



Article

Intimate Partner Violence and Pregnancy Termination among Tajikistan Women: Evidence from Nationally Representative Data

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Abstract: Intimate partner violence is the most common kind of violence and a significant public health issue. The relationship between intimate partner violence and pregnancy termination among Tajikistan women was investigated in this study. The data for this research was collected from the Tajikistan Demographic and Health Survey 2017. This research has used the data of married women aged between 15 to 49 years. The findings from the study indicate that around 23.2% of married women in Tajikistan have experienced physical violence. The respondent's age, region, and employment status was significantly associated with pregnancy termination ($p < 0.05$). Similarly, women who can refuse sex with their partner and ask their partner to use a condom are more likely to terminate pregnancy ($p < 0.05$). The characteristics of the husband or partner that had a significant positive association with pregnancy termination of married women in Tajikistan are age, educational level, and alcohol drinking status of their husbands ($p < 0.05$). This study also establishes the significant relationship between pregnancy termination and physical or emotional violence experienced by women ($p < 0.05$). The dynamics of domestic abuse need to be understood by healthcare providers to aid women in making decisions on whether or not to terminate their pregnancy.

Keywords: pregnancy; intimate partner violence; Tajikistan; women



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1. Introduction

Violence against women is a global public health issue [1]. Intimate partner violence is the most common kind of violence, and is a significant public health issue [2]. Although previously intimate partner violence (IPV) was considered a private family matter, however, in the last 30 years, it has been recognized as a significant social concern that includes physical and mental health consequences [3]. Around 30% of women over the age of 15 have experienced physical and sexual violence from intimate relationships [4]. Domestic violence or intimate partner violence is a form of physical, sexual, and emotional abuse carried out by a person with whom the victim shares an intimate partner relationship [5].

The prevalence of lifetime IPV range from 20% in the Western Pacific region, around 22% in high-income countries and Europe, 25% in the Americas, 33% in the African region, 31% in the eastern Mediterranean region, and 33% in the Southeast Asia region [6].

Violence against women has become one of the significant issues in Tajikistan [7], and about 53.8% of Tajikistan women have reported instances of IPV from their partners [8]. In Tajikistan, most women believe that domestic violence against women, especially wives, is

an integral part of marriage, and is assured and accepted under certain conditions [9,10]. The unequal power disparities between men and women in Tajikistan support patrilinear structures, with the normalization and acceptance of violence against young women and older women [7,10,11]. In 2017, around 31% of women who have ever been married reported that they had experienced some other kind of violence by their husband/partner, increasing by 7% since 2012 [12].

Any pregnancy that ends before delivery is considered a pregnancy termination, and pregnancy termination includes both induced abortions and spontaneous terminations, such as miscarriage and stillbirth [13]. Pregnancy termination is considered a significant public health problem globally [14]. The World Health Organization (WHO) claims that around 56 million cases of abortion are recorded worldwide, with 34 million legal abortion cases annually [14].

Intimate partner violence is related to human rights violations, and has a major impact on women with regards to their physical, mental, social, and sexual health [15]. IPV may directly impact women's reproductive and sexual health, such as through sexually transmitted infections [16–19], pregnancy loss, miscarriage, or abortion [20,21]. Among all maternal deaths globally, approximately 80% of the deaths are related to pregnancy [22]. Globally, many women terminate their pregnancy, and nearly half of the terminations take place in unsafe conditions, leading to further health complications. Unsafe termination is responsible for 10% of maternal deaths [23]. The majority of maternal deaths are reported in developing countries. The evidence shows that mortality is higher, with 290 deaths for every 100,000 births than in developed countries, whose mortality rate is just 14 per 100,000 births [24]. Women with live births, stillbirths, induced abortions, or miscarriages are more prone to death [25–27]. In developing countries, induced abortions may be carried out in non-hygienic settings, and are considered a high-risk factor for maternal deaths [28,29].

Few studies state that low socioeconomic status, financial issues, and minimal or refused education are associated with intimate partner violence [30]. Women residing in low-income families with men with little or no education coupled with substance abuse are more vulnerable to IPV(10).

The increased rate of intimate partner violence has been recognized in the population [31]; hence, the enthusiasm for learning more about the link between intimate partner violence and pregnancy outcomes such as termination and abortion has grown [32,33]. Various studies have evaluated the link between intimate partner violence and its consequences, including sexual and reproductive health outcomes and maternal morbidity [34,35]. A study conducted in India reports that women who experienced violence from their husbands were twice as likely to lose a fetus [36]. Even after controlling a few factors such as poverty, poor maternal health and forced termination of pregnancy are on the rise due to IPV [37].

According to the Council of Europe on Istanbul Convention Action against violence against women and domestic violence, preventing violence against women and any kind of violence to women is not only the responsibility of the state, but it is also the responsibility of the men and boys to make society free from all forms of violence against women [38]. The United Nations mentioned that violence against women and girls is considered a consistent and devastating human rights violation [39].

In New Zealand, a study reports that, of women who are attending pregnancy termination services in their lifetime, half of them say they have been victims of physical or sexual violence [40], which indicates a higher prevalence of intimate partner violence among the women seeking pregnancy termination compared to average women (36%) [31].

Studies on domestic violence are not rare in Tajikistan, but very little is known about pregnancy termination among women and the relationship with domestic violence. To the best of our knowledge, this is the first study to explore the relationship between intimate partner violence and pregnancy termination using nationally representative data.

2. Materials and Methods

2.1. Data Source

This is a secondary data analysis of the Tajikistan Demographic and Health Survey (TjDHS) 2017, conducted in Tajikistan by the statistical agency under the presidency of the Republic of Tajikistan, in partnership with the Ministry of Health and Social Protection. This is the second Demographic Health Survey conducted in Tajikistan funded by the United States Agency for International Development (USAID).

2.2. Sample Design

Tajikistan is categorized into five administrative regions—Districts of Republican Subordination (DRS), Gorno-Badakhshan Autonomous Oblast (GBAO), Khatlon, Dushanbe, and Sughd. Each region is subdivided into two areas: urban and rural. The sampling frame of the data includes all of the country's urban and rural areas, as well as a list of enumeration areas (EAs) and natural villages. Furthermore, the survey's primary sampling units (PSUs) are EAs in urban areas and natural villages in rural areas. The TjDHS 2017 employed a stratified sampling design in two stages. In the first stage, primary sample units were selected from each sampling stratum, with a probability proportionate to their size. A total of 366 clusters were chosen, 166 of which were urban, and 200 were rural areas. Using probability systematic sampling, 22 households were chosen from each cluster in the second step.

A total of 8064 households were chosen for an interview. The eligibility criteria used to select the participants were as follows:

- (1). Women of age 15–49;
- (2). Permanent residents of the selected households;
- (3). Visitors who stayed in the households the night before the survey.

A total of 10,799 women were identified, and 10,718 women were interviewed.

2.3. Data Collection

Data collection was performed from 8th August until 11th November 2017. TjDHS 2017 used three types of questionnaires—woman's questionnaire, biomarker questionnaire, and household questionnaire. After finalizing all of the questionnaires, they were translated from English to Russian and Tajik. This study used a woman's questionnaire for data analysis. Before the final data collection process, the survey team conducted pretesting of the questionnaires. During the fieldwork of the data collection process, proper monitoring was performed by the technical team to ensure the quality of the data. The Institutional review board approved the TjDHS research instrument of ICF, and the women's questionnaire was validated by pretesting with 11 women for 4 weeks [41]. For this study, we have used the women's background characteristics, women's empowerment, and domestic violence information from the women's questionnaire.

2.4. Data Analysis

Both descriptive and inferential statistical analyses were performed. Descriptive statistics, such as frequency distribution, were performed on the participants' background characteristics, husband/partner background characteristics, and alcohol drinking status. Additionally, the prevalence of physical, emotional, and sexual violence was measured as part of a descriptive analysis. Inferential statistical analysis included Pearson chi-square analysis between the background characteristics of participants and their husband/partner's characteristics with pregnancy termination. Furthermore, different types of violence were compared with pregnancy termination using chi-square analysis. A p -value of <0.05 was taken as statistically significant. All analyses were conducted using IBM SPSS statistical software version 26.0 (IBM Corporation, Armonk, NY, USA). Missing data were not taken into consideration during analysis.

Variables of the Study

This research has used two types of independent variables:

(1). Woman’s characteristics

- Place of residence were categorized as Urban and rural;
- Region—Tajikistan is divided into five administrative regions: Dushanbe, Sughd, Khatlon, DRS, and GBAO;
- The highest education level of respondents was categorized as—no education, primary education, secondary education, and higher education;
- The wealth index was divided into poorest, poorer, middle, richer, richest;
- The age group of respondents was categorized as 15 to 24 years, 25 to 34 years, and over 35 years;
- The number of children in the household was categorized into- no children, one child, two children, and more than three children;
- Employment status was categorized into ‘Yes’ and ‘No’. ‘Yes’ means those who were employed at the time of survey, and ‘No’ means who were not employed;
- Can refuse sex has dichotomic options such as ‘Yes’ and ‘No’. Here, ‘Yes’ means respondents can refuse to have sex with partner, and ‘No’ means respondents cannot refuse to have sex with partner;
- Ask a partner to use a condom has dichotomic options- ‘Yes’ and ‘No’. ‘No’ means that respondents cannot ask their partner to use a condom, ‘Yes’ means respondents can ask their partner to use a condom.

(2). Husband characteristics

- Husband age was categorized as 18 to 25 years, 26 to 35 years, 36 to 45 years, and 46 years and above;
- Husband drinks alcohol variable has dichotomic options No and Yes;
- Husband’s educational level was categorized as—no education, primary education, secondary education, higher education, and they don’t know their partner’s educational level.

The following dependent variables are used in this research

(3). Intimate partner violence

Intimate partner violence was divided into physical violence, sexual violence, and emotional violence.

This questionnaire asked a series of questions to measure physical, sexual, and emotional violence.

To measure physical violence, the following questions were asked to the respondents:

	Have you been pushed, shaken, or thrown something at you by your husband/partner?
	Have you been slapped by your husband/partner?
Physical Violence	Have you been punched or hit by something by your husband/partner?
	Have you been kicked or dragged, or beaten by your husband/partner?
	Have you been choked or burnt by your husband/partner?
	Have you been threatened or attacked by your husband/partner?

Respondents who replied “yes” were considered to have “experienced physical violence”, while those who answered “no” were judged to have “not suffered physical violence”.

To measure sexual violence, the following questions were posed to the respondents:

Sexual Violence	Have you been physically forced to have sexual intercourse with your husband/partner?
	Have you been physically forced to perform any other sexual acts by your husband/partner?
	Have you been forced threatening or any other way to perform sexual acts by your husband/partner?

Under sexual violence, “have you ever experienced sexual violence” is the question, and the responses “yes” and “no” were offered. The respondents who said “yes” were judged to have “experienced sexual violence” whereas those who said “no” were considered to have “not experienced sexual violence”.

To measure emotional violence, the following questions were posed to the respondents:

Emotional Violence	Have you had something said or done to humiliate you in front of others by your husband/partner?
	Have you been threatened with hurt or harm to yourself or someone close to you by your husband/partner?
	Have you been insulted or made to feel bad about yourself by your husband/partner?

The question “have you ever encountered emotional violence” quantified emotional violence with yes/no answers. Those who said “yes” were said to have “experienced emotional violence”, whereas those who said “no” were said to have “not experienced emotional violence”.

(4). Pregnancy termination

Under pregnancy termination, the question used to measure was “whether the individual has ever had a pregnancy that ended in miscarriage, abortion, or stillbirth”, with yes/no answers offered.

The respondents who said “yes” were considered to have “ever had a pregnancy terminated”, whereas those who said “no” were considered to have “never had a pregnancy terminated”.

2.5. Ethical Aspects

The Tajikistan Demographic and Health Survey data is open to the public, and has been appropriately anonymized in advance. As this research study relied on publicly available data, no further ethical committee approval from an Institutional Review Board was sought.

3. Results

Table 1 shows the background characteristics of the respondents. The background characteristics of the respondents reveal that out of 10,718 women, around 60.7% were from rural areas, and the remaining 39.3% came from urban areas. Around 30% of respondents were from Khatlon, 23.1% were from DRS region, 20.9% were from Sughd, followed by Dushanbe (16.9%), and GBAO (9.1%). The respondents with no formal education were less (1.8%) than the women who had secondary education (73.1%). Around 21.3% of women completed higher education, and 3.8% of women had primary education. Table 1 also shows the wealth index: around 18.5% fell under the poorest category, and 31.3% of respondents fell under the richest category. Among all the women, around 35.9% of respondents were between 15–24 years of age, followed by 25–34 years of age (32.1%), and 32% of respondents were over 35 years. Approximately 41.9% of women have no children, and 14.9% of women have more than three children in their family. According to employment status, around 24.2% were employed.

Table 1. Background characteristics of the married women and their husband/partner in Tajikistan.

Characteristics	Frequency	Percentage
Place of residence		
Urban	4212	39.3
Rural	6506	60.7
Region		
Dushanbe	1814	16.9
Sughd	2235	20.9
Khatlon	3217	30
DRS	2479	23.1
GBO	973	9.1
Highest educational level		
No education	193	1.8
Primary	408	3.8
Secondary	7832	73.1
Higher	2285	21.3
Wealth index		
Poorest	1978	18.5
Poorer	1693	15.8
Middle	1753	16.4
Richer	1934	18
Richest	3360	31.3
Age Group		
15–24	3850	35.9
25–34	3441	32.1
35+	3427	32.0
Number of children		
0	4494	41.9
1	2648	24.7
2	1976	18.4
3+	1600	14.9
Employment status		
Yes	2593	24.2
No	8125	75.8
Can refuse sex		
No	3405	45.1
Yes	4140	54.9
Husband drinks alcohol		
No	4370	40.8
Yes	943	8.8
Husband's age		
18 to 25 years	798	7.4
26 to 35 years	3068	28.6
36 to 45 years	2193	20.5
46 years and above	1485	13.9
Ask Partner to use condom		
No	3643	48.3
Yes	3902	51.7

Around 45.1% of women report that they cannot refuse sex with their husband/partner. Concerning alcohol drinking habits, 8.8% of women stated that their husband/partner consumes alcohol. Approximately 28.6% of the women's husband/partner's age is between 26–35 years, and around 20.5% of respondents' husband/partner's age is between 36–45 years. Around 48.3% of women reported that they could not ask their partner to use a condom.

Table 2 shows the prevalence of physical, sexual, and emotional violence among married women in Tajikistan. The most common kind of violence that married women encounter in Tajikistan is physical violence (23.2%), followed by emotional violence (15.5%). Around 1.8% of respondents reported that they had experienced sexual violence.

Table 2. Prevalence of physical, sexual, and emotional violence among married women in Tajikistan.

Type of Violence	Frequency	Percentage
Physical	1230	23.2
Sexual	98	1.8
Emotional	824	15.5

Table 3 shows the cross-tabulation between the pregnancy termination of women and other independent variables. Chi-square tests show that almost the same percentage of respondents, 19.8% from urban areas and 19.4% from rural areas, experienced pregnancy termination. Respondents from the Sughd region were most likely to terminate pregnancy ($p < 0.05$). The results also showed that the experience of pregnancy termination is higher in respondents with secondary and higher secondary education compared to the respondents without education and primary education. Women belonging to richer family background were more likely to pregnancy termination compared to women from other wealth index groups. Chi-square tests also show that around 32.4% of respondents over 35 years of age had experienced a pregnancy termination. The age of the respondents is significantly associated with pregnancy termination ($p < 0.05$). Women with one child (21.1%) were likely to undergo a pregnancy termination compared to women with two children. Employed women were more associated with pregnancy termination ($p < 0.05$) than unemployed women. The women who can refuse sex with their partner and ask their partner to use a condom were significantly more associated with the termination of pregnancy ($p < 0.05$). Husband/partner alcohol drinking status and higher educational attainment were also significantly more associated with pregnancy termination ($p < 0.05$). Analysis also shows that, among the women who experienced pregnancy termination, around 34.3% of their husbands belonged to the age group 36–45 years.

Table 3. Cross-tabulation between pregnancy termination and background characteristics of married women and their husband/partner in Tajikistan.

Variables	Pregnancy Termination		
	Yes (%)	No (%)	<i>p</i> -Value
Place of residence			
Urban	19.8	80.2	0.657
Rural	19.4	80.6	
Region			
Dushanbe	16.3	83.7	0.000
Sughd	22.7	77.3	
Khatlon	21.0	79.0	
DRS	17.3	82.7	
GBAO	19.3	80.7	
Highest educational level			
No education	17.1	82.9	0.284
Primary	16.4	83.6	
Secondary	19.9	80.1	
Higher	19.3	80.7	

Table 3. Cont.

Variables	Pregnancy Termination		<i>p</i> -Value
	Yes (%)	No (%)	
Wealth index			
Poorest	18.0	82.0	
Poorer	19.3	80.7	
Middle	19.6	80.4	0.067
Richer	21.7	78.3	
Richest	19.3	80.7	
Age Group			
15–24	4.9	95.1	0.000
25–34	23.2	76.8	
35+	32.4	67.6	
Number of children			0.116
0	19.1	80.9	
1	21.1	78.9	
2	18.5	81.5	
3+	19.5	80.5	
Employment status			0.000
Yes	25.9	74.1	
No	17.6	82.4	
Can refuse sex			
No	22.8	77.2	0.000
Yes	29.0	71.0	
Husband drinks alcohol			
No	24.9	75.1	
Yes	33.8	66.2	0.000
Husband's age			
18 to 25 years	6.5	93.5	
26 to 35 years	21.9	78.1	
36 to 45 years	34.3	65.7	
46 years and above	33.8	66.2	0.000
Husband's educational level			
No education	16.7	83.3	
Primary	18.9	81.1	
Secondary	24.6	75.4	0.000
Higher	29.2	70.8	
Don't know	50	50	
Ask Partner to use condom			
No	22.9	77.1	0.000
Yes	29.3	70.7	

Table 4 shows the cross-tabulation between pregnancy termination and violence experienced by married women in Tajikistan. Among the married women who experienced

physical violence, 34% experienced pregnancy termination. Similarly, among the women who experienced sexual and emotional violence, approximately 30% of them were more likely to have pregnancy termination. Pregnancy termination had a significant association with physical and emotional violence ($p < 0.05$), but no significant association with sexual violence.

Table 4. Cross-tabulation between pregnancy termination and violence experienced by married women in Tajikistan.

Type of Violence	Pregnancy Termination		
	Yes (%)	No (%)	<i>p</i> -Value
Physical	34	66	0.000
Sexual	29.6	70.4	0.476
Emotional	29.4	70.6	0.038

4. Discussion

In Tajikistan, violence against women is still a significant concern [8]. Violence is also considered to be one of the main reasons for maternal mortality and morbidity [23]. Worldwide, maternal deaths primarily occur due to reasons associated with pregnancy [22]. There is still a gap in the literature, as there is no research so far on intimate partner violence and its relationship with pregnancy termination among married women in Tajikistan. This study has added pregnancy termination information to the already available information related to intimate partner violence in Tajikistan.

In this study, the prevalence of physical intimate partner violence was 23.2%, and emotional violence was 15.5%. In contrast, the number of women who reported physical and/or sexual intimate partner violence was 3.5% in Armenia, while it was 46% in Afghanistan [42]. However, there are a few countries with higher levels of both emotional and physical and/or sexual intimate partner violence, such as Cameroon (32.1% and 31.4%), Tanzania (28.1% and 29.5%), Afghanistan (34.4% and 46%), and Colombia (30% and 33.3%) [42]. This study states that women of the age group over 35 are more likely to undergo the termination of a pregnancy; similar findings were reported in Armenia (61.41%) [43] and Nigeria (47%) [44], whereas younger women are more likely to pregnant termination in New Zealand [45]. However, in the United Kingdom, women over 20 years of age are more likely to request a termination of pregnancy than women younger than 20 years of age [46]. Similar findings were reported in Sweden [47]. There is increased number of women from rural areas who have experienced pregnancy termination in Armenia [43] and Ethiopia (80.9%) [48], whereas this study shows no significant difference in the number of women in rural and urban areas experiencing pregnancy termination. However, in New Zealand, women living in urban areas were 1.8 times more likely to undergo pregnancy termination when compared to women living in rural areas (10.6%) [45]. More women with higher education levels had experienced termination of pregnancy when compared to the women with primary and secondary education in New Zealand [45]. However, this study's findings state that an increased number of women with secondary and higher education had experienced pregnancy termination, whereas a study conducted in Armenia states that the termination of pregnancy was higher in women with primary or less education level [43]. Similar findings were reported in a few studies that women without education [49,50] or with primary education had an increased risk of termination of pregnancy in comparison to women with higher education levels [1,51]. However, findings from Ethiopia (65.1%) and Bangladesh (30%) state that women without education are more likely experience pregnancy termination [48,52].

The findings from Armenia state that women from poorer family backgrounds are more likely to undergo pregnancy termination than women from another wealth index [43]. However, a different trend was reported in another study [53], where women from low-income families had a reduced risk for induced abortion. This study reports that women

from richer family backgrounds are more likely to undergo pregnancy termination than women from other wealth indexes. In contrast, in Ethiopia, women from the richest background (23.2%) are more likely to undergo pregnancy termination [48]. This study reports that women with one child are more likely to undergo pregnancy termination, whereas in New Zealand, Armenia, and Ethiopia, women with higher parity are more likely to undergo a pregnancy termination [43,45,48]. The likelihood of pregnancy termination is higher in employed women in Tajikistan. Similar findings were reported in Armenia [43] and Ethiopia (58.6%) [48]. However, another study also reported that unemployed women are less likely to terminate their pregnancy when compared to employed women [44]. Similarly, there is evidence that the number of women not in employment seeking termination of pregnancy measures 47%, and 18% of women who seek the termination of their pregnancy are employed, respectively [47,51].

Failure to use contraception (58%) or contraception failure (42%) are the main reasons for the occurrence of pregnancy, of which 94.9% decided to abort after discussing it with their partner [46,54]. The findings of our study show that 29.3% of women who can ask their partner to use condoms and 29% of women who can refuse to have sex with their partners have experienced a termination of pregnancy. At the same time, another study states that 4 among 13 women reported contraindicatory behavior of their partners in family planning, such as not allowing them to use birth control methods, and then demanding the women to terminate the pregnancy [55].

In a study conducted in Nigeria, women who have been physically and sexually assaulted are more likely to have a pregnancy termination [44]. In contrast, the findings of this study state that there is a significant association between pregnancy termination and women who have experienced physical and emotional violence. However, women who have experienced physical violence at the hands of an intimate partner are more likely to undergo a pregnancy termination in Tajikistan. Similar findings have been reported in Bangladesh [52] and Sweden [47], with a significant positive association between intimate partners violence and women experiencing termination of pregnancy. A study conducted in Armenia reported that women victims of sexual violence are ten times more likely to experience pregnancy termination [43]. Approximately 89.5% of women who experienced intimate partner violence underwent a pregnancy termination in Iran [56,57].

The strength of our study is that the sample size was relatively large to provide us with an accurate result. This research is based on nationally representative data which were pre-tested with well-designed questionnaires, and qualified and educated interviewers were recruited to obtain reliable data. However, we recognize that there are some limitations in our study. Our study lacks the control of researchers due to the use of secondary data. This study also limits the possibilities of analysis due to the cross-sectional structure of the study. It prevents an interim assessment of the relationship between intimate partner violence and the termination of a pregnancy or casual conclusions in partnerships.

In this study of correlations of results from a large country survey in 2017, we attempt to analyze the relationship between intimate partner violence and the termination of pregnancy. The association is strong, but we are unable to draw causal conclusions. Healthcare professionals need to be trained to screen for abuse, carry out risk assessments, and provide safety plans for women at risk. Staff can also train women to recognize abuse early, and to contact local domestic violence agencies for help with personal safety and with decisions about pregnancy when domestic partners are violent.

This study provides previously unavailable information on pregnancy termination and its relationship with intimate partner violence among married women of Tajikistan. The study results have implications for future research. Future research studies are needed to provide a clear idea to determine the mechanisms through which intimate partner violence leads to termination of pregnancy, and the long-term effects of intimate partner violence and pregnancy termination on women.

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