Review Paper

Factors Affecting Inducted Abortion: A Scoping Review

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ABSTRACT

Background: In Iran, nearly 530,000 intentional abortions take place every year. Intentional or criminal abortions make up nearly a third of all abortions, which is a significant number. In order to improve the mortality rate of pregnant mothers and reduce unsafe abortions, it is necessary to identify key causes of abortion. This study was conducted to investigate the factors affecting induced abortions, allowing for the development of effective solutions for policy-making based on the results.

Methods: The present study was carried out using the scoping review method in 2023. This scoping review assessed articles related to the causes of induced abortion from 2003 to 2023 searched in English language databases, including Springer, PubMed, Web of Science, Emerald, ScienceDirect, and Scopus, as well as Persian electronic databases, including Magiran and SID, and the Google Scholar search engine. The data were analyzed qualitatively through content analysis and coded using MAXQDA software, version 20.

Results: In this study, factors affecting induced abortion were categorized as predisposing factors, enabling factors, and need factors associated with the use or non-use of health services.

Conclusion: The effective factors in fertility are the society's culture, as well as environmental, social, economic, political, and religious factors that determine fertility and abortion within the society. At the micro level, personal motives, people's attitudes, and their perceptions can affect people's behavior.

Keywords: Induced abortion, Factors induced abortion

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Introduction

The loss and termination of pregnancy for any reason before the 22nd week of pregnancy is referred to as abortion [1]. As one of the safest gynecological surgical procedures, legal abortion is less dangerous than natural childbirth. However, unsafe abortion is one of the biggest neglected health problems in developing countries, being a major problem in women's lives during their reproductive years. This type of abortion occurs outside legal systems and in environments with minimal medical standards, often performed by individuals who lack the necessary skills [2]. Accurate information regarding the number and physical, mental, psychological, social, and economic consequences of illegal abortion cannot be obtained in countries where abortion is not legal. Hospitals are not visited for secret complete abortions. Therefore, hospital data does not only represent the tip of the iceberg. Since abortion is seen as a reprehensible act, its guardian is always absent from healthcare programs. However, its complications are undeniable [3]. Some cases of hospitalization among young women in developing countries are rooted in the consequences of unsafe abortions. An estimated 22 million unsafe abortions are reported to occur annually worldwide, of which 98% take place in developing countries. Moreover, 5 million women suffer from the complications of unsafe abortion, including bleeding, infection, and damage to the reproductive system and abdominal organs [4].

Every year, approximately 25 million unsafe abortions occur worldwide, of which, 97% are reported in developing countries, with half of them occurring in Asia. Unsafe abortion plays an important role in maternal morbidity, disability, and mortality, largely due to post-abortion sepsis, hemorrhage, genital trauma, infection, and infertility. Recent estimates suggest that about 13% of global maternal deaths are attributed to unsafe abortion. Also, approximately seven million women undergo treatment due to complications resulting from unsafe abortion, and about five million women suffer disability as a result of such complications [5].

In Iran, abortion is allowed only if the mother's life is in danger or the fetus is suffering from certain diseases; thus, induction abortion is performed. Apart from these circumstances, all other induced abortions are considered intentional abortions.

In recent years, various studies have been conducted in different countries about intentional abortion. In Jamaica, although abortion is unforgivable, there are certain customs for its acceptance in society. In southern Cameroon, while abortion is stigmatized, its social and moral consequences are considered less severe than those of an unplanned pregnancy, and despite this stigma, abortions are still performed in southern Cameroon [6]. In Thailand, abortion is illegal, except in cases where it is necessary for the mother's health or if sexual assault is the cause of pregnancy; several methods are used for abortion in these cases. In Kenya, induced abortion is relatively common, especially among women, and young single urban women, who have limited access to pregnancy control facilities. In South Asia, Nepal has become a pioneer in the legalization, implementation, and scaling up of safe abortion services [7].

According to the World Health Organisation (WHO) report, most European countries allow legal abortion in all circumstances, except for Ireland and Andorra, which only allow abortion in the cases of saving the life of the mother, and England, which allows abortion only in cases of saving the mother's life, at the mother's request, or in instances of sexual assault. Malta is the only European country that does not allow abortion in any context [8].

Nearly 530,000 intentional abortions take place in Iran every year. Intended or criminal abortions constitute nearly one-third of all abortions, which is a significant proportion. According to official statistics, the abortion rate is about 8% in Ardabil Province. These abortions are identified by the health system, and there are no statistics on criminal abortions. Therefore, a better approach is to take measures that reduce the number of illegal abortions. The first way to do this is to reduce the number of unintended pregnancies. The number of illegal abortions can be significantly reduced if investments are made in this area. Some effective measures are comprehensive sexual health education, which provides accurate medical information about contraception, insurance coverage, access to contraceptives for those in need, and programs that address domestic violence and sexual abuse [9].

The key causes of abortion must be identified to reduce maternal mortality and unsafe abortions. Accordingly, this study was conducted to investigate the factors affecting induced and criminal abortions so that effective solutions can be provided based on the results for policy-making. Among the methods of review studies, the scoping review is an appropriate method to answer the questions "what" and "why" in a specific subject area. The scoping review method can be used when the main subject of the study and its documents are broad

Table 1. Search strategy in the medline database from the PubMed portal

Search Strategy
(((“causality”[MeSH Terms] OR “causality”[All Fields] OR “causalities”[All Fields]) OR (“causality”[MeSH Terms] OR “causality”[All Fields] OR (“multifactorial”[All Fields] AND “causality”[All Fields]) OR “multifactorial causality”[All Fields]) OR (“causality”[MeSH Terms] OR “causality”[All Fields] OR (“causalities”[All Fields] AND “multifactorial”[All Fields])) OR (“causality”[MeSH Terms] OR “causality”[All Fields] OR (“causality”[All Fields] AND “multifactorial”[All Fields])) OR (“causality”[MeSH Terms] OR “causality”[All Fields] OR (“reinforcing”[All Fields] AND “factors”[All Fields]) OR “reinforcing factors”[All Fields]) OR (“causality”[MeSH Terms] OR “causality”[All Fields] OR (“factor”[All Fields] AND ((“abortion, criminal”[MeSH Terms] OR (“abortion”[All Fields] AND “criminal”[All Fields]) OR “criminal abortion”[All Fields] OR (“abortions”[All Fields] AND “criminal”[All Fields]) OR “abortions, criminal”[All Fields]) OR (“abortion, criminal”[MeSH Terms] OR (“abortion”[All Fields] AND “abortion”[All Fields])) OR (“abortion, criminal”[MeSH Terms] OR (“abortion”[All Fields] AND “ AND “illegal”[All Fields]) OR “abortion, illegal”[All Fields]) OR (“abortion, criminal”[MeSH Terms] OR (“abortion”[All Fields] AND “criminal”[All Fields]) OR “criminal abortion”[All Fields] OR (“illegal”[All Fields] AND “abortion”[All Fields]) OR “illegal abortion”[All Fields]) OR (“abortion, criminal”[MeSH Terms] OR (“abortion”[All Fields] AND “criminal”[All Fields]) OR (“illegal”[All Fields] AND “abortions”[All Fields]) OR “illegal abortions”[All Fields])) AND (“2003/01/01”[PubDate]: “2023/03/20”[PubDate])

JRH

and complex or have not been extensively and comprehensively examined [10].

A scoping review is used for reasons, such as identifying the types of evidence of the subject under investigation, expressing the generality of the subject, identifying its key concepts, such as definitions and conceptual models, drawing a map of the relevant literature, identifying the research methods used in the field under investigation, examining the nature and scope of studies and research evidence produced, summarizing and publishing research findings, identifying and analyzing research gaps in the relevant literature, and determining the necessity of conducting a systematic review [10, 11]. Arksey and O’Malley’s six-stage methodological framework was used in this scoping review. These stages are:

1. Identifying the research questions

2. Identifying relevant studies using reliable databases and reviewing gray texts, theses, review articles, and references of studies in the research area

3. Selecting related studies from primary studies

4. Mapping out the data as charts and tables

5. Collating, summarizing, and reporting the results

6. Including expert consultation

Unlike a systematic review that seeks to answer a specific question [12, 13], a scoping review seeks to answer several questions [10]. The questions of this study were as follows:

1. What factors cause women to have an abortion?

2. What are the most common factors?

Methods

This scoping review was conducted at Ardabil University of Medical Sciences in 2023. International databases, such as Springer, PubMed, Web of Science, Emerald, ScienceDirect, and Scopus, as well as national databases, such as Magiran and SID, and search engines, such as Google Scholar, were searched to find relevant studies. The keywords used for the search included MeSH terms, and the common keywords concerning the studied topic included as follows:

Causalities, multifactorial causality, multifactorial, reinforcing, causality, reinforcing factors, factor, causation, causations, enabling factors, enabling factor, factor, enabling factor, abortions, criminal, criminal abortion, abortion, illegal, illegal abortion, abortions (Table 1).

The inclusion criteria were all studies on factors affecting induced abortion from January 1, 2003, to March 20, 2023. The exclusion criteria were studies published in languages other than Persian and English, studies published after the end of March 20, 2023, and scientific references without full text. A total of 1275 studies were found in the initial search. After excluding duplicate studies and studies without full text, 653 studies were obtained for the review of titles and abstracts, of which 522 were excluded due to being unrelated. At this stage, 131 studies on factors affecting induced abortion were retained. After a thorough review of the studies, 93 were excluded due to irrelevance and low quality. After reviewing the references, five studies were added to the final review process. Finally, 33 review studies on factors affecting induced abortion were assessed (Figure 1).

The data extraction form included the authors’ profiles, journal name, year of publication, purpose of the study, year of the study, type of study, data collection method, and factors affecting induced abortion. The data were

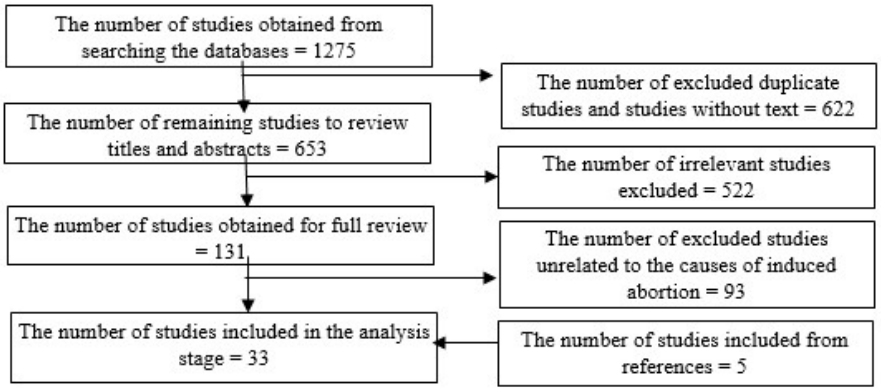

Figure 1. The process of searching databases and finding studies

JRH

analyzed using a qualitative approach and content analysis and were coded using MAXQDA software, version 20. The themes and sub-themes of each study were then extracted to define the relationship between the themes and identify the main concepts and models. The studies were evaluated using a valid checklist for the evaluation of review and research studies. The minimum and maximum scores that could be obtained were 1 and 15, respectively, and the minimum acceptable score was 10 [14]. A Kappa coefficient of 78% was obtained (P=0.00).

Results

A total of 33 studies on factors affecting abortion were published from January 1, 2003, to March 20, 2023 (Table 2). Three studies were in Persian (9%) and 30 were in English (91%). Two studies were published in the health policy and planning journal, three in the reproductive health journal, and three in the BMC pregnancy and childbirth journal and BMC women's health journal. The maximum number of published studies was five in 2013, followed by four in 2018. Two studies were published annually in 2009, 2010, 2014, and 2015. Six studies (18.2%) used a review method, four (12.2%) used a qualitative method, 22(66.6%) used a quantitative method, and one (3%) used a letter to the editor-in-chief to collect data. The number of studies increased significantly in 2013 and 2018 but decreased in 2021 and 2022.

In general, the studies mentioned 33 factors affecting induced abortion, including the young age of women, celibacy, low socio-economic status, urbanization, low education level, low education level of husbands, no use of contraceptives, lack of access to contraceptives and reproductive health, incorrect use of contraceptives, long-term contraception, unemployment, having a low-level job, ignorance of abortion laws, lack of women's participation in decision-making, unfavorable attitude of women's health professionals to abortion, untrained health professionals, and illegitimate pregnancies, having multiple sexual partners, ban on abortion, socio-economic factors, cultural consequences, pregnancy before formal marriage, unwillingness of policymakers to implement abortion laws, primiparous women, the desire to continue education, religion, mental and cultural status of mothers, lack of access to safe abortion, family discord, encouragement from husbands, failure to make informed decisions about desired family size, long intervals between children, unintended pregnancy, geographic inequalities, having more than two children, not being pregnant with a male child, domestic violence, addiction, lack of financial means, the availability of abortion facilities, history of abortion, the feeling of failure, history of having an abnormal child, welfare seeking, perception of ease of abortion, ignorance of mental consequences of abortion, and ignorance of physical consequences of abortion.

The most frequent words in the search for factors affecting induced abortion were women's education level (9 times), young age (9 times), unintended pregnancy (7 times), not using contraceptives (6 times), incorrect use of contraceptives (5 times), social, economic, and cultural factors (12 times), religion (4 times), husbands' education level (4 times), women's employment (3 times), and the number of children (4 times).

In this study, factors affecting induced abortion were categorized as predisposing factors, enabling factors, and need factors associated with the use or non-use of health services [15, 43].

Table 2. Characteristics of the reviewed studies

Author(s), Year of Publication	Type of Study	Journal Name	Factors Affecting Inducted Abortion
Sedgh et al. 2011 [15]	Quantitative	Planning	Abortion rates were highest among women aged 15 to 24. Abortion rates among women in urban areas were twice as high as in rural areas. The probability of abortion was higher among educated women and those who have not yet had children. Not using contraception at the time of conception doubles the risk of unsafe abortion, while ineffective use increases vulnerability. Starting or continuing long-term contraception, due to poor quality or incorrect use of contraceptive methods, also heightens vulnerability. Most of the abortions were due to an accompanying health problem, and half of them require treatment. In total, 24% of all abortions required post-abortion care at a health facility.
Arambepola et al. 2017 [16]	Quantitative	BMC pregnancy and childbirth	Not using contraception at the time of conception doubles the risk of unsafe abortion. Ineffective use increases vulnerability. Starting or continuing long-term contraception, due to poor quality or incorrect use of contraceptive methods increases vulnerability.
Arambepola et al. 2016 [17]	Quantitative	Reproductive health	Low socioeconomic status, characterized by low education and less skilled jobs, was a significant risk factor for unsafe abortion. Independently of this risk, being single, failing to make informed decisions about desired family size, not having a female child, and longer average birth intervals indicate women's vulnerability. Contraceptive use, age at reproductive events, and spousal characteristics do not confer any risk for miscarriage.
Sousa et al. [18]	Quantitative	Health policy and planning	Possibility of induced abortion: Induced abortion is more likely in women who did not become pregnant on time, those who experienced unwanted pregnancies, and women who have three or more children at that time. Abortion exhibits a socioeconomic gradient, with the probability of unsafe abortion increasing among poorer women. Wealthier women are also more likely to undergo unsafe abortions. Additionally, women with less education and those of Indigenous origin are more likely to have unsafe abortions
Dasgupta et al. 2019 [19]	Quantitative	Indian journal of public health	Approximately 59.3% of induced abortions were illegal, with unwanted pregnancy being the main reason (62.4%). Private facilities and non-prescription drugs were preferred for induced abortions. Low education, living in a nuclear family, having fewer than two children, not having a male child, and experiencing domestic violence during pregnancy were significant predictors of abortion.
Corrêa & Mastrellae 2012 [20]	Systematic review	Health practices and scientific controversy	The legal prohibition of abortion prevents the proper prescription and use of drugs such as misoprostol, which is both safe and effective. Therefore, the danger to women's health is linked not to the intrinsic characteristics of the drug but to the moral arguments that reflect negligence and disregard for the fundamental rights of women.
Prada et al. 2015 [21]	Quantitative	African journal of reproductive health	Women with abortion-related maternal near misses (MNM) differed from women with MNM due to other causes. Not surprisingly, the life-threatening episodes resulting from induced abortion primarily occurred among women who were in the first trimester of gestation, whereas severe complications for the other women mainly occurred in their third trimester of gestation. Furthermore, women with MNM due to unsafe abortion had fewer pregnancies and births and were more likely to have had repeat abortions (39% vs 7%) compared to women with MNM due to other causes. Women with MNM from causes other than unsafe abortion were older, with a median age of 30 years, compared to women with abortion-related MNM, who had a median age of 20 years Among women with abortion-related near-miss conditions, most were in school, the majority were of low socio-economic status, and almost all were not in a union (ten out of twelve). In nine cases, induced abortion was performed in locations other than a health facility, and in all cases, the life-threatening complications occurred before the women were admitted to a health facility
Khowaja et al. 2013 [22]	Review	Journal of the Pakistan Medical Association	The factors often contributing to unsafe conditions include poverty, unintended pregnancies, ineffective use of contraceptive methods, and unawareness of the law.
Grimes et al. 2006 [23]	Series	Sexual and reproductive health	Access to modern contraception can reduce, but never eliminate, the need for abortion. Legalization of abortion is a necessary but insufficient step toward eliminating unsafe abortions. When abortion is made legal, safe, and easily accessible, women's health rapidly improves. In contrast, women's health deteriorates when access to safe abortion becomes more difficult or illegal. Legal abortion in developed countries is one of the safest procedures in contemporary practice, with case fatality rates of less than one death per 100,000 procedures

Author(s), Year of Publication	Type of Study	Journal Name	Factors Affecting Inducted Abortion
Rasch, 2010 [24]	Systematic review	ACTA obstetricia et gynecologica	In countries where abortion is prohibited, women often resort to clandestine interventions to terminate unwanted pregnancies.
Atuhaire, 2019 [25]	Systematic review	Health planning and management	Adolescents with unwanted pregnancies may resort to unsafe abortion practices due to socioeconomic factors, cultural implications of premarital pregnancy, and the legal status of abortion. Adolescents often secretly use drugs or self-prescribed beverages, insert sharp instruments into their genitals, and frequently consult traditional service providers. These issues can be addressed by increasing the availability and accessibility of contraceptives among adolescents, as well as providing support, training, and comprehensive counseling on sexual health issues.
Shrivastava et al. 2014 [26]	Letter to editor	African health sciences	Despite global efforts to achieve millennium development goal 5A, the share of unsafe abortion in maternal mortality remains constant at 13%. Multiple socio-demographic factors and barriers contribute to this issue, including young age, illiteracy among women, socio-cultural and religious beliefs, poor socio-economic status, and inadequate awareness about abortion services. Health center-related factors such as geographical disparities, insufficient numbers of facilities, and poor quality of care, along with associated stigma, legal restrictions, and the unwillingness of policymakers to implement abortion laws, further exacerbate the situation. Additionally, untrained health professionals, financial constraints on safe abortions, and negative attitudes of health workers toward abortion clients have been identified as significant restrictions on women's access to abortion services.
Fusco et al. 2012 [27]	Qualitative	Reprodução & Climatério	The following factors were associated with increased risk: single marital status, Black ethnicity/color, low education, monthly per capita income of less than US$200.00, age at first sexual intercourse under 16 years, having two or more sexual partners in the previous year, and acceptance of abortion due to inadequate economic conditions, as well as family dynamics such as being single, having a lonely mother, and not wanting more children.
Vallely et al. 2013 [28]	Qualitative	Reproductive health	Causes of abortion include the desire to continue education, relationship problems, and socio-cultural factors.
Khatri et al. 2019 [7]	Quantitative	PLoS ONE	Women living in villages, from poor households, without an educational background, and those with agricultural jobs had significantly higher abortion rates.
Tesfaye et al. 2014 [29]	Quantitative	Journal of pregnancy	Unwanted pregnancy Having more than four pregnancies The age of 30-34 years
Adhikari et al. 2016 [30]	Quantitative	Reproductive health	Awareness of abortion laws and the conditions surrounding them is low among young women. Awareness programs should target these youth, as they are more likely to be sexually active. There is a need for comprehensive abortion education for these young people, which can ultimately help reduce unsafe abortions.
Shahbazi, et al. 2009 [2]	Qualitative	Journal of advanced nursing	In Iran, as in some other developing countries, intentional abortion is illegal, except in special cases, due to social and religious beliefs. In these countries, providing services and support to women with unwanted pregnancies appears to be the best solution for reducing or preventing illegal abortions.
Juarez & Singh 2015 [31]	Quantitative	ARTICLES	Improving and strengthening family planning services through strategies such as providing comprehensive counseling to couples, access to contraceptives, and information about contraceptive services for this group can enhance their ability to prevent unwanted pregnancies. Additionally, counseling and contraceptive services after abortion, as well as access to safe and legal abortion services, are essential.
Sarayi & Roshanshomal 2012 [32]	Quantitative	Women in development and politics	Increasing age does not affect changes in women's attitudes toward unwanted pregnancy; for many, abortion remains the last resort. Educated women tend to have a higher level of awareness and more positive attitudes. Employment status and attitudes toward abortion do not show a significant relationship, while social class is significant.
Barr-Walker et al. 2019 [33]	Review	PLOS ONE	Distance, cost, and travel time were identified as significant challenges in accessing abortion care.
Bearak et al. 2020 [34]	Qualitative	Lancet global health	People in high-income countries have better access to sexual and reproductive health care compared to those in low-income countries. There is an inverse relationship between unwanted pregnancy and income.

Author(s), Year of Publication	Type of Study	Journal Name	Factors Affecting Inducted Abortion
Mahmoudiani et al. 2018 [35]	Quantitative	Iranian nursing journal	The education of rural women, their spouses, and their religion significantly relates to the likelihood of having an abortion. As the level of women's education increases, the proportion of women who have experienced an abortion decreases. Similarly, as the education level of spouses increases, the proportion of women who have had at least one abortion also decreases. The probability of abortion is higher among women with lower incomes, working women, women with working spouses, women whose spouses have a university education, women who have given birth to more children, and women who marry at an older age.
Farhadia et al. 2013 [36]	Descriptive study	KJMS	Illegal abortions were the most common risk factors among elderly, multiparous, poor, and illiterate women.
Masoumi et al. 2003 [37]	Cross-sectional	Journal of midwifery and reproductive health	The evaluation of the results indicated a strong belief among the majority of participants in the psycho-cultural and socio-economic fields. The most important predictors of induced abortion are changes in social and economic status, which are difficult to alter. In the psycho-cultural spheres, changes in attitudes toward induced abortion are recommended for the majority of people
Cameron et al. 2018 [38]	Review	F1000Research	Limiting a woman's access to abortion does not prevent abortions; it simply makes them more unsafe. There are many barriers to safe abortion, including legal, health, and policy barriers, as well as a lack of trained healthcare workers and stigma.
Frederico et al. 2018 [39]	Qualitative	International journal of environmental research and public health	Distance, cost, and travel time were identified as significant challenges in accessing abortion care
Ratovoson et al. 2020 [40]	Cross-sectional	BMC women's health	The odds of experiencing a miscarriage are higher among women who have ever used contraceptive methods compared to those who have not. However, the proportion of women with a history of abortion was significantly lower in rural areas where contraception was available through health workers. Abortion was significantly more common among young people. Women with a higher level of education and those who engaged in sex in exchange for money or gifts were significantly more likely to have an abortion than non-Christians (including those belonging to Muslim and Sunni religions) compared to Catholics. The incidence of abortion was significantly lower among women who were widowed or divorced The prevalence of abortion in Nepal remains high. Education, religion, age, legal knowledge, and access to safe abortion services were the main determinants associated with abortion. Young, poor, and illiterate women are more likely to have unsafe abortions
Yogi et al. 2018 [41]	study population	BMC pregnancy and childbirth	The odds of experiencing a miscarriage are higher among women who have ever used contraceptive methods compared to those who have not. However, the proportion of women with a history of abortion was significantly lower in rural areas where contraception was available through health workers. Abortion was significantly more common among young people. Women with a higher level of education and those who engaged in sex in exchange for money or gifts were significantly more likely to have an abortion than non-Christians (including those belonging to Muslim and Sunni religions) compared to Catholics. The incidence of abortion was significantly lower among women who were widowed or divorced
Abdul Jabari et al. 2015 [42]	descriptive study	Research in religion and health	The causes of abortion are financial problems, family discord, encouraging spouses, and people's religious attitudes

Table 3 gives predisposing factors, enabling factors, and need factors induced abortion services. Predisposing factors are existing conditions (not directly account for use) that predispose women to use or not use abortion services. Place of residence, women's age, social and economic status, including women's education (wives and their husbands), literacy status, ethnicity, gender (gender of the last child), and the total number of living sons or daughters were considered predisposing factors in this study. Enabling factors are conditions that facilitate or hinder induced abortion. In this study, the use of services, household wealth index, job, knowledge of legal conditions, and the site of legal abortion were the enabling factors.

Need factors are the needs or conditions that force women to use services. In this study, the need factors were unmet needs for family planning, unintended pregnancy, illegitimate pregnancy, incorrect use of contraceptives, women's reasons for abortion, gestational age,

Table 3. Factors affecting induced abortion

Type of Factor	Examples
Predisposing factors	The place of residence, women's age, social and economic status including women's education (wives and their husbands), literacy status, ethnicity, gender (gender of the last child), and the total number of living sons or daughters
Enabling factors	The use of services, household wealth index, employment, ban on abortion, awareness of legal conditions, legal abortion sites, lack of access to contraceptives, lack of access to safe abortion, untrained health professionals, performance of policymakers, encouragement by husbands, and availability of abortion facilities
Need factors	Unmet needs for family planning, unintended pregnancy, illegitimate pregnancy, incorrect use of contraceptives, women's reasons for abortion, gestational age, primiparous women, family discord, domestic violence, failure in decision-making, the mental state of mothers, negative opinions of others, desire to have few children, history of abortion, the feeling of failure, history of having an abnormal child, seeking welfare, perception of ease of abortion, ignorance of the mental consequences of abortion, and ignorance of the physical consequences of abortion.

JRH

primiparous women, family discord, domestic violence, primiparous women, failure in decision-making, and the mental state of mothers.

Discussion

Data analysis suggested that the predisposing factors influencing whether women use or do not use abortion services include the place of residence, women's age, social and economic status, including women's education (wives and their husbands), literacy status, ethnicity, gender (gender of the last child), and the total number of living sons or daughters. These findings were in line with the findings of studies conducted in Brazil [27] and Mexico [18], which indicate that under individual, economic, and social conditions, women face a range of threats that lead to induced abortion, highlighting that abortion does not occur in a social vacuum [44]. Changing couples' attitudes toward married life, achieving higher levels of education, and improving overall well-being are positive developments; however, they are considered vulnerable and require intervention if they become the primary goals of marriage [45]. One of the social factors affecting the choice of abortion is women's education level. According to the results, women with university education are less likely to experience abortion than women with lower education levels. This is in line with the findings of some previous studies [9, 46] but contrasts with the findings of some others [47]. The results of studies conducted in Vietnam [48], Africa [49], and Malawi [50] suggest that the differences in the impact of education level on abortion should be examined within the context of social structures that require intervention and cultural change. No crime can be controlled and explained regardless of its cultural, psychological, social, and economic aspects. The factors affecting abortion are similar to other social phenomena, and the responsible and public institutions must explain its various aspects and correct the behaviors of parents, which are often derived from the social background. This participation requires social health, including social skills and people's ability to understand themselves and their health issues as members of the larger society [51]. The results of the study showed that there is a direct relationship between the number of children and the rate of abortion, specifically, as the number of children increases, the rate of abortion among women also increases. This finding is supported by a study conducted in Mexico [52].

In this study, the enabling factors include the use of services, household wealth index, employment status, knowledge of legal conditions, and the location of legal abortion services. In other words, if the economic and social factors affecting the family improve, other factors may lose their explanatory power. The results of most studies suggest that the experience of abortion is more prevalent among households with lower income levels [53]. Additionally, the results of this study showed that women who did not know where to obtain a safe abortion were more likely to use unsafe abortion facilities, regardless of their knowledge of the legal conditions of abortion. This is confirmed by the results of various studies [7, 54, 55], indicating that awareness of the locations of legal abortion is important for ensuring safe abortion services.

In the need factors section, unintended pregnancy was identified as the most important factor affecting induced abortion. The findings of studies indicate that unintended pregnancy is one of the most important causes of abortion. Low rates of contraception and unmet needs for family planning are important factors contributing to unintended pregnancy and possible causes of unsafe

abortion [51]. Strengthening religious beliefs and fear of abortion complications significantly reduce the possibility of abortion. By promoting a particular lifestyle, religion serves as a defensive shield for individuals against harmful environmental factors. In other words, religious beliefs diminish people's tendency to engage in risky behaviors, enabling them to address problems more effectively [56, 57]. This important issue requires changes in the structure of health services with more attention to religious foundations.

Conclusion

According to the results, the factors affecting fertility and abortion in society include cultural, environmental, social, economic, political, and religious factors. Personal motives, individuals' attitudes, and their perceptions can affect people's behavior at the micro level.

Ethical Considerations

Compliance with ethical guidelines

This research was approved by the Research Ethics Committee of Ardabil University of Medical Sciences, Ardabil, Iran (Code: IR.ARUMS.REC.1402.004).

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Authors' contributions

Project administration: Farahnaz Ezati; Study design: Nazila Nejhaddadgar and Farahnaz Ezati; Writing the original draft: Farahnaz Ezati Data analysis, review, editing, and final approval All authors.

Conflict of interest

The authors declared no conflict of interests.

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