

Assessment of knowledge and attitude of women in Herat, Afghanistan on Abortion: A cross-sectional study

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Abstract

Background: According to the World Health Organization abortion is defined as the termination of pregnancy prior to 20 weeks of gestation or a fetus born weighing less than 500g. The purpose of this study is to assess the knowledge and attitude of women on abortion in Herat city of Afghanistan. This cross-sectional study also serves to fill up the gap of the scarcity of data on abortion in Afghanistan.

Methods: This cross-sectional study was conducted among women aged over 18 years old from over the 15 districts of Herat city of Afghanistan during 25 th March 2021 to 1 st June 2021. A total of 419 women participated in this study.

Results: Total 30.3% of our participants were aged between 18-24 years old and 24.1% of the participants aged between 25-34 years old. Our 78.8% of the participants were married and 35.8% of the participants were Pashtuns by religion. Among 41.5% of them heard about safe abortion methods. Our 56.6% of the participants had a good knowledge score on abortion. Total 57.5% of the participants who aged between 18-24 years old had a good level of knowledge on abortion. Of all the illiterate participants in this study, 46.7% of them had a good level of knowledge on abortion while 76.9% of participants with high school educational level had a good level of knowledge on abortion.

Conclusion: A comprehensive campaign on safe abortion covering all the ethical, religious, constitutional, and scientific domains should be considered by the ministry of Public Health. It is recommended that the ministry of education of Afghanistan consider organizing trainings on safe abortion for high school male and female students.

Background

The World Health Organization (WHO) defines abortion as the termination of pregnancy prior to 20 weeks of gestation or a fetus born weighing less than 500g. However, the definition varies greatly and is affected by state laws [1].

According to WHO, abortion is broadly classified as safe and unsafe, while unsafe abortion being further classified as less safe and least safe [2]. Abortion is safe when it is carried out by skilled personnel and using a method that is recommended by the WHO and is appropriate for the duration of the pregnancy. Unsafe abortion, on the other hand, is carried out by an individual lacking the necessary skills and/or in an environment that does not conform to the minimal medical standards.

Abortion is a widespread global issue that elicits different reactions underpinned by religion, culture, laws of the land, and psychosocial factors. Women's knowledge and attitude on abortion influence their access to reproductive health services. Studies have shown that women's knowledge of abortion is a predictor of whether they may seek to procure a safe abortion [3].

There is a lot of disparity in policies and laws about induced abortion. In developing countries like Afghanistan, Sierra Leone, Lao, Nigeria, and Myanmar, the abortion laws allow the induced abortions only at the time of emergency or life-threatening conditions. This is in contrast to developed countries like the USA, Italy, Canada, etc where a woman can have a legal abortion for a variety of reasons including her medical or mental health, rape, fetal impairments, or financial hardship [4].

A variety of factors influence a woman's decision-making process to perform an abortion. Individual factors include; marital status, being a victim of rape or incest, education level, and financial independence. At an interpersonal level, these factors include support from parents and support from one's partner. Religion, social norms, stigma, and autonomy within the society are the societal determinants of the decision-making process. At the organizational level; abortion laws, the health care system, sexuality education influences the abortion decision-making process [5].

Approximately 73.3 million abortions occurred annually between 2015 and 2019 all over the world and one-third of these cases were carried out in the least safe or dangerous conditions. About 7 million women in developing countries are admitted to hospitals due to unsafe abortion, some of which end in death [6].

Although safe abortion is an essential part of reproductive health care, its access is influenced by women's knowledge on abortion, their awareness of the law, accessibility of safe abortion services, and sociocultural pressures [7].

Abortion stigma is a major drawback for women seeking safe abortion services and the clinicians offering the services. Healthcare professionals offering abortion services are also stigmatized by colleagues and this becomes an obstacle to speaking openly about their work and full participation within their professional circles. Stigma can be classified into three at the individual level: perceived stigma, experienced stigma, and internalized stigma. Perceived stigma refers to ideas that others may have if one's abortion experience is made public. Experienced stigma is the actual acts of discrimination and harassment by others, whereas internalized stigma is the materialization of perceived and experienced stigma in feelings of guilt, shame, anxiety, and other negative feelings [8].

Post-abortion care services have been considered to play an important role in decreasing morbidity and mortality from unsafe abortion as well as implementing contraceptive methods to avoid unwanted pregnancies in the future. Many countries still lack quality post-abortion care services, and this is attributed to the fact that these countries have strict abortion laws, stigma among the women who perform abortions, negative attitude of healthcare providers towards induced abortion, and lack of sufficient health care services [9].

Afghanistan is one of the countries with the highest mortality rates in South Asia. The law of Afghanistan does not allow induced abortion until or unless it is performed to save women's lives. Also, due to social, economic, and geographical conditions, women have lesser access to post-abortion care. In Afghanistan, the Ministry of Public Health (MoPH) has designated MVA (Manual Vacuum Aspiration) treatment for

incomplete abortion as a vital component of basic emergency obstetric and infant care but data about the implementation of post-abortion care is very scarce [10].

The purpose of this study is to assess the knowledge and attitude of women on abortion in Herat city of Afghanistan. This cross-sectional study also serves to fill up the gap of the scarcity of data on abortion in Afghanistan.

Methodology

This cross-sectional study was conducted among women from over the 15 districts of Herat city of Afghanistan from 25th March 2021 to 1st June 2021.

The sample calculation method for the prevalence study was used to calculate the sample size of this study. There was no other related study on this topic, so we considered the knowledge score level as 0.5. d was taken as 0.05, and z was taken as 1.96. The sample size was calculated as 384 but we collected data from 419 participants to cover the error percentage.

Participants of this study consisted of young girls and women over 18 years old from Herat province of Afghanistan. Only participants who were willing to continue to answer all the questions were included in the study result. Non-volunteers and healthcare workers were excluded from this study.

To assess girls' and women's knowledge and attitude on abortion among the general population of Herat province, we developed a questionnaire containing 30 items in three sections in Dari language. Dari language is one of the national languages and is one of the most used languages among Herat province population [11].

A group of five female medical students was trained for two hours in one session on how to ask the items of the questionnaire to interact with participants, demonstrate the study goal, and take a consent letter from them. Data was collected from 15 districts of Herat city, and the questionnaire was distributed randomly to people who were willing to participate.

A pilot study was conducted to check the understandability of the questionnaire by 30 females from Herat province. No major changes were required.

The first section of the final questionnaire included the 10 items to get the socio-demographic information of the participants. The items were: Age, Marital status, Strain, Educational level, Husband educational level, Father's educational level, Mother's educational level, Economic status, Occupation, and presence of chronic disease.

The second section contained 8 items to get information related to the knowledge of the participant on abortion. The third section contained 12 items to get information related to the attitude of the participants on abortion. The median of the participants' knowledge score was found to be 2.96 out of 8. As data

distribution was not normal, we considered participants with a knowledge score over the median of the total participants' knowledge score, having a good knowledge score on abortion.

The collected data was entered into IBM SPSS version 24.0 software for windows. Categorical variables are presented in numbers (N) and percentages (%). The Chi-square test was used to observe the difference between categorical variables. A-value was considered as 0.05.

Result

Four hundred nineteen female participants were enrolled in this study. Total 30.3% of them were aged between 18–24 years old. 24.1% of the participants were aged between 25–34 years old. Our 11.2% of the participants were over 54 years old, 78.8% of the participants were married, and 6.7% of them were a widow. Our 35.8% of the participants were Pashtuns by religion, and 38.7% of them were Tajiks. 54.0% of the participants were illiterate, and 22.7% of them were university students or graduated from university. While 38.9% of the participants' husbands were illiterate. Around 60.4% of the participants' fathers were illiterate and 79.2% of the participants' mothers were illiterate. Our 78.8% of the participants had a middle-income economic status and 75.7% of the participants' occupation was housework. Total 6.7% of the participants had a chronic disease. (Table 1)

Table 1
Characteristics of participants (Herat-2021)

Characteristic	Category	N	(%)
Age group in years	18–24	127	30.3
	25–34	101	24.1
	35–44	74	17.7
	45–54	70	16.7
	> 54	47	11.2
Marital status	Single	61	14.5
	Married	330	78.8
	Widow	28	6.7
Strain	Pashtun	150	35.8
	Tajik	162	38.7
	Other	107	25.5
Educational level	Illiterate	227	54.2
	Primary school	26	6.2
	Secondary school	32	7.6
	High school	39	9.3
	University	95	22.7
Husband's educational level	Illiterate	163	38.9
	Primary school	57	13.6
	Secondary school	44	10.5
	High school	52	12.4
	University	42	10.0
Father's educational level	Illiterate	253	60.4
	Primary school	50	11.9
	Secondary school	38	9.1
	High school	40	9.5
	University	38	9.1

Characteristic	Category	N	(%)
Mother's educational level	Illiterate	332	79.2
	Primary school	27	6.4
	Secondary school	31	7.4
	High school	15	3.7
	University	14	3.3
Economic status	High income	11	2.6
	Medium income	330	78.8
	Low income	78	18.6
Occupation	Employed	32	7.6
	Looking for a Job	58	13.8
	Housework	317	75.7
	Other	12	2.9
Presence of chronic disease	Yes	28	6.7
	No	391	93.3
Total		419	100.0

Of all the participants, 41.5% of them heard about safe abortion methods. Our 20.8% of the participants' source of information was their health organizations or health service providers. Total 38.7% of the participants replied that safe abortion services are provided in governmental hospitals only. Our 25.8% of the participants said that they do not know if a safe abortion can prevent future pregnancy problems. Total 42.7% of the participants did not know if Afghanistan has any regulation on abortion. 56.6% of the participants had a good knowledge score on abortion. (Table 2)

Table 2
Participants knowledge and perspective on abortion (Herat-2021)

Variables	Category	N	(%)
Have you ever heard about safe abortion methods	Yes	174	41.5
	No	245	58.5
What is your source of Information on abortion	Health organizations/providers	87	20.8
	University	9	2.1
	Multimedia	10	2.4
	Family/Friends	77	18.4
	Others	10	2.4
	None	226	53.9
Where the safe abortion services are provided	Government hospital	162	38.7
	Personal clinics	45	10.7
	Doctors checkup rooms	22	5.3
	Home	41	9.8
	All of them	19	4.5
	I don't know	130	31.0
Can safe abortion prevent future pregnancy problems	Yes	108	25.8
	No	143	34.1
	Don't know	168	40.1
What is the best time for safe abortion	In the first trimester	237	56.6
	All the time during pregnancy	29	6.9
	I don't know	153	36.5
Is unsafe abortion a serious problem in the society	Yes	189	45.1
	No	70	16.7
	Don't know	160	38.2
Does Afghanistan have any regulation on abortion	Yes	57	13.6
	No	183	43.7
	Don't know	179	42.7

Variables	Category	N	(%)
For what reasons abortion in Afghanistan is legal	Not legal at all	27	6.5
	Abortion is the result of rape	13	3.1
	Mother or baby's in danger	51	12.2
	For women with physical or mental disabilities	6	1.4
	Women who are not physically or mentally ready to have child	1	.2
	Families with bad economic status	10	2.4
	I don't know	311	74.2
Knowledge score	Good	237	56.6
	Poor	182	43.4
Total		419	100.0

Total 91.4% of the participants said the abortion-related topic should not be discussed in the family in front of everyone. Around 74.0% of the participants did not agree that safe abortion services should be legal and accessible for everyone. Our 95.0% of the participants said that abortion using a pill is better than surgery. (Table 3)

Table 3
Participants attitude towards abortion (Herat-2021)

Variable	Category	N	(%)
It is a sin willing to abort the child for any reason and should not be done even if the mother's health is in danger	Yes	263	62.8
	No	156	37.2
It should not be discussed in the family in front of everyone	Yes	383	91.4
	No	36	8.6
The safe abortion services should be legal and accessible for everyone	Yes	109	26.0
	No	310	74.0
Selective abortion should be legal and accessible for everyone	Yes	139	33.2
	No	280	66.8
If a women under 18 years old decide to abort her child, the decision should be respected and act upon it	Yes	77	18.4
	No	342	81.6
The abortion request of the parents should be accepted only if they are economically unable to support their future child	Yes	65	15.5
	No	354	84.5
If a women has unwanted pregnancy or pregnancy is the result of rape, the abortion request should be accepted and act upon it	Yes	171	40.8
	No	248	59.2
Abortion is the right of the man, if he want, pregnancy should be terminated	Yes	59	14.1
	No	360	85.9
Abortion is the right of the woman, if she want, pregnancy should be terminated	Yes	35	8.4
	No	384	91.6
Abortion is the right of the parents, if they both want, pregnancy should be terminated	Yes	150	35.8
	No	269	64.2
Safe abortion services should be legally accessible for everyone in health centers and hospitals	Yes	243	58.0
	No	176	42.0
Pill abortion is better than surgery abortion to terminate pregnancy	Yes	398	95.0
	No	21	5.0
Total		419	100.0

Our 57.5% of the participants who aged between 18–24 years old, 51.5% of the participants who aged between 25–34 years old, 48.6% of participants who aged between 35–44 years old, 58.6% of participants aged between 45–54 years old and 74.5% of participants aged more than 54 had a good level of knowledge on abortion. (Table 4)

Table 4
Association of the participants' age group with their level of knowledge on abortion

Age groups	Knowledge Score	N	(%)	Sig.
18–24 years old	Good	73	57.5	0.055
	Poor	54	42.5	
25–34 years old	Good	52	51.5	
	Poor	49	48.5	
35–44 years old	Good	36	48.6	
	Poor	38	51.4	
45–54 years old	Good	41	58.6	
	Poor	29	41.4	
> 54 years old	Good	35	74.5	
	Poor	12	25.5	
Total		419	100.0	

Of all the participants 64.7% of Pashtuns, 52.5% of Tajik, and 51.4% of other strains had good level of knowledge on abortion. (Table 5)

Table 5
Association of the participants' strain with their level of knowledge on abortion

Strain	Knowledge Score	N	(%)	Mean
Pashtun	Good	97	64.7	1.830
	Poor	53	35.3	
Tajik	Good	85	52.5	1.103
	Poor	77	47.5	
Other	Good	55	51.4	1.057
	Poor	52	48.6	
Total		419	100.0	

Of all the illiterate participants in this study, 46.7% of them had a good level of knowledge on abortion, while 76.9% of participants with high school educational levels had a good level of knowledge on abortion. Total 47.2% of participants whose husbands were illiterate had a good level of knowledge on abortion, while 76.2% of the participants whose husbands had a university educational level had a good knowledge of abortion. Our 51.8% of participants whose fathers were illiterate had a good level of knowledge on abortion, while 57.9% of the participants whose father's educational level was university had a good knowledge of abortion. 53.0% of the participants whose mothers were illiterate had a good level of knowledge on abortion, while 73.3% of participants whose mother's educational level was high school had a good knowledge of abortion. (Table 6)

Table 6
Association of educational level with their level of knowledge on abortion

Variable	Educational level	Knowledge score	N	(%)	Sig.
Self	Illiterate	Good	106	46.7	.000
		Poor	121	53.3	
	Primary school	Good	18	69.2	
		Poor	8	30.8	
	Secondary school	Good	18	56.2	
		Poor	14	43.8	
	High school	Good	30	76.9	
		Poor	9	23.1	
	University	Good	65	68.4	
		Poor	30	31.6	
Husband's knowledge	Illiterate	Good	77	47.2	.000
		Poor	86	52.8	
	Primary school	Good	28	49.1	
		Poor	29	50.9	
	Secondary school	Good	28	63.6	
		Poor	16	36.4	
	High school	Good	41	78.8	
		Poor	11	21.2	
	University	Good	32	76.2	
		Poor	10	23.8	
Father's knowledge	Illiterate	Good	131	51.8	.047
		Poor	122	48.2	
	Primary school	Good	29	58.0	
		Poor	21	42.0	
	Secondary school	Good	29	76.3	
		Poor	9	23.7	

Variable	Educational level	Knowledge score	N	(%)	Sig.
Mother's knowledge	High school	Good	26	65.0	
		Poor	14	35.0	
	University	Good	22	57.9	
		Poor	16	42.1	
Mother's education	Illiterate	Good	176	53.0	.017
		Poor	156	47.0	
	Primary school	Good	22	81.5	
		Poor	5	18.5	
	Secondary school	Good	21	67.7	
		Poor	10	32.3	
	High school	Good	11	73.3	
		Poor	4	26.7	
Total	University	Good	7	50.0	
		Poor	7	50.0	
			419	100.0	

Discussion

This is one of the few studies carried out in Afghanistan that talks about women and abortion. To the best of our knowledge, this study is the first of its kind, which looks at the knowledge, attitude, and practice of women on abortion in Herat province in Afghanistan. Afghanistan is one of the Islamic countries where abortion is illegal unless it's done to save the mother's life [10].

Our study found that more than half of women have overall good knowledge about abortion and abortion laws, with 56.6% know the correct gestation period to undergo induced abortion, whereas 74.2% of women did not know the legal conditions under which abortion is allowed in Afghanistan. Studies conducted in various countries with almost the same demographic characteristics show different results. The studies in Iran about knowledge of women show that 68% of women have knowledge about abortion laws, 49% of them know about crime and wergild for self-induced abortion and for illegal providers [12]. The results vary when studies from non-Islamic LMICs (low-and-middle-income countries) are considered. A study conducted in Bihar and Jharkhand in India shows that 41% of women know about the legality of abortion while few of them know about abortion methods. In addition, the study conducted in Brazil shows that only 47% of people have correct knowledge about abortion [13]. Similar studies conducted in

Zambia, South Africa, Ethiopia, and Mexico found that 16%, 32%, 45%, and 48%, respectively, have the correct knowledge about abortion laws' legality [3, 14-15].

In addition to this, the study conducted in developed countries like the USA on women with low income showed that only 25% know about the abortion laws, whereas 67% of women have the correct knowledge of the age limit for abortion [16].

This study evaluated the attitude of women towards abortion. According to the survey, 62.8% of women think abortion is a sin even if there is a danger to the mother's health, and 74% believe it shouldn't be legal and accessible to everyone. Our results are supported by various studies conducted in other Islamic countries. The study conducted in Saudi Arabia on 32 families about the attitudes on prenatal diagnosis and abortion found that 28 out of 32 families rejected the idea of abortion at first instance [17]. In the study conducted in Palestinian territories, most of the women considered abortion as Haram (religiously forbidden) [18]. In another study about the perception of medical and health sciences students in Jordan, 53.1% of the students considered abortion a murder [19]. The number was high in the study conducted in Turkey, where abortion laws are more liberal with no restriction on abortion without reason [20]. It was found that 80.7% of the respondents believed that abortion is a sin and 74.9% of them felt that abortion, a kind of murder [21].

Additionally, given that Turkey has a unique position owing to its blend of Islamic laws on abortion and secular laws from the Western society, it approves abortion on demand to the 10th week of gestation. However, therapeutic abortion can still be performed beyond 10 weeks of gestation to save the life of the mother and avoid serious complications of the fetus upon the decision of a committee of physicians. This contrasts with the concept of the Turkish Presidency of Religious Affairs on abortion that perceives abortion on demand as a sin and not a right. This greatly affects the attitude of women and healthcare providers towards abortion in Turkey [22]. Also, the study conducted in Iran on midwives shows that 68.7% of them have extremely weak to moderate attitudes towards abortion [23]. In contrast, the studies conducted in USA about the attitudes of abortion shows that 80% of women support that abortion should be legalized in all situations, which differs much from our results [24]. Another study in the USA having a large sample size shows that only 4.1% of participants were against the legalization of abortion [25].

We also found that 59.2% of women think that abortion should not be done even if the pregnancy results from rape. There is a difference in the attitude related to this among various Islamic countries. A study conducted in Turkey shows that only 28.9% of women in the study think that abortion is a sin if it is due to rape [21]. A similar study in Palestine showed that 88.3% of women felt justified if women undergo an abortion due to rape [26].

Our 58% of the respondents believed that safe abortion services should be made legally accessible to everyone in health centers, whereas 42% were of contrary opinion. In another study carried out in Ethiopia, 56% of the women preferred that abortion on demand should be legalized while 41.9% preferred it not to be legalized, even though Ethiopia amended a law that permits abortion under certain special

circumstances. This points out a possibility that attitude and lack of knowledge is a hindrance to safe abortion use [27].

Total 91.4% of the women perceived abortion as a subject that should not be discussed in front of everyone, whereas 8.6% thought it should be discussed in front of everyone. This points towards the stigma associated with abortion. According to a study carried out in Uruguay, decriminalization of abortion contributed towards the reduction of abortion stigma [28].

A survey found that citizens of the Asian Islamic states and North Africa are less likely to approve of abortion than those grown up in Western Europe and North America [29].

In our study, the association of age and knowledge about abortion was not found to be significant. We found percentage of people having good knowledge of abortion in 18-24, 25-34, 35-44, 45-54 and >54 year age groups are 57.5%, 51.5%, 48.6%, 58.6% and 74.5% respectively. The results have been supported by various studies. Studies conducted in Iran also show no significant association of age and knowledge about abortion and its laws [12]. A study conducted in Zambia found no association between age and knowledge about abortion [3]. Similarly, studies conducted in Lagos among female students have found no significant association between abortion and age group [30]. Also, no association was found in the study conducted among the females in Nepal [31]. However, some studies have found a significant association between knowledge and age. A study conducted in Ethiopia among college students found a significant association of age and knowledge, with the age group of >25 have more knowledge about abortion [7].

In our study, there was a significant correlation between ethnicity and knowledge. We found that 64.7% of Pashtuns have good knowledge about abortion, whereas 52.5% of Tajiks have good knowledge about abortion. We haven't found any study which correlates ethnicity and knowledge of abortion.

We found a significant association between the education of the participant, her husband, her mother, her father, and knowledge about abortion. The more educated an individual, her husband, and mother are, the more knowledge they have about abortion. A study conducted in Iran also shows a significant correlation between education and knowledge about abortion and its laws [12]. But the study conducted in Iran on midwives shows no significant correlation between Education levels and knowledge about abortion [23]. Another study conducted in Mexico among youths also shows a significant correlation between the knowledge of abortion and levels of education [32].

Conclusion

A comprehensive campaign on safe abortion covering all the ethical, religious, constitutional, and scientific domains should be considered by the ministry of Public Health. It is recommended that the ministry of education of Afghanistan consider organizing trainings on safe abortion for high school male and female students.

Abbreviations

WHO: World Health Organization

AMSA: Afghanistan Medical Students Association

MoPH: Ministry of Public Health

MVA: Manual Vacuum Aspiration

Declarations

Ethical approval and consent to participate

Ethical approval was obtained from the AMSA Medical Research Center Ethical Committee on 10th March 2021. A detailed description of the study was explained during the initial contact with the participants prior to their participation. A written consent letter was obtained from all the participants involved in this study.

Consent for publication

Not applicable.

Availability of data and materials

The datasets during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing Interest

The authors declare that they have no competing interests.

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Author contribution

AN, DIP, and SB contributed in designing the conception of the study. HA, NR, MA, MY, and MZ contributed in data collection and data entry. AN contributed in data analysis and data interpretation. AN, SJ, AND NE contributed in drafting the article. All the author gave the final approval of the version to be published, and agreed to be accountable for all aspects of work.

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