



## Attitudes of Medical Intern Students of Guilan University of Medical Sciences to the Ethical and Legal Principles of Abortion in 2019

### ARTICLE INFO

### ABSTRACT

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#### Background

Abortion is of particular importance worldwide. In Islamic law, this issue is also of great importance. Abortion is punishable under Article 624 of the Islamic Penal Code for physicians and midwives (whether a steward or deputy has two to five years in prison and abortion has full blood money after four months, given that this is of particular importance. This study has not been conducted among medical students of Guilan so far, so in this study, we have evaluated the knowledge of medical students of Guilan University of Medical Sciences about abortion laws and regulations.

#### Materials and Methods

This is a cross-sectional analytical study among interns of Guilan University of Medical Sciences. The researcher-made questionnaire was distributed among 125 randomly available students. The questionnaire was distributed among interns located in Guilan University of Medical Sciences teaching hospitals after validity and reliability. Data were analyzed by SPSS 21 software and analyzed by descriptive statistics, correlation, and chi-square tests. The significance level in this study was  $p < 0.05$ .

#### Ethical Considerations

Honesty and ethical considerations have been observed.

#### Findings

In this study, 125 interns of Guilan University of Medical Sciences were studied. All of them were 97.3% Shia and 2.7% Sunni. The mean age of participants was 26.05  $\pm$  1.97 years. 48% (60 students) of the study participants were male, and 52% (65 students) were female. 95.38% (62 students) of female students had no history of abortion. 93.33% ( $n = 56$ ) of students attending abortion had no history of abortion. 89.26% ( $n = 108$ ) of students participating in abortion had no history of abortion for patients. 98.29% (115 students) of the study population had no history of infertility. The mean score of the attitude of interns of Guilan University of Medical Sciences toward abortion was 113.59  $\pm$  15.77 with a minimum score of 82 and a maximum score of 155. Also, there was no significant difference between students' attitude toward abortion with age, gender, marital status, history of abortion in spouse and patient ( $P$ -value  $< 0.05$ ).

#### Conclusion

According to the study results, where students' awareness was at a reasonable level, it seems that ethical and legal teaching should be effectively incorporated into academic courses and retraining programs and workshops to increase the ethical and legal awareness of medical staff. Be held to prevent the student from knowingly dropping out of school.

#### Key words

Attitude, Knowledge, Abortion, Medical Students.

#### How to Cite this Article

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## **INTRODUCTION**

Removing pregnancy products before they are viable is called an abortion [1]. Among the types of abortions, therapeutic and criminal abortions can be mentioned. Termination of pregnancy is called medical abortion due to medical necessity [2]. Abortion therapy (legal) is usually performed when the continuation of the pregnancy is dangerous for the mother and aggravates the disease's complications, and her condition worsens.

Also, in cases where the fetus is defective and has less than four months of age, abortion treatment will be allowed with the judicial authorities' permission and a forensic medical certificate [3]. With medical advances in recent years, hospital abortions have been significantly reduced, and every year the number of people with heart disease, kidney disease, hypertension, tuberculosis, and other threatening conditions have the opportunity to terminate their pregnancy [2].

Criminal abortion refers to removing the fetus from the uterus, except in scientific or non-scientific cases, which is intentional [4],[5]. From the Islamic point of view, abortion is a criminal offense, and the punishment for performing an abortion before four months is the payment of blood money, and killing the fetus after four months is considered premeditated murder [6]. Abortion is of special importance all over the world, and it has been given much

priority in Islamic laws so that according to the Islamic Penal Code, the punishment for abortion for doctors and midwives (either steward or deputy), 2 to 5 The year of imprisonment is predicted and the abortion after four months has full blood money [7],[8].

In medical ethics, too, no issue has influenced public opinion as much as abortion [9]. Also, the view of the followers of the school of conscientiousness about abortion is different, so that some consider the legality of abortion in line with the right to life, liberty, and physical health of women, but some prioritize the right to abortion. In order to make an ethical decision about abortion, it is necessary to pay attention to issues such as the wishes of the mother (pregnant woman), the moral desires of the fetus, the stage of fetal development, the existence of contradictions, the moral evaluation of abortion in society [10],[11].

According to the World Health Organization, one-eighth of all deaths due to pregnancy are due to illegal abortions [12]. Also, according to the World Health Organization, every year, two hundred thousand women, that is, one woman every minute, lose their lives due to the complications of abortion and the factors resulting from its illegality. 99% of these deaths and complications occur in developing countries [13].

In Iran, according to a study conducted by the Forensic Medicine Organization, in a period of one year from January 2003 to January 2004, medical abortions in 64% of cases were due to fetal abnormalities, and 36% of patients were due to maternal disease. The essential fetal abnormalities were assigned to anencephaly and thalassemia major, and the most important maternal disease was given to the cardiovascular disease. Also, the average age of mothers at the time of issuing a permit for abortion was 29.4 years, and the average age of the fetus was 12.8 weeks [14]. In the study of Qadi Pasha et al., Who examined abortion permits in the General Directorate of Forensic Medicine of Kerman province in 2005, 68% of the permits issued were due to fetal abnormalities, and 32% were related to maternal diseases. The mean age of the fetus is 17 years, and the mother's mean age is 29 years [15].

In another study that examined the knowledge of obstetricians and midwives in Kerman about the rules and regulations of abortion in 2008, out of 143 people, 15.4% had moderate knowledge, and 84.6% had good knowledge. Education and level of knowledge and a significant relationship between job status and level of knowledge [16]. In a study by Moeini et al., Which compared intentional abortions with spontaneous abortions in gynecological hospitals between 1992 and 1995, out of 115 pregnant women diagnosed with abortion, 9.1% had an intentional abortion. In this

study, abortion was performed illegally and in most cases by personnel in unknown places [13].

Given the importance of abortion globally, especially in Islamic law and ethics, it is necessary to have sufficient knowledge and information about the legal aspects of abortion to avoid the consequences. Also, considering that medical students are providers of health services in the future and due to the need for a professional attitude towards issues, especially abortion, the purpose of this study is to examine the attitudes of medical students about the ethical and legal principles of abortion.

## **MATERIALS AND METHODS**

This study is a cross-sectional analytical study. Medical intern students of Guilan University of Medical Sciences entered the study by available random sampling method over four months (from August to November 1998). Inclusion criteria for all medical interns of Guilan University of Medical Sciences and exclusion criteria were non-response to less than 75% of the questions and unwillingness to continue the research. The sample size with a 95% confidence interval and 0.05 error level, based on Barfar et al.'s research, 125 out of a total of 250 intern students of Guilan University of Medical Sciences, were determined. A researcher-made questionnaire was used to collect information in this study.

The first part of the questionnaire included age, gender, religion, religion, marital status, history of abortion (in women), history of abortion in a spouse (in men), history of abortion for the patient, and infertility history. The second part of the questionnaire contained 36 items about students' attitudes toward abortion. To determine the questionnaire's validity using the content validity method, the questionnaire was provided to 7 faculty members.

The CVR of each question was obtained based on the answers, and the questions that had coefficients below 0.7 were removed and since the CVR of the questions was 0.78, all the questions remained in the questionnaire. The CVR of the questions totaled 0.78, which was thus confirmed in the content. The CVI index study in terms of relevance, clarity, and acceptance of all questions had a CVI value above 0.8, and the CVI index was 0.79.

In the study of the reliability of the questions using correlation coefficients and the degree of agreement of individuals in answering the questions in two stages, it was more than 80%, and this indicated the high reliability of the questions (professors' views) in how to evaluating the student's dissertation. The standard tool is scored in such a way that the answers in this tool are arranged in the form of a 5-point Likert scale and are rated from 1 to 5 (completely disagree, disagree, have no opinion, agree, strongly agree). A maximum score of 180 and a minimum score of 180 are considered.

The researcher, after obtaining permission from the Vice Chancellor for Research of Guilan University of Medical Sciences and providing the necessary explanations to students about the objectives and method of study, voluntary participation in the study and confidentiality of information, distributed the questionnaire among medical students. To analyze the collected data, the information using SPSS ver. 21 and with the help of descriptive statistics, correlation tests and chi-square test were examined. In all cases, a significance level of less than 0.05 was considered.

## **FINDINGS**

According to the results of the study, the majority of students (65%) were female. The participating students' mean age was 26.05 with a standard deviation of 1.97, and the minimum age was 24 years, and the maximum age was 36 years. All students were Muslim, of whom 97.3% were Shiites, and 2.7% were Sunnis. Among female students, 62.4% had a history of abortion, and 67.6% had a history of abortion among male students. 93.33% of male students, their spouses had no history of abortion, and 6.67% of male students had no history of abortion. Findings show that the mean and standard deviation of all students' attitudes towards abortion is  $7/15 \pm 5/113$  and, by gender in male and female students, is  $84/14 \pm 15/112$  and  $57/16 \pm 92/114$ .

Also, based on the results, the mean and standard deviation of the attitudes of single

and married students towards abortion were  $85/15 \pm 8/113$ ,  $83/16 \pm 92/115$  and the mean attitudes of students who did not have a history of abortion, respectively  $38/15 \pm 59/113$  and students who have a history of miscarriage by themselves or their spouse is  $10/18 \pm 105$ . (Table 1)

*Table 1. Students' attitudes toward abortion based on gender, marital status, and history of abortion.*

		No	Average	Standard deviation	Min	Max
Gender	M/F	125	75920/113	776598/15	82	155
	M	60	112/15	14/84	84	152
	F	65	114/92	16/57	82	155
Marital Status	Single	90	113/8	15/85	82	152
	Married	24	115/92	16/83	86	155
	Other	11	106/82	11/48	84	124
History of Abortion	Yes	7	105	18/10	84	141
	No	113	113/59	15/38	82	155

In examining the relationship between students' attitudes score with age, gender, marital status, and history of abortion of their spouse, the nonparametric correlation test results showed that there is no statistically significant difference between students' attitudes toward abortion score with the above (Table 2).

*Table 2. The correlation coefficient of students' attitudes toward abortion.*

	Number	Spearman correlation coefficient	P-value
Age	114	0/044	0/643
Gender	102	0/162	0/104
Marital Status	92	0/06	0/571
History of abortion	120	0/142	0/121

The mean and standard deviation of abortion attitudes scores in students who did not have a history of abortion for patients and

students who had a history of abortion for patients were  $37/15 \pm 55/114$  and  $24/16 \pm 23/104$ , respectively.

The mean and standard deviation of other students' abortion attitudes was  $64/18 \pm 118$ . (Table 3)

*Table 3. The score of students' attitudes toward abortion by the history of abortion for patients.*

		No	Average	Standard deviation	Min	Max
History of abortion	No	108	114/55	15/37	82	155
	Yes	13	104/23	16/24	84	130
	Other	4	118	18/64	98	138

In the study of students' attitude score by infertility history, the results showed that the mean and standard deviation of the attitude score of students who did not have a history of infertility towards abortion was  $68/15 \pm 31/113$ , the mean attitude score of students with a history of infertility towards abortion was  $33/23 \pm 5/100$ . The mean score of other students' attitudes toward abortion was  $46/14 \pm 87/120$ . (Table 4)

*Table 4. Students' attitudes toward abortion score by the history of infertility.*

Number		Average	Standard deviation	Min	Max	No
History of abortion	No	115	113/31	15/68	82	155
	Yes	2	100/5	23/33	84	117
	Other	8	120/87	14/46	98	139

## DISCUSSION

This study was conducted to determine the attitude of medical interns of Guilan University of Medical Sciences on the ethical and legal principles of abortion. The

results showed that the average score of Guilan University of Medical Sciences attitude towards abortion is approximately equal to 114, which is a good score.

The results of this study were in line with some studies. For example, in a study conducted in 2008 to examine the knowledge of gynecologists and midwives in Kerman about the rules and regulations of abortion, the results showed that a large percentage of people have good knowledge. [17].

Also, in the study of Sakineh Barfar et al., 81.2% of medical students were well aware of the complications of illegal abortion. In the study of Fazeli et al., most obstetricians had moderate knowledge about the rules of medical abortion.

But the results of the study of Kazemzadeh et al. Showed that most students had moderate knowledge. In a similar study conducted in Yazd, most people (39.1%) had moderate knowledge [18].

In a study conducted in Australia on the medical profession's legal aspects, only one-third of the physicians surveyed had good and acceptable knowledge [19]. The present study results showed no significant relationship between students' attitudes toward abortion with age, gender, marital status, history of abortion in their spouses and patients.

However, in the study of Kazemzadeh et al., The level of knowledge of male students was higher than female students. This highlights the need to educate more female students in some cities other than Rasht, which, given the current state of society, are

likely to deal more with abortion issues in the future.

One of the limitations of this study is that this study is limited to Guilan University of Medical Sciences students, so the researcher suggests more studies to examine other medical universities' attitudes in the country.

## **CONCLUSION**

According to the study results, students' attitudes were right; it seems that moral and legal teachings should be effectively included in university courses.

Also, retraining programs and workshops should be held to increase the medical staff's moral and legal awareness to prevent the reduction of people's knowledge due to the distance from the time of the study.

Undoubtedly, taking such measures will reduce medical groups' judicial problems and help increase the pregnant women community's health.

Ethical awareness and knowledge about the beginning of life are very important in the health system. The daily challenges of abortion are increasing. A significant point is the moral and legal commitment of a health professional to fulfill professional obligations.

In many cases, even if the health professional has a heart belief or religious belief contrary to the abortion in the legal indications, he can not prevent the work and refer the patient to him if there is another specialist.

However, if the person is not eligible in that area, the health professional must perform

the treatment. However, it is important to note that as far as financial, medical, and hopeful possibilities are concerned, abortion therapy should also be avoided. Challenges to fetal screening should also be addressed with a clear and explicit approach.

### **ETHICAL CONSIDERATION**

All ethical considerations have been observed.

### **AUTHOR CONTRIBUTIONS**

Planning and writing of the manuscript was done by the authors.

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None.

### **CONFLICT OF INTEREST**

No conflict of interest was reported by the author.

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