to providing safe abortion under the current Ethiopian abortion law and that most have positive attitude towards the importance of safe abortion services but nearly half are not willing to provide safe abortion services.

(The Ethiopian Journal of Reproductive Health; 2020; 12;13-19)

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## INTRODUCTION

Abortion is the termination of pregnancy before the age of viability, which is 28<sup>th</sup> weeks in the Ethiopian context. Abortion is an issue that affects every country around the globe. In countries that have decriminalized abortion, women are spared of the dire consequences of illegal abortion. In many other countries wherein, abortion is a criminal act, however, illegal abortion is the major cause of maternal mortality and other serious health problems.<sup>1</sup>

Unsafe abortion has negative consequences beyond its immediate effects on individual women's health. Treating complications increases the economic burden on poor families and incurs considerable costs to already struggling public health systems.<sup>2</sup>

Ethiopia's legal regime about abortion has been changing through time. Any form of abortion was illegal in Ethiopia two decades ago. In 2004, Ethiopia has enacted a new Criminal Code that has radically reversed the highly restrictive position of previous laws on abortion. In May 2005, Ethiopia's new Criminal Code came into effect.<sup>1</sup>

According to Article 551 of the penal code of the Federal Democratic Republic of Ethiopia termination of pregnancy are allowed under the following conditions: when the pregnancy results from rape or incest when the continuation of the pregnancy endangers the life of the mother or the child or the health of the mother or where the birth of the child risk the life of the mother, the fetus has an incurable and serious deformity, women with physical or mental disabilities, minors who are physically or psychologically unprepared to raise a child. In the implementation of the law women who request termination of pregnancy after rape and incest are not requested to provide evidence or/and identify the offender. And in case of minority, no additional proof of age is required additional to the stated age by the client.<sup>3</sup>

The top four causes of maternal mortality in Ethiopia in the year 1980-1999 were abortion-related complications (31%), obstructed labor/uterine rupture (29%), sepsis/infection (21%), and hemorrhage (12%). In the next decade after the updated abortion law, however, the top four causes of maternal mortality were obstructed labor/

uterine rupture (36%), hemorrhage (22%), hypertensive disorders of pregnancy (19%), and sepsis/infection (13%). (4)

In 2014, there were an estimated 620,296 induced abortions in Ethiopia, resulting in a rate of 28 abortions per 1,000 women aged 15-49 annually, of which 53 % of them occurring in health facilities. The number of women receiving treatment in health facilities for complications of induced abortion is 103,648. (5)

Providers' attitudes have potential consequences for women's already with scarce access to safe abortion services. Safe public sector services are often not available for eligible women for reasons like providers bias, lack of medical equipment, or lack of trained personnel, and bureaucratic problem.<sup>6</sup>

The above data shows the burden on health professionals to provide comprehensive abortion care. Health providers are responsible for the provision of comprehensive abortion care services and are authorized to perform abortion procedures on women whose medical conditions warrant the immediate termination of pregnancy.<sup>7</sup> Medical interns are the future physician who will encounter many women in need of safe abortion in their careers. Their knowledge and attitude towards induced abortion will determine the practice of abortion and thus affects many.

In order to increase access to safe abortion, proper education of the service providers is essential. Physicians are being deployed to different areas of the country to give the service where they are involved in the provision of reproductive health services including abortion. Medical interns are one of soon to be abortion providers however, there is no abundant data that shows their basic knowledge regarding abortion practice and their attitude towards induced abortion. This study is aimed to fill this information gap.

## METHODS

A cross-sectional study was conducted in September 2018 at Addis Ababa University, college of health sciences, Ethiopia. All medical interns of Addis Ababa University during the study period were the source population. A total of two hundred five students (205) who gave consent for the study were included in the study.

The data was collected using a questionnaire in

English. A self-administered questionnaire structured with questions on demography, basic abortion-related knowledge, and attitudes towards induced abortion was distributed to all the study participants.

The data was distributed and then collected by an independent data collector. Data was checked manually and cleaned. The data was checked on daily basis of the data collection period by the data collector and the researcher acting as a supervisor. Before processing, the data was coded and cross-checked for completeness.

The analysis was performed using SPSS 20.0 software packages for statistical analysis. Appropriate measures of central tendency, frequency distribution, and cross tabulation were conducted. A p-value of less than 0.05 was considered a statistically significant association between assessed variables.

Protocol approvals were obtained from the Ethical Review Committee of the Department of Obstetrics and Gynecology of Addis Ababa University. Informed consent was sought before study enrollment

## RESULTS

Two hundred and five medical interns have participated in the study with an 85.4% response rate. One hundred and thirty-three (64.9%) male and 72(35.1%) female medical interns were enrolled in the study. The mean age of the study participants was 24.5 years (standard deviation of 1.26 years). The majority of the study participants, 129(63.1%), were followers of Orthodox Christian religion followed by Protestant Christian 36(17.6%) and Muslim 17(8.3%).

One hundred and ninety-one ( 93.2%) of medical interns know about the indications for induced abortion allowed under the penal code of the Federal Democratic Republic of Ethiopia but only 134 (66.3%) know all of the listed indications for providing safe abortion service. Some of the wrong indications for providing safe abortion services that were mentioned include gestational age is below 12 weeks, being married and financial incapacity to raise a child; 58(28.4%) of the medical interns believe that financial incapacity alone is one of the indications for providing safe abortion service. Five study participants (2.4%) believe that provision of abortion is illegal in Ethiopia. Nearly three fourth (71.4%) of the medical interns do not know that a

woman fulfilling the indication for safe abortion service should get the service within 72 hours.

Less than half (44.1 %) of the medical interns know that the preferred method of termination of pregnancy for the gestation of 9 weeks and less from LNMP. Sixty-six (32.2%) of the interns mentioned sharp metallic curettage as one of the safe methods of induced abortion in the first trimester. Hysterectomy was also mentioned as a safe abortion method by 35(17.2% )of study participants.

**Table 1: Socio-demographic characteristics of medical interns of AAU, 2018**

Demographic variables		Frequency	%
Marital status	Single	196	95.6
	Married	7	3.4
	Divorced	2	1
Place of Upbringing	Urban	151	73.7
	Semi-Urban	37	18
Sex	Rural	17	8.3
	Male	133	64.9
Religion	Female	72	35.1
	Orthodox Christian	129	62.9
	Protestant Christian	36	17.6
	Muslim	17	8.3
	Atheist	12	5.8
	Bahai	3	1.4
	Catholics	2	1
	Jehovah Witness	2	1
	Other	2	1
Missing	2	1	

Seventy seven (37.7%) medical interns reported the need for evidence of the actual age of the women like birth certificate, X-ray before provision of safe abortion service for minors. And 51(25.9% ) of the study subjects reported the need for evidence of `rape` before provision of safe abortion service for women reporting the pregnancy is a result of rape.

One hundred and ninety seven (96%) of medical interns reported that safe abortion is important in preventing maternal mortality and morbidity but only 110 ( 53.7%) of them are willing to provide safe abortion service by

themselves. Sixty nine (33.7%) of interns reported that even though they support the idea of safe abortion service but are not willing to provide the service by themselves and reported that they will refer the client so that the service is provided by other health professional. Twenty six (12.6 %) of the interns reported that provision of abortion service should be made illegal in Ethiopia.

The most common reason associated with unwillingness of medical interns to providing safe abortion service is religion. 77(59.7%) of followers of Orthodox Christians and 10(83.3%) of followers of Muslim religion are willing to provide safe abortion service as oppose to 30(83.3%) Protestant Christian religion and 2 (100%) Catholic Christian followers are unwilling to provide safe abortion service. (Table 2) Among the socio-demographic variables statistical significant association for willingness to provision of safe abortion is found with only religion (p-value: 001). Age , Gender, Marital Status, place of upbringing of the interns were found to be statistically insignificant with willingness to provision of safe abortion services. (Table 3)

**Table 2: Willingness to provision of safe abortion service among the different religion**

Religion of the intern	Willingness to provision of safe abortion		Total
	Willing	Not willing	
Orthodox Christian	77 (59.7%)	52(40.3%)	129(100.0%)
Protestant Christian	6(16.7%)	30(83.3%)	36(100.0%)
Muslim	10(58.8%)	7(41.2%)	17(100.0%)
Atheist	9(75.0%)	3(25.0%)	12(100.0%)
Bahai	2(66.7%)	1(33.3%)	3(100.0%)
Catholic Christian	0(0.0%)	2(100.0%)	2(100.0%)
Jehovah Witness	1(50.0%)	1(50.0%)	2(100.0%)
Others	2(100.0%)	0(0.0%)	2(100.0%)
<b>Total</b>	<b>107</b>	<b>96</b>	<b>203</b>

**Table 3: Comparison of sociodemographic characteristics by willingness to provide safe abortion**

Characteristics	Willing to provide safe abortion	Not willing to provide safe abortion	Chi square test of independence
<b>Gender</b>			
Male	77 (58.3%)	54 (41.7%)	0.132
Female	32 (44.4%)	40 (55.6%)	
<b>Marital status</b>			
Single	102 (53.6%)	88 (46.4%)	0.526
Married	5 (71.4%)	2 (28.6%)	
Divorced	2 (100%)	0 (0%)	
<b>Place of Upbringing</b>			
Urban	77 (51.6%)	72 (48.4%)	0.156
Semi-urban	24 (64.8%)	13 (35.2%)	
Rural	8 (47%)	9 (53%)	
<b>Religion</b>			
Orthodox Christian	77 (60.1%)	51 (39.9%)	0.001**
Protestant Christian	6 (16.6%)	30 (83.4%)	
Muslim	10 (58.8%)	7 (41.2%)	
Atheist	9 (75%)	3 (25%)	
Bahai	2 (100%)	0 (0%)	
Catholic Christian	0 (0%)	2 (100%)	
Jehovah Witness	1 (50%)	1 (50%)	
Others	2 (100%)	0 (0%)	

\*\*= P-value < 0.05

## DISCUSSION

This study shows that 134(66.3%) of the medical interns know all the indications for which the law permits safe abortion service. This is higher than the one reported among mid-level health professionals practicing in Addis Ababa, 53.1%. (8) Seventy seven (37.7%) of the study participants reported the need for evidence for age in minors and 53(25.9%) reporting the need for evidence of rape before provision of safe abortion service.

Even though prostaglandin analogues like misoprostol are preferred methods of pregnancy termination in the first trimester, 66 (32.2%) of medical interns reported sharp metallic curettage as preferred method of induced abortion in the first trimester. This figure is lower compared to a study done a decade back in Ethiopia

where 81% of service providers resorted to sharp metallic curettage and 17.2 % to hysterectomy.<sup>9 10</sup>

One hundred and ninety seven (96%) of the interns reported that safe abortion is important in preventing maternal mortality and morbidity, this is similar to studies done in Addis Ababa Health Facilities which showed majority of health providers stating abortion is a big public health problem.<sup>7,8</sup> It's also similar to a study in Maharashtra, India among medical interns.<sup>11</sup>

The finding from this study shows that 110(53.7%) of interns are willing to provide safe abortion service. In a study done at St Paul Millennium Medical College among different health care providers in Ethiopia, 70.8% of the respondents reported being "very willing" or "willing" to provide comprehensive abortion services.<sup>12</sup> And in a study conducted in Addis Ababa Health facilities among health care providers only quarter of the participants were willing to participate in pregnancy termination. (6) This difference in willingness in provision of safe abortion service probably can be attributed to the difference in the study participants; medical interns in our study as compared to Obstetrician and gynecologists, OB/GYN residents, Midwives and nurses in the later studies. The current result is higher as compared to a study done among medical students in South Africa which showed nearly one-quarter of students intended to perform abortions once they were qualified.

The study found a significant association between religion and willingness to provide safe abortion services. This is also evident in other studies; in a study done among medical students, interns, and healthcare personnel at Babol University of Medical Sciences, Iran religion was the main influencing factor to provide abortion care.<sup>13</sup> A study that was done in public hospitals of Mekelle, Ethiopia also showed that religion is the major contributing factor for the attitude of health providers towards abortion.<sup>14</sup> A systematic literature review in sub-Saharan Africa and Southeast Asia demonstrated that health care providers have conservative attitudes towards induced abortions with religious beliefs that affected these views, which is similarly reflected in this study. The conservative attitudes towards induced abortions among healthcare providers might also affect access to post-abortion care and, consequently, post-

abortion contraceptive counselling.<sup>15</sup>

Another study in Ethiopia stated the attitude of providers toward abortion were strongly influenced by their experience addressing the complications of unsafe abortion.<sup>16</sup> Even if the current study didn't assess the experience of each intern regarding complications of unsafe abortion, the decline of unsafe abortion has limited the interns from witnessing the complications of unsafe abortion at a tertiary hospital.<sup>4</sup> There is also a similar finding at St. Paul Millennium College which concluded that providers need to be made aware of the huge contributor of unsafe abortion to maternal mortality and morbidity to improve their attitude towards induced abortion.<sup>12</sup>

Age, Sex, Marital Status, place of upbringing of the interns were found to be statistically insignificant with willingness to provide safe abortion. A similar result was found on a study done on health care provides at Addis Ababa and another study in Mekelle where the variables were statistically insignificant in explaining attitude.<sup>6</sup>  
<sup>14</sup> In contrast a study done among health care providers in Adama, Ethiopia showed males have had favorable attitude than females (COR=1.689[1.121-2.546]) (17)

## CONCLUSION

The study shows that most medical interns are aware of one or more of the indications to providing safe abortion stated under the current Ethiopian abortion law and that most have positive attitude towards the importance of safe abortion services. Even though majority of the interns believe that safe abortion is important only half are willing to perform it. And religious believe is associated with the unwillingness to provision of safe abortion services.

## DECLARATIONS:

1. Ethics approval and consent to participate: Ethical clearance was obtained from the department of gynecology and obstetrics research and publication committee of Addis Ababa University. Written informed consent was collected from all of the participants of the study.
2. Consent to publication: Not applicable
3. Availability of data and materials: The datasets used

and/or analyzed during the current study are available from the corresponding author on reasonable request.

4. Competing interests: The authors declare that they have no competing interests.

5. Funding: this study has not been funded by any institution or organization

6. Authors contribution:

Kalkidan L., M.D: Proposal development, data collection, analysis and write up of the manuscript

Dawit W. M.D: Proposal development, analysis and write up of the manuscript

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