

ORIGINAL RESEARCH

Investigating Awareness Level and Attitudes Toward Induced Abortion in Patients Admitted to Medical Centers in Tehran, Iran

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Abstract: **Background:** Abortion is recognized as a social and cultural problem across societies, posing risks to people's health. This study aims to explore various facets of induced abortion in patients admitted to medical centers in Tehran.

Methods: This descriptive-cross-sectional study surveyed referred patients at Mahdiah, Taleghani, and Shohada-e-Tajrish Hospitals in Tehran, Iran. Information was collected using a researcher-made questionnaire. Data were analyzed employing the chi-square test, t-test, and Pearson's correlation coefficient, considering a P-value <0.05 as significant.

Results: Among the 1,200 examined patients, 75% were in favor of induced abortion but within legal bounds (95%, CI=58-90). Furthermore, 65% of the participants demonstrated adequate knowledge about induced abortion and its associated side effects (95%, CI=55-75), yet they advocated it due to financial and welfare problems. Meanwhile, there was a statistically significant correlation between awareness scores and age, education, and gestational age (P-value<0.04).

Conclusion: The awareness and attitude toward abortion vary among individuals. However, enforcing different severe restrictions and stringent abortion laws may lead to destructive consequences.

Keywords: Induced Abortion; Illegal Abortion; Unwanted Pregnancy; Abortion Law

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1. Introduction

Intentional abortion has witnessed a growing trend in Iran. Despite being illegal, numerous unwanted pregnancies result in unsafe and sometimes perilous abortions. The global prevalence of intentional and unsanitary abortions, especially in developing societies, significantly contributes to maternal mortality. Therefore, addressing this issue stands as a crucial priority in reproductive health research (1, 2). In our nation, induced abortion is only permitted when the pregnancy endangers the mother's life, or when the fetus has evident abnormalities, leading to the mother's mental distress. Consequently, illegal abortions are rampant, exposing women to various risks, including death. Despite the potential implications, few studies have delved into the necessity

and moral considerations of abortion, and a comprehensive analysis of this topic could potentially reshape the perspectives of stakeholders, opinion leaders, and legislators ((3, 4). Repressive laws and policies have failed to prevent induced abortion. Effective educational solutions require engaging society, enhancing patients' awareness, and implementing successful family planning programs and pregnancy prevention methods. Notably, many women seeking abortion and medical personnel have families. (5, 6) Women often seek abortion due to unwanted pregnancies, underscoring the importance of understanding their attitudes and awareness. Establishing a foundation for preventive measures is also essential. (7, 8) This study aims to assess the attitudes and awareness of patients at Shohada-e-Tajrish, Taleghani, and Mahdiah Hospitals regarding induced abortion, with a particular focus on the associated unsafe practices.

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Table 1: Characteristics of participants in assessing their attitudes and knowledge about induced abortion

Condition	Variable	frequency
		Number and Percent
Age	15-25	30% (360)
	26-35	47% (564)
	36-45	23% (276)
education	College Education	46% (552)
	high school	34% (408)
	Less than high school	15% (180)
	Illiterate	5% (60)
Number of deliveries	First delivery	36% (432)
	Second Childbirth	49% (588)
	Third Childbirth	23% (276)
Job	Housewife	61% (732)
	Employed	27% (324)
	University student student	10.5% (126)
Economic level of the family (from the participant's point of view)	High income	1.5% (18)
	Low income	24% (288)
		76% (912)

Table 2: The relationship between participants' knowledge and attitudes about induced abortion with Background variables

Variable name	Variable levels	Number of people surveyed	Inadequate awareness	Agree Attitude
Age	Age less than 25 years	288(30%)	216(87%)	180(45%)
	Age over 25 years	672(70%)	87(13%)	243(75%)
education	Secondary and lower education	660(55%)	495(75%)	165(33%)
	College Education	540(45%)	135(25%)	115(85%)
Job	Housewife	480(40%)	240(50%)	384(80%)
	Employed	360(30%)	72(20%)	252(70%)
	University student	300(25%)	60(20%)	210(70%)
	Student	60(5%)	60(100%)	60(100%)
Number of deliveries	First delivery	360(30%)	270(75%)	252(70%)
	Second Childbirth	324(27%)	81(25%)	292(90%)
	Third Childbirth	516(43%)	258(5%)	516(100%)

Table 3: Frequency of participants who agree with induced abortion based on the cause

Cause	Number	Cause	Number
Fetal malformation	191(18%)	Not wanting more children	583(55%)
Risk of exacerbation of maternal disease	106(10%)	Existence of family problems	159(15%)
Worried about the mother's physical/mental problems	265(25%)	Financial and economic problems	901(90%)
Intention to divorce	89(8%)	Welfare problems	212(20%)
Early pregnancy	212(20%)	Willingness to continue education	318(30%)

Table 4: Frequency of positive responses of participants in attitudes toward induced abortion

Against abortion in unwanted pregnancies	132(11%)	Opposition to home abortion	1200 (100%)
Opposition to illegal abortion	1200(100%)	The importance of fetal age in abortion	1200 (100%)
The need to monitor the law on abortion	1200(100%)	Cancellation because abortion is not legal	360 (30%)
Cancellation due to illegal abortion	204(17%)	Need for legal abortion	1200(100%)

2. Materials & Methods

The current study adopted a descriptive cross-sectional and analytical approach. The sample consisted of individuals admitted to Mahdiah, Taleghani, and Shohada-e-Tajrish Hos-

pitals in Tehran due to complications arising from induced abortions. The census method was employed for participant selection. The inclusion criteria encompassed patients who had undergone illegally induced abortions. To ensure

the questionnaire's quality, data collection utilized the same printed forms as in previous studies. The reliability of the questionnaire's sections was assessed using Cronbach's alpha index, deeming questions with Cronbach's alpha values equal to or exceeding 0.7 were deemed reliable.

The questionnaire comprised 11 questions assessing knowledge and an additional 11 questions exploring attitudes. Responses were categorized into "correct," "incorrect," or "I do not know." For questions where correct answers were unknown (score 2), participants received a score of 2, while incorrect answers (score 1) were assigned zero points. Attitude-related questions were rated using a five-point Likert scale, ranging from "strongly agree" to "strongly disagree."

The level of knowledge and awareness exceeding 50% served as a significant threshold for differentiation between favorable and unfavorable outcomes. A score of 11 or higher indicated an accurate understanding of abortion, while a score of 33 or higher demonstrated a positive attitude toward abortion. Adjustments were made for negative questions, if necessary when calculating scores for each question. The primary aim was to investigate the correlation between individuals' awareness levels and their attitudes. Verbal consent was obtained before participants completed the data collection form, and written consent was acquired for utilizing file information. Participants' ages ranged from 15 to 49 years, aligning with the reproductive age range specified in the health resources of the relevant ministry. The study included sober patients with varicose veins, as well as those who had experienced spontaneous and legally permissible abortions.

Data underwent analysis using t-tests, chi-squared tests (χ^2), and Pearson's correlation coefficient. A p-value less than 0.05 was considered indicative of significance. All patient-related information was treated as confidential, following the principles outlined in the Helsinki Declaration. As the study did not involve matters of mutual interest for couples, written consent, and clearance from the spouse of the participant were not deemed necessary, in accordance with the guidelines of the Civil Code.

3. Results

Participants' statements were analyzed and classified based on Straus and Glaser's grounded theory, through open coding and axial coding. The findings were obtained in two parts: A) Identification Process, and B) Challenges and Risks.

3.1. Identification Process

This study encompassed a total of 1200 individuals aged between 15 and 40 years, all adhering to the Muslim faith, with 15% having prior marriage experience. The characteristic variables of the participants are outlined in Table 1. Among

the participants, 55% indicated a requirement for a safe contraception method. The findings revealed that 303 individuals (representing 75%, 95% CI=72.5-80.5) exhibited a satisfactory level of awareness, while approximately 30% (326 participants, 95% CI=21.8-38.2) held contrary attitudes towards induced abortion. The average knowledge score was 7.4 among those in favor of induced abortion, contrasting with 3.6 in the group with opposing viewpoints.

An inverse correlation was found between awareness and attitude ($r=0.43$, $p<0.001$). Significant correlations were also observed between awareness and attitude with age, education, occupation, and employment ($p<0.004$) (Table 2). Giving importance to the choice of contraception method was associated with awareness ($p=0.01$), while communication was linked to attitude ($p<0.04$).

Comparing the means revealed a significant age difference between the two groups who wrote pros and cons of induced abortion. The average age in the group opposed to induced abortion was 20.9 years, while in the group agreeing, it was 32.5 years ($p<0.01$).

Participants with adequate knowledge of the subject had an average age that was 3.9 years higher compared to those without adequate knowledge (95% CI=2.4-5.4, $p<0.001$). Additionally, a statistically significant relationship was found between awareness and attitude towards induced abortion among participants based on family income level. These findings have been consistent over the years and provide valuable insights into the relationship between awareness, attitude, and various demographic factors regarding induced abortion.

Participants with high-income levels showed a 35% favorability towards induced abortion, while 30% lacked proper knowledge about it. In contrast, in the low-income group, these figures were 74% and 90%, respectively.

In Table 3, the distribution of respondents who agree with the option of induced abortion in various scenarios is presented. Based on the table, financial and economic problems (90%), not desiring more children (55%), and a willingness to pursue education (30%) were the main reasons mentioned for considering induced abortion. Among these cases, a significant difference in the inclination towards induced abortion was observed concerning lower family income levels and lack of awareness ($P\text{-value}<0.001$). Table 4 illustrates the distribution of participants' attitudes toward induced abortion. It reveals that most instances involving opposition to induced abortion are related to women's perspectives.

In the case study, illegal abortion was reported by 100% of respondents, while induced abortion due to unwanted pregnancy was mentioned by 11%. The gestational age of the fetus emerged as a critical factor influencing decisions, with abortion being indicated in 100% of women's responses. The mean knowledge score between the groups supporting and



opposing abortion exhibited a significant difference at a statistical level of $p < 0.003$. Among those in favor of induced abortion, 28% had limited knowledge about the issue, compared to 32.8% among those opposing it. However, no significant distinction between these two groups was found (p -value > 0.1). The assessment of participants' responses regarding awareness of legal aspects and permissions for induced abortion, the legal conditions surrounding abortion induction in Iran, and potential health risks, including mortality, illnesses, physical disabilities, and mental health problems associated with illegal and clandestine abortions, revealed that 40.5% of participants possessed limited knowledge about induced abortion and its associated complications. Approximately 83% of participants were familiar with the regulations and penalties concerning induced abortion, and 100% were aware of the legality of induced abortion. Conversely, there was no knowledge about this subject in Iran. Furthermore, 100% of participants were well-informed about the substantial risks of death, physical impairment, and mental health issues associated with unsafe abortions.

4. Discussion

The study findings underscore that the most influential factors contributing to participants' support for induced abortion are unfavorable economic circumstances within the family and a lack of mental and emotional tranquility in the household. Despite being well-informed about the potential complications of abortion, participants exhibited opposition to illegal abortion practices. It is believed that the government and parliament will enact legislation permitting legal abortion in cases of intricate and distressing pregnancies up to a specific gestational age. According to Sharia law pertaining to abortion, mothers can undertake abortion procedures easily and without encountering bureaucratic hurdles. Numerous research studies have highlighted various motivations for intentional abortions, including concerns about having an adequate number of children, financial constraints, unpreparedness to care for a child, apprehensions about maternal or fetal health, and the challenge of balancing parenthood with ongoing education or employment (9-11) Additionally, factors like the desire for a smaller family, the young age of a previous child, contraceptive method failures, strained marital relationships, or the contemplation of divorce have been cited as contributing reasons (12-14). The outcomes of this study closely parallel those of prior investigations; however, there is a significant distinction in terms of the participants' heightened awareness levels and their attitudinal alignment toward supporting induced abortion under specific conditions. In the current study, a unanimous consensus against illegal and home abortions was observed, underscoring the de-

mand for legalized abortion. Notably, the gestational age of the fetus during abortion emerged as a crucial variable among all participants. In contrast, these variables accounted for 49%, 79%, 64%, and 47% in the study conducted by H Gebreselassie. et al. ((15-18) Additionally, within this study, younger students and individuals with higher education demonstrated a greater propensity towards favoring abortion in comparison to another study conducted in Iran. In contrast, most other variables yielded nearly identical results. Diverging from a study conducted in Sri Lanka, a majority of participants in this research possessed adequate knowledge and endorsed induced abortion. In contrast, the Sri Lankan study reported 96% lacking knowledge and 94% being unaware of the illegality of their actions ((19, 20).

When contrasting the findings of this study with research carried out in Beijing, China, noteworthy similarities between the outcomes were evident. This similarity might reflect comparable economic and welfare statuses among participants in the respective capital cities of both countries. Most respondents (78.8%) were aware of the processes and potential consequences of becoming pregnant at a young age. One-third of respondents (31.5%), were aware of induced abortion. Of those, only 12.1% held positive attitudes towards induced abortion. Factors associated with positive attitudes towards abortion were ethnicity, the mother's education and ever having had sex, This study suggests a need to increase sexual and reproductive health literacy. Adolescents must have adequate knowledge about, and access to, modern contraceptives, feel empowered to choose contraceptive methods suitable for them, and be able to negotiate safe sex with their partners, Additionally, adolescents need access to accurate and developmentally appropriate information related to safe abortion (21-23)

5. Conclusion

The study's findings underscore the importance of couples' education and awareness in reducing abortion rates. However, the government's endeavors to enhance the well-being of reproductive couples by fostering mental and psychological harmony within families, alongside improving their financial circumstances to facilitate childbearing, now assume a central role.

6. Appendix

6.1. Acknowledgment

The authors express gratitude to the hospital administrators mentioned in the study methodology, as well as the patients who participated in this research. All information sourced from medical records was treated with confidentiality, adhering to the principles of the Decla-

ration of Helsinki.

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6.2. Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

6.3. Funding support

None.

6.4. Author's contributions

All the authors had the same contribution.

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