Relationship of Knowledge and Attitude Towards Legal Abortion Laws with the Performance of Midwives in Qazvin, Iran

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Abstract

Background and Objectives: Abortion is one of the main causes of maternal mortality. The lack of knowledge of physicians and midwives about the abortion laws can lead to the deficiency of presenting accurate information to pregnant women, and consequently to increase unsafe abortions. The purpose of this study was to assess the relationship of knowledge and attitude towards legal abortion laws with the performance of midwives in Qazvin, Iran.

Methods: This descriptive-correlational study was conducted on 122 midwives with private offices in Qazvin, Iran, from May to September 2012. The subjects were chosen according to the convenience sampling method. After obtaining informed consent for participation in the study, four questionnaires, including demographic characteristics, knowledge, attitude, and performance questionnaires were distributed by the researcher among the referrals.

Results: The obtained results showed that approximately half of the midwives had good knowledge about abortion laws (55.7%); however, their attitude towards abortion laws was mostly negative (86.9%). In addition, their performance of abortion was reported as average (60.7%). There was no significant relationship between the knowledge and midwifes' performance; however, a significant statistical relationship was observed between their attitude and performance.

Conclusion: Regarding the fact that providing abortion services is one of the healthcare strategies for preventing the complications of unsafe abortion, it is advised to increase the knowledge level of medical personnel by including the relevant courses in the university, holding retraining courses and congresses on the issue of abortion, and informing new guidelines.

Keywords: Attitude, Knowledge, Legal abortion, Midwife, Performance.

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Introduction

Abortion is the termination of pregnancy before 20 weeks of gestation or with the fetus weight less than 500 g at birth (1). Generally, abortion falls into three categories, including spontaneous or habitual abortion, criminal or illegal abortion, and therapeutic or legal abortion (2). The World Health Organization estimates that approximately 50,000,000 pregnancies (25%) annually lead to abortion (3). In this regard, the complications of illegal abortion are more than those of other abortions. Moreover, the complications of illegal abortion are among the most common causes of hospitalization in developing countries (4).

Most mothers placed in an unsafe abortion situation refer to the hospital only after serious complications; therefore, many cases of induced abortion are never recorded and reported. An estimated assessment provided by the Ministry of Health and Medical Education indicated that 80,000 abortions annually occur in Iran (5).

Today, due to medical necessity, a pregnancy can be intentionally terminated that is called therapeutic abortion. In general, the reasons for issuing the therapeutic abortion license in different parts of the world include economic situation, individual's request, protection of mother's life, rape-induced abortion, and congenital abnormalities (6). However, the law of abortion was legalized in Iran in 2005.

According to this article, "therapeutic abortion through definitive diagnosis of three specialists and the confirmation of the National Forensic Medicine Center based on fetal illness that due to retardation or malformation causes maternal suffering or maternal illness associated with maternal physical threat is legalized before the existence of soul (4 months of gestation) with the woman permission. Moreover, no penalty or responsibility will be considered for the specialist or supervisor". According to the aforementioned article, any kind of embryonic anomalies, which causes maternal intolerable suffering after birth, or any maternal illness that accompanies the pregnancy with maternal physical threat will be subject to this law (6).

Currently, the Ministry of Health and Medical Education has been trying to control the illegal abortion statistics by issuing legal abortion indications emphasizing the timely identification of pregnant mothers, their referral for routine screening, and referral of mothers with difficulty to relevant obstetricians. On the other hand, legal and religious restrictions regarding abortion are among the ways for the prevention of social anomalies.

In a study conducted by Masoud GhadiPasha et al. it was demonstrated that only 25% of obstetricians and midwives have acceptable information about therapeutic abortion laws (7). Furthermore, in another study performed in Kerman, Iran, only 7.6% of midwives have a good knowledge of abortion laws (8), which is indicative of healthcare staff's insufficient information. On the other hand, in addition to the level of knowledge, it seems that healthcare staff's attitude towards therapeutic abortion laws is effective in providing therapeutic abortion services (9).

In this regard, the importance of several issues should be considered, including the knowledge and attitude of midwives about legal abortion laws, their performance to prevent illegal abortions, and their right approach to the timely referral of pregnant mothers with difficulty, for receiving legal abortion license and preventing abnormal births. Therefore, informing healthcare staff especially midwives and obstetricians regarding therapeutic abortion laws is one of the Ministry of Health's strategies to reduce illegal abortion.

However, it seems that training courses have not been effective enough in this field and requires more training. The purpose of this study was to assess the relationship between the knowledge and attitude towards legal abortion laws with the performance of midwives in Qazvin, Iran, in order to sensitize the authorities to plan for further training and improve the quality of healthcare services at both prevention and treatment levels that lead to the promotion of maternal health's level in the community.

Methods

In this descriptive-analytic study, the researcher referred to the Deputy of Treatment and provided a list of the midwives with private offices in Qazvin (Qazvin, Mohammadi-Alvand, Boyin Zahra, and Takestan), Iran. The number of active offices at the time of study was reported around 160 in the entire province.

Then, the subjects were selected according to entry criteria, including the midwives with at least a midwifery bachelor's degree, a medical system number, midwifery license in Qazvin, and employed at the office. Moreover, the convenient sampling was performed by referring to the chosen midwives' offices from May to September 2012.

The exclusion criteria were the midwives unwilling for the cooperation and those prohibited due to violation by the country's law enforcement authorities or country's medical system organization (whether temporarily or permanently). The studied variables included knowledge, performance, attitude, age, education, work experience, as well as

participation in retraining courses and congresses.

The data collection tools were four questionnaires, including demographic characteristics, knowledge, attitude, and performance questionnaires. The three questionnaires related to the evaluation of the knowledge, attitude, and performance were developed according to a questionnaire applied by Ahmadi (2012). The reliability of the aforementioned questionnaires was confirmed rendering Cronbach's alpha coefficients of 0.86, 0.79, and 0.79, respectively (10).

The knowledge questionnaire consisted of 30 questions in which the studied subjects expressed their opinion using the 3-point Likert scale of "Yes/No/I Do not Know". The questions 1-10, 11-25, and 26-30 were related to legal abortion (therapeutic) laws in the country, conditions of issuing legal abortion (therapeutic) license in the country, and procedures of issuing legal abortion (therapeutic) license in the country, respectively. Knowledge scoring was based on good (21-30), average (11-20), and poor (0-10) levels.

The attitude questionnaire comprised the questions with answers based on the 5-point Likert scale (Strongly agree: 4, Agree: 3, Neutral: 2, Disagree: 1, and Strongly disagree: 0). This questionnaire assessed the attitude of the studies cases towards legal abortion (therapeutic) laws in the country, as well as the conditions and procedures of issuing legal abortion license, by questions 1-15 and 15-30, respectively. Attitude scoring was based on positive (81-120) and negative (41-48) answers.

In performance questionnaire, the samples were assessed using the 3-point Likert scale of "A, B, C", in case of encountering pregnant mothers who had the conditions of legal abortion in accordance with the country approved law. Option A is considered for the appropriate performance that is based on the instructions of the National Forensic Medicine Center. Option B is the ambiguous performance that results in the loss of time due to the time limit for legal abortion or additional task for the patient. Option C is the

inappropriate performance that causes irreparable complications for the patient. Performance scoring was based good (21-30), average (20-3), and poor (2-0) levels.

The researcher after introducing herself/himself, explaining the importance of the study, and obtaining informed consent, provided the midwives with four questionnaires (demographic characteristics, knowledge, attitude, and performance questionnaires) via sending e-mail and referring to the office.

After collecting the questionnaires, data analysis was performed by SPSS software (version 24). Data analysis was conducted using descriptive statistics, such as percentages, frequencies, and mean scores, as well as inferential statistics, including independent t-test to compare quantitative data in the two groups, Chi-square test to assess the relationship between qualitative data, and Pearson correlation coefficient.

The ethical considerations of the present study included obtaining a license from the Faculty of Nursing and Midwifery in Qazvin University, with the ethics code of IR.QUMS.REC.1395.218, informing the subjects about the study goals, obtaining satisfaction for the participation in the research environment, and observing the principle of confidentiality.

Result

Out of 160 active offices in the entire province at the time of sampling, 122 midwives with private offices were involved in the present project that most of them were from Qazvin, Takestan, Eqbaliyeh, and Abyk. The mean age of the studied samples was 34.54±3.9 years. Moreover, 86.9% and 13.1% of the midwives had a bachelor's degree and master's degree, respectively. Overall, 73.1% of the subjects were reported with a work experience of 7-15 years. The majority (87.7%) of the participants joined recurrent retraining courses; however, only 4.1% of them attended the annual congresses (Table 1).

The obtained results indicated that 55.7% of the midwives had a good level of knowledge in this regard. Moreover, the investigation of

Table1. Evaluation of variables distribution and their relationship with knowledge, attitude, and performance of studied midwives

Variable		Frequency n (%)	Knowledge	Attitude	Performance
Education	Bachelor's degree	106 (86.9)	r=0.05 P=0.5	r=-0.7 P=0.3	r=0.06 P=0.05
	Master's degree	16 (13.1)			
Work experience	1-3	10 (8.2)	r=0.11 P=0.3	r=0.005 P=0.4	r=-0.16 P=0.01
	6-4	14 (11.5)			
	10-7	43 (35.5)			
	15-11	47 (38.5)			
	15>	8 (6.6)			
Participation in retraining course	Yes	107 (87.7)	r=-0.01 P=0.8	r=-0.07 P=0.4	r=-0.01 P=0.8
	No	15 (12.3)			
Participation in congress	Yes	5 (4.1)	r=-0.13 P=0.05	r=0.058 P=0.6	r=0.02 P=0.3
	No	116 (95.1)			
Age	Mean±standard deviation	3.9±34.5	r=0.14 P=0.1	r=0.09 P=0.05	r=-0.09 P=0.3

attitude and performance demonstrated that 13.1% and 86.9% of the subjects had positive and negative attitudes towards abortion laws, respectively. Midwives' performance regarding the correct identification and timely referral of legal abortion cases was reported to be an average level (60.7%; Table 2).

Table 2. Frequency distribution of knowledge, attitude, and performance of midwives towards legal abortion

Vaeiable		Frequency	Percent (%)
Level of knowledge	Good (21-30)	68	55.7
	Average (11-20)	54	44.3
	Poor (0-10)	0	0
Level of attitude	Positive (81-120)	16	13.1
	Negative (41-80)	106	86.9
Level of performance	Good (21-30)	29	23.8
	Average (11-21)	74	60.7
	Poor (0-10)	19	15.6

The results of Pearson correlation coefficient showed that there was an indirect and poor relationship between the midwives' attitude and performance scores (r=-0.09, P<0.05). However, no significant relationship was observed between the midwives' knowledge and performance scores (r=0.4, P=-0.07).

Table 3 tabulates the mean scores of knowledge, attitude, and performance at different levels of the independent variables.

Based on the obtained results of Mann-Whitney U and Kruskal-Wallis tests, the mean score of midwives' performance was significant at different levels of education and work experience (P<0.05). Attitude, knowledge, and performance showed no statistical relationship with the different levels of all the studied variables (P>0.05). Moreover, in the evaluation of Spearman's rank correlation coefficient (Table 1), there were significant relationships between qualitative demographic variables with midwives' knowledge, attitude, and performance scores, as well as between midwives' education and work experience with their performance (P<0.05).

In addition, there was a significant relationship between the midwives' participation in the congress and knowledge (P<0.05). A significant relationship was also observed between attending the congress and knowledge (P<0.05). In addition, in the

Table 3. Comparison of mean scores of knowledge, attitude, and performance in levels of variables

Variable		Knowledge Mean±standard deviation	P-value	Attitude Mean±standard deviation	P-value	Performance Mean±standard deviation	P-value
Education	Bachelor's degree	20.6±3.3	P=0.2	72±13.2	P=0.8	3.5±1.2	P=0.05
	Master's degree	21.8±4.3		70.4±9.7		4.1±0.3	
Work experience	3-1	18.9±2.6	P=0.18	66.6±5.1	P=0.49	4.2±1.3	P=0.009
	6-4	21.4±3.6		72.3±12		0.5±4.1	
	10-7	21.3±3.5		73.7±15.5		3.2±1.2	
	15-11	20.2±3.5		71.4±12.2		3.7±1.1	
	15>	21.7±3.7		69.6±3.8		4±1.2	
Participation in retraining course	Yes	20.8±3.4	P=0.6	71.9±13	P=0.5	3.6±1.1	P=0.8
	No	20.1±3.9		71±9		3.7±1.2	
Participation in congress	Yes	23.6±2.5	P=0.13	68.6±3.4	P=0.9	4±1.1	P=0.6
	No	20.6±3.5		71.9±2.5		3.6±1.17	

assessment of Pearson correlation coefficient, there was a significant relationship between the age and attitude of midwives (P<0.05).

Discussion

The present study evaluated the knowledge, attitude, and performance of 122 midwives with private offices towards legal abortion laws in Qazvin, Iran. In this investigation, it was demonstrated that about half of the midwives with offices in Qazvin had good knowledge of abortion laws (55.7%). In a study conducted by GhadiPasha, the midwives' and obstetricians' knowledge level of abortion laws was good (86.6%) in Kerman, Iran (8). The results of the aforementioned study are relatively similar to the findings of the present study.

However, in a study carried out by Afhami (2016), the majority of midwives had a very poor to average knowledge level towards the legal and religious laws of abortion (11). Moreover, in another study conducted by GhadiPasha et al. in Yazd, only 25.5% of midwives and obstetricians had knowledge about abortion laws (7). In a study performed in Ghana, it was demonstrated that midwives' knowledge of therapeutic abortion laws is negligible leading to the deprivation of most community women to receive healthcare services (12).

The difference in the results of cities and countries may be due to the lack of uniformity of circumstances and use of a common questionnaire. In the studies, there was a significant relationship between knowledge, level of education, study of the regulations, and participation in retraining courses (7, 8, 13). In the present study, more educated midwives (with a master's degree) who attended the congresses and retraining courses had a higher knowledge score, compared to other subjects.

As the definitions and laws of abortion in various Islamic and non-Islamic countries are different due to cultural, religious, and other reasons, naturally the attitude and knowledge of individuals also vary from country to country, which can affect people's intentions and tendencies to perform an action. In the

present study, it was determined that most midwives had a negative attitude towards therapeutic abortion laws, and only 13.1% had a positive attitude in this regard.

In a study conducted by Afhami, most midwives had a conservative attitude towards abortion laws and decrees (11). The results of a systematic study carried out in South and East Asia showed that most healthcare providers have a conservative attitude towards therapeutic abortion. In the aforementioned study, it was also indicated that there are nine key factors that can affect the attitudes of healthcare providers, including human rights, gender, religion, availability, knowledge, quality of life, duality, quality of care, and stigma (14).

In a study conducted in Argentina, more than half of medical students had a positive attitude towards abortion, and their attitude grew more positive by increasing the number of academic years (15). Apparently, their attitude has been changed due to the increased level of knowledge about therapeutic abortion.

Moreover, in Ethiopia, despite the fact that abortion has been freely performed since 2005, it was reported that most midwives have less tendency towards abortion due to their religious beliefs; however, due to work experience, the midwives agree to carry out abortion (16). This finding is in line with the results of the present study confirming the effectiveness of creeds and beliefs in people's attitudes.

In two studies carried out in Argentina during 1998 and 2010 regarding the attitudes of physicians and midwives towards abortion in high-risk cases, the results indicated that with the passage of time, the attitudes of physicians towards legal abortion cases have been positive (15). It seems that the passage of time has increased the knowledge or quality of life and quality of care that has changed the attitude of healthcare providers to more positive towards therapeutic abortion.

According to the evidence, it was shown that approximately 60% of the world's women population lives where abortion is officially legal; however, there are barriers to perform it. Furthermore, many women do not enjoy their

true rights in this regard, which can be attributed to the attitude of healthcare providers (14).

In a study performed by Rahimi regarding the attitude of students and healthcare personnel towards abortion, no relationship was observed between the attitude with education, marital status, occupational status, and gender. There was only a direct relationship between religious beliefs and attitudes towards abortion (9).

In the present study, no relationship was observed between the attitudes of midwives with education and work experience; however, there was a statistically significant relationship between the midwives' age and attitude score (P<0.05). It can be explained that the people's perception of the importance of the laws has been enhanced through increasing the age and decreasing the emotional excitements that in turn improves their attitudes.

Another finding indicated an indirect and very poor relationship between midwives' attitude and performance (r=-0.09, P>0.05). This results indicated that the midwives with more negative attitudes towards abortion laws showed better performance towards abortion laws (Approximately, 23.9% and 60.7% of the midwives were reported with good and average performance, respectively.).

The above-mentioned contradiction can be justified by the fact that as the mean scores are dealt with in assessing the correlation coefficient, most midwives who obtained the average level of performance seemed to have a low score of this level and are close to the poor level of performance that has affected the correlation coefficient.

On the other hand, midwives with higher educational level and work experience had better performance regarding therapeutic abortion laws. The results of the present study are consistent with the findings of a study conducted by Stephanie indicating that students with positive attitudes towards legal abortion had a greater tendency and intention to perform abortion (9). It can be concluded that it is required to change the attitudes of healthcare personnel in the countries with poor performance and barriers to carry out abortion despite the ratification of abortion laws.

It should be noted that the limitations of this project included the closure of some of the offices in the researcher's referral in several days and lack of access to the offices by telephone and e-mail. In addition, some of the participants did not cooperate in completing the questionnaire.

Conclusion

In general, it seems that midwife's knowledge of therapeutic abortion laws is poor in some cities, which may affect their performance in this regard; however, further investigation is needed for better judgment. Moreover, in order to improve performance, the attitude of midwives should be changed through various ways, such as promoting knowledge and care provision. Furthermore, healthcare personnel should be justified even if they have negative attitudes towards this issue or do not have sufficient ability and knowledge in this regard they have to refer the patients to a competent person.

In this regard, efforts are required to enhance the knowledge level of midwives by holding more training workshops and emphasizing the professors for the best and most complete presentation of legal abortion issues. Moreover, clarifying the importance of this issue for university students is one of the effective ways to improve the implementation of therapeutic abortion laws.

Conflict of interest

The author declares no conflict of interest.

Acknowledgements

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