

# The knowledge and attitudes of midwives regarding legal and religious commandments on induced abortion and their relationship with some demographic characteristics

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## ABSTRACT

**Background:** Induced abortion is an important medical issue. Knowledge and attitude of midwives regarding legal and religious commandments on induced abortion can be useful in confronting this issue. The aim of this study was to assess the knowledge and attitudes of midwives of Isfahan regarding these rules and to find their relationship with demographic characteristics.

**Materials and Methods:** This was a cross-sectional, descriptive, and analytical study. The study participants consisted of 189 midwives working in hospitals, health centers, private gynecology clinics, and university. Random quota sampling method was used. Data were collected using a researcher-made questionnaire. Data were analyzed using mean, frequency distribution tables, Pearson correlation, and Spearman's coefficient. For all tests, an error of less than 0.05 was considered.

**Results:** The majority of the participants had extremely low to moderate (73%) knowledge about the subject of the study. Their attitudes toward effective implementation of these rules were mostly extremely weak to moderate (68.72%). No correlation was observed between knowledge, age, work experience, and education. However, there was a relationship between the level of knowledge about these rules and the location of service. There was no significant correlation between attitude and demographic characteristics.

**Conclusion:** Due to less knowledge of the midwives and their low attitude score in this regard, training them, improving their attitude toward these issues, and effective implementation of these laws are necessary. Therefore, by identifying the factors affecting the formation of attitudes and the level of knowledge, more constructive proceedings can be taken to promote them.

**Key words:** Abortion, induced abortion, Iran, knowledge, legal, religious, religious commandments

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## INTRODUCTION

Knowledge means knowing the facts. Increasing the knowledge in a particular field is one of the methods that ensure full compliance with the principles. Moreover, obtaining information on individuals' level of knowledge on a specific subject can be an essential first step in developing a training program.<sup>[1]</sup> Attitudes are probably the most distinctive and the most essential concepts of

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contemporary social psychology. The reason for their importance is their influence on behavior.<sup>[2]</sup> Abortion is the spontaneous or induced termination of pregnancy before the fetus is viable. Induced abortion refers to the termination of pregnancy using medical or surgical procedures before the fetus becomes viable. It is categorized into two groups of therapeutic abortion and voluntary or optional abortion.<sup>[3]</sup> Therapeutic abortion refers to the termination of pregnancy before the fetus becomes viable, due to maintenance of the mother's health or fetal diseases.<sup>[4]</sup> Voluntary or optional abortion refers to the termination of pregnancy before the fetus is viable, on mother's request, but not done for medical reasons.<sup>[3]</sup> In Iran, voluntary abortion is illegal. Criminal abortion is the voluntary termination of pregnancy and abortion of a fetus which does not have the ability to live outside the uterus, without obtaining legal permission from the competent authorities. Based on the criminal justice system of the Islamic Republic of Iran, this is a criminal act and has criminal penalties.<sup>[3]</sup> From the perspective of the laws and regulations of the Islamic Republic of Iran, the only permitted abortion is therapeutic abortion.<sup>[5]</sup> Around the world, 38 million induced abortions are performed annually, 56% of which are unsafe.<sup>[6,7]</sup> Unsafe abortion is the reason for 9% of maternal deaths in the world.<sup>[8]</sup> Depending on the method used, illegal abortions can cause many complications. These effects range from bleeding to the death of the mother.<sup>[9]</sup> Unofficial experiences of midwifery practitioners show that illegal abortion exists in Iran and is mostly performed secretly and by non-experts. Besides the mothers' personal acts regarding abortion, these centers cause complications and mortality in women.<sup>[5]</sup>

A method that can be effective on issues related to induce abortion is focusing on the medical team involved including the midwives. There has been growing attention toward the field of midwifery in the past 10–20 years due to the WHO's recognition of midwives as the most suitable medical team to take care of women during pregnancy, childbirth, and post-partum.<sup>[10]</sup> Midwives are frequently faced with people who are seeking abortions.<sup>[11]</sup> In the Islamic civilization, it is a common belief that Islam, with its own comprehensiveness, provides the latest and the best ways to solve social problems and other problems that humanity is faced with. Therefore, all those faithful to Islam believe that personal and social discommandments, including the scourge of abortion, can be treated by relying on the teachings of Islam.

One of the duties of midwives is providing training for women on different issues such as legal and ethical issues related to abortion.<sup>[11]</sup> Their attitude can affect the attitude of the women.<sup>[12]</sup> Thus, attention to knowledge and attitude of midwives regarding the legal and religious commandments related to midwifery is important. Appropriate knowledge

of healthcare providers, especially midwives, regarding authorized cases of therapeutic abortion can reduce a great amount of illegal abortions. As a result, it can decrease the inconveniences caused for pregnant women and their families, as well as medical personnel.<sup>[13]</sup> Due to the impact of knowledge and attitude on individuals' performances,<sup>[14]</sup> this study aimed to assess the knowledge and attitudes of midwives regarding legal and religious commandments on induced abortion and their excitability and effectiveness, and its relation to demographic characteristics.

## MATERIALS AND METHODS

This descriptive, analytical, cross-sectional, single-stage study was conducted in August and September 2014 in Isfahan, Iran. The total number of MS and BS midwives in Isfahan was about 550 people; of these, 189 working midwives participated in this study. Quota random sampling method was used. Inclusion criteria included having an MS or BS degree; working in health centers, private gynecology clinics, hospitals, or Isfahan University of Medical Sciences; and lack of education of the midwife or her immediate family in the field of Islamic studies or law. The data collection tool was a researcher-made questionnaire. By referring to the centers, the required information was collected and the questionnaire was completed by the subjects. The questionnaire contained 25 questions in three distinct parts. The first part consisted of four questions about demographic characteristics (age, work experience, education, and work place). The second part consisted of 13 questions regarding knowledge about religious and legal commandments on induced abortion, and awareness of legal and religious rules on induced abortion was examined based on the obtained scores. The third part consisted of eight questions about their attitude toward the implementation and effectiveness of legal and religious commandments on induced abortion. These questions were designed based on a Likert scale (1–5) of completely agree, agree, neutral, disagree, or strongly disagree. Scores were calculated for a total of 100 and they were classified into groups of 20: 0–20 (extremely weak), 20–40 (weak), 40–60 (medium), 60–80 (good), and 80–100 (very good). Data were analyzed using SPSS software (version 19; SPSS Inc., Chicago, IL, USA) and descriptive–inferential statistics (frequency, mean, standard deviation, and Pearson correlation coefficient).

Content validity was used in this study to determine the validity of the data gathering tool. The researcher prepared the questionnaire by studying books and articles published in this field. The questionnaire was then examined regarding the quality of the content by a number of legal and religious experts. After collecting their opinions, necessary changes were implemented and the final questionnaire was

developed. Reliability assessment of the data gathering tool was conducted as test–retest on the basis of a pilot study conducted on 20 individuals similar to the study population. The internal validity of the questionnaire was confirmed using Cronbach’s alpha ( $\alpha = 0.75$ ). After receiving permission from the Ethics Committee of the university, an introduction letter and explanation about the purpose of the study were provided for the midwives working at the centers. The participants completed informed consent forms. Then, the questionnaires were distributed among the study participants and were completed by them.

## RESULTS

The number of subjects in this study was 189 and most of them were aged 30–34 years [Table 1]. In addition, 48.7% of the participants had less than 5 years of work experience and their mean work experience was 8.5 years.

**Table 1: Distribution of age frequency and mean in units**

Age groups, years	Frequency (%)	Percent
<25	29	15.3
25-29	42	22.2
30-34	48	25.4
35-39	31	16.4
40-44	18	9.5
45-50	19	10.1
>50	2	1.1

**Table 2: Distribution of education and workplace in units**

Variable	Variable levels	Frequency (%)	Percent
Education	MS	169	89.4
	BS	20	10.6
	Total	189	100
Workplace	Health center	29	15.3
	Private office	37	19.6
	Hospital	114	60.3
	University	9	4.8
	Total	189	100

Absolute and relative frequency distribution of the subjects regarding education and the place of work are shown in Table 2. Absolute and relative frequency distribution of the subjects regarding their knowledge and attitudes are presented in Table 3. Only 0.5% of the subjects had very good knowledge of legal and religious commandments on induced abortions. Knowledge of 33.8% of the subjects was weak regarding religious commandments, and knowledge of 38.6% was weak regarding legal commandments. Most of the subjects (52.9%) had an attitude score of 40–60. There was no significant positive relationship between the level of knowledge, and age and work experience ( $r = 0.045$ ,  $r = 0.037$ ). There was also no significant relationship between attitude, and age and work experience ( $r = 0.039$ ,  $r = 0.016$ ). There was a significant positive correlation between knowledge about legal commandments on induced abortion and workplace. However, there was no significant correlation between the level of knowledge and attitude, and education level.

## DISCUSSION

Mean age of the participants was 33.39 (7.40) years and their mean work experience was 8.63 year. The highest frequency was related to the age group of 30–34 years and work experience of less than 5 years. In the study conducted in 2011 by Ghadi Pasha *et al.* on the awareness of gynecologists and midwives regarding therapeutic and criminal abortion laws, the mean age of the subjects was 33.8 years.<sup>[13]</sup> This was consistent with the present study results. In the study by Banaiian and Sereshti on the knowledge of midwives regarding legal and religious commandments of midwifery, 66.2% of the participants were technicians, 25.2% were undergraduates, and the rest were postgraduates.<sup>[14]</sup> However, in the present study, due to the lack of specialized midwifery activities for lower than undergraduate levels of midwifery, this group was not included in the study. Therefore, the present results cannot be compared with those of the mentioned study. Nevertheless, regarding the workplace, in both studies, most of the participants were hospital employees. In

**Table 3: Absolute and relative frequency distribution of knowledge and attitude**

Field knowledge level	n (%)			
	Knowledge about religious commandments of induced abortion	Knowledge about legal commandments of induced abortion	Total knowledge	Attitude about religious and legal commandments of induced abortion
0-20 (very weak)	14 (7.4)	22 (11.64)	9 (4.76)	1 (0.52)
21-40 (weak)	64 (33.86)	73 (38.62)	68 (35.97)	11 (5.8)
41-60 (average)	20 (10.58)	76 (40.21)	61 (32.27)	118 (62.4)
61-80 (good)	63 (33.33)	18 (9.52)	50 (26.45)	57 (30.15)
81-100 (very good)	28 (14.81)	0	1 (0.52)	2 (1.05)

fact, the study populations of the two studies have little differences.

Regarding the second part of the study, the results showed that the majority of the subjects had very weak to moderate levels of knowledge about the legal and religious commandments on induced abortion. Haji Foghaha and Keshavarz, in their study, compared the knowledge of working midwives in midwifery offices, health centers, and hospitals regarding the Islamic penalty laws related to medical care in Shiraz, Iran, in 2007.<sup>[15]</sup> They found that 2% of the midwives had very little knowledge about the professional rules, 61% had little knowledge, 21% had moderate knowledge, and only 2% had a good level of knowledge.<sup>[15]</sup> This shows that 84% of the participants had weak to moderate level of knowledge. In the present study, knowledge was at a higher level compared to that in the study by Haji Foghaha and Keshavarz. This increase in the present study can be due to the fact that university staffs were also included in the present study. This factor can increase the level of knowledge. In addition, the present study only measured the awareness of subjects on the religious and legal commandments on induced abortion. The midwives frequently deal with this matter; therefore, they require more education and further studying in this field. This could explain the differences between this study and the study by Haji Foghaha and Keshavarz regarding the level of awareness and knowledge. In this study, mean attitude toward the effective implementation of legal and religious commandments on induced abortion was 55.48 (10.99) out of 100. A study conducted in Jamaica on the attitude and knowledge of midwives toward induced abortion showed that more than 70% of the participants were unanimous in that access to induced abortion should be expanded.<sup>[16]</sup> Moreover, more than 75% of the participants believed that more accessibility to abortion reduces maternal mortality.<sup>[16]</sup> In contrast with the present study, this study did not specifically examine the attitudes of the subjects toward abortion laws. However, their general attitude was determined, and as mentioned, most people believed that to reduce complications, more people should be subjected to the licensing of induced abortion. In the present study, more than half of the participants believed that the legal and religious commandments on induced abortions can be implemented in Iran. Perhaps the rest of them, like the midwives in the study mentioned above, believed in increasing the number of people subjected to licensing of induced abortion.

In this study, no statistically significant relationship was observed between age and overall awareness, awareness of religious commandments, and awareness of legal commandments. In the study by Ghadi Pasha *et al.*, there was no significant correlation between the level

of knowledge and age of participants.<sup>[13]</sup> This was in agreement with findings of the present study. This result can be explained that increase in age may not be an affective factor in feeling the need to improve awareness regarding this issue. Therefore, planning for increased awareness, both by the authorities and midwives, for all the subjects at any age is necessary.

There was no significant correlation between work experience, and overall knowledge, awareness about religious commandments and legal commandments in this study. In the study by Ghadi Pasha *et al.*, there was no significant relationship between the level of knowledge and work experience of the participants.<sup>[13]</sup> This finding was consistent with the present study results. Failure to provide more information for midwives in the form of classes and workshops on the studied subject is probably the reason for this finding. Midwives' unwillingness to obtain more information, their high involvement in the workplace, and their activities becoming a routine can be the other reasons for this finding. It seems that, encouraging midwives to obtain more information firstly, and then, attempting to hold educational courses can be effective in increasing the awareness of midwives in this regard.

Amir Esmaili *et al.* performed a study on the knowledge, attitude, and practice of nurses at hospitals in relation to the overall principle of precaution.<sup>[17]</sup> Their findings showed that there was no significant relationship between work experience, level of awareness, and attitude.<sup>[17]</sup> This result was consistent with the results of the present study. As mentioned earlier, it seems that education in the field of legal induced abortion was weak for most midwives. It is also necessary to encourage midwives to enhance their knowledge by studying more about religious laws.

In this study, no statistically significant differences were observed in the mean scores for general knowledge, knowledge about religious commandments, and awareness of legal laws among undergraduate and postgraduate midwives ( $P > 0.05$ ). In the study by Banaiian and Sereshti on midwives' knowledge of the legal and religious commandments of midwifery and some factors related to it, there was no significant relationship between awareness and the level of education.<sup>[14]</sup> In the present study, there was a statistically significant difference between the mean scores of overall awareness and legal awareness with regard to the workplace of midwives in Isfahan ( $P < 0.05$ ) [Table 4]. In the study by Haji Foghaha and Keshavarz, data showed that the mean score of knowledge of midwives working in midwifery offices was lower than that of those working at hospitals and clinics.<sup>[15]</sup> These findings were similar to the present study results. However, in the present study, the awareness of university midwives was also assessed and

**Table 4: Comparison between participants' knowledge and attitudes with the place of work**

Knowledge or attitude	Workplace M (SD)				ANOVA	
	Health center 15.3 (29%)	Private gynecology clinics 19.6 (37%)	Hospital 60.3 (114%)	University 4.8 (9%)	F	P value
Knowledge about religious commandments of induced abortion	34.02 (51.72)	27.73 (46.84)	26.11 (55.55)	20.03 (62.96)	1.32	0.268
Knowledge about legal commandments of induced abortion	19.42 (40)	16.22 (39.19)	14.13 (46.57)	52.22 (16.41)	3.65	0.014
Total knowledge	20.41 (42.7)	40.95 (39.12)	13.17 (47.65)	13.01 (54.7)	3.78	0.011
Attitude about religious and legal commandments of induced abortion	9.01 (56.14)	12.86 (59.95)	10.98 (55.86)	7.72 (59.02)	1.04	0.374

ANOVA: Analysis of variance, M: Mean, SD: Standard deviation

only the topic of induced abortion was examined. There was no statistically significant difference between attitude, age, working experience, education level, and workplace in the present study. Aiyer *et al.* studied the impact of physicians' attitudes toward the tendency to perform abortions.<sup>[12]</sup> They found a significant relationship between abortion and attitude toward abortion, but no significant relationship between abortion, age, and gender.<sup>[12]</sup> The characteristics studied in the present study were only similar to the mentioned study regarding age in that there was no relationship between age and attitude. With the increase of age, attitude does not change. Therefore, it can be concluded that attitudes form at a young age, and thus, attempts should be made to correct the orientation of attitudes at a young age.

In the study by Rosenblatt *et al.* on the attitudes of physicians and their activities, there was no significant relationship between attitude and work experiences.<sup>[18]</sup> The findings of the study by Amir Esmaili *et al.* showed that there was no significant relationship between work experience and attitude.<sup>[17]</sup> The findings of these two studies were consistent with the present study results. In fact, increase in work experience has not caused any changes in the individuals' attitudes and, hence, cannot be expected to cause improvement in attitudes through its increase. In fact, it is necessary to look for other variables by which to improve the midwives' attitudes regarding the implementation and effectiveness of laws.

## CONCLUSION

Although induced abortion is an important issue in the field of midwifery, knowledge and attitude of midwives regarding their legal and religious commandments were not desirable in this study. Therefore, the improvement of midwives' awareness and changing their attitudes toward implementation and effectiveness of legal and religious commandments on induced abortion through measures such as conducting classes and workshops are recommended. Furthermore, given that there was no

relationship between awareness and education, improving the quality of education in universities at all educational levels is recommended.

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## Conflicts of interest

There are no conflicts of interest.

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