



# Association of Domestic Violence and Other Factors with Miscarriage in Women of Pakistan: A Correlational Study Using Data from Demographic and Health Survey 2018.

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**Abstract: Background:** Gender based violence has become a part of the culture in all developing and poorly civilized societies. According to a report of CDC study, 0.9 percent to 20.1 percent of women experience some form of abuse during pregnancy. It is understood that violence in pregnancy may increase the risks of pregnancy complications and even termination. This paper aims to compare the significance of different causative factors of miscarriages including domestic violence in Pakistan using the Demographic and health survey 2018 data set. **Method:** We have performed secondary analysis by using Pakistan Demographic and Health Survey data set 2018 to obtain variables related to domestic violence and other factors that can affect the outcome of pregnancy. For bivariate analysis we applied the Chi-square test between the occurrence of miscarriage as the dependent variable and domestic violence, socioeconomic class, education status, employment status, antenatal and post-natal care as independent variable. **Results:** According to the statistical analysis (Chi-square test) results domestic violence has a significant association with miscarriages ( $p$  value=0.000). Some other factors that have a significant association with miscarriages include the Education level of respondents, wealth index, region, employment status of the respondent and respondents who earn more.. Some other variables that have a lesser significant association with miscarriages are, utilization of prenatal care and antenatal care. **Conclusion:** According to our study, miscarriages are strongly associated with domestic violence. This issue is a public health concern and needs to be addressed seriously.

**Keywords:** domestic violence; miss-carriage; PDHS 2018

## 1. Introduction

Gender-based violence is a highly critical and sensitive social, cultural, and public health concern globally that has been ignored especially in the east for decades. Gender based violence is defined, by the United Nations, as any kind of activity that is related to sex-based violence or abuse which can result in physical, sexual, emotional or mental harm or trouble to women and it includes even the threats of such actions, forceful subjugation, or general social control of their liberty in either or both their public and personal life. According to a recent study conducted by World Health Organization (WHO), 35% of women around the globe suffer from either physical and/ or sexual violence by their intimate partner or generally sexual abuse. In some of the developing or underdeveloped countries, this value of incidence is even much higher than this. In some westernized and developed countries, like the United States of America, around 1.5 million women report some form

of abuse every year, which highlights the seriousness of the situation. This figure includes up to 324000 pregnant women at the time of the abuse (Vinnakota D et al; 2017).

One of the contributing factors towards gender based violence is patriarchal mindset. Patriarchy is a phenomenon that is generated and cultivated in a society by gradually restructuring the mindsets of community by organization of gender-based political relations over the time which in turn affects their mentality, spirituality, their social and political values as well as their economy (Tracy, 2007). It is not only created and maintained but also reinforced by a diversity of institutions which are closely linked with each other for the purpose of achieving an agreement about women's role and their comparatively lesser value in the society. These institutions are interconnected not just to enhance the supremacy of men over women, but they are also linked with other systems of omission, subjugation and dominance based upon factual or perceived inequality among humans which results in outcome that is solely beneficial for the interests and requirements of a certain class of privileged men. (Hadi, 2017; Bettman, 2009)

Patriarchal ideology is very deeply rooted in Pakistani society which as a result forces women's subordination. Patriarchal command over women is generally kept in practice through sex-based discrimination and gradually structured morally lower standards of conduct, gender sequestration, and nurturing of the mental orientation that family honor is related to virtuousness of their female family members. Defective, disgraceful, and annihilating conventional grooming aimed at maintaining women's subordination are defended and sanctified as ethnic customs with the perception that is religious way of living. Killing women in the name of honor, rape, sexual violation, sexual mistreatment, acid assaults, being burned alive, being kidnapped, violence at home, murder based on dowry demands, forced marriages, guardian abuse, and torture are all examples of traditional practices in Pakistan which are immoral and against basic human rights and freedom. According to report of a 2011 poll conducted by the Thomson Reuters Foundation, Pakistan is at the third number on the list of world's most dangerous to live countries for women. The survival of the patriarchal system needs the persistence of violence. To find the prevalence of overall sex-based abuse and violence in Pakistan research has been done using existing data in recent studies but they did not address the complication of miscarriage as a consequence of domestic violence. All forms of sex-based violence are practiced for the purpose of ensuring women's obligingness (Ashraf, 2017). To end this hostility against women, the patriarchal system must be altered, which can only be established by strengthening women's role in the social, political, as well as economic positions. Some of the other factors that can contribute towards gender based violence are low literacy rate, unemployment, joint family system, socioeconomic class and no desire for pregnancy by husband (Brown, 2014; Kaur & Garg, 2010)

According to a report of CDC study, 0.9 percent to 20.1 percent of women experience some form of abuse during pregnancy. These values depend upon the study population, environment, and the frequency of questioning. Researchers haven't been able to determine whether violence begins, ends, or rises during pregnancy. However, it is understood that violence in pregnancy may increase the risks of pregnancy complications and even termination. Pregnancy, in other words, does not shield women against abuse. Generally women are more prone to violence from their partners or family during pregnancy period due to various reasons. The frightening level of prevalence rates of physical abuse identified in the expecting women and/or the postpartum period reflect this situation. Pregnancy was established as one of the six major risk factors for domestic murders in 56 domestic based killings in a UK study that was conducted in London from 2001-2002. From the numerous inherent reasons for gender-based violence against women in Pakistan, high rate of impoverishment and illiteracy are the most common factors. Furthermore, domestic violence was also found out to be a consequence of daily conflicts, family-related problems, undesired pregnancy by husband, and the drug addiction problem of husbands. (Vinnakota et al, 2017). The present study specifically has been set up to highlight the significance of different causative factors of miscarriages including domestic violence in Pakistan using the Pakistan Demographic and Health Survey (PDHS) 2018 data set.

## 2. Materials and Methods

We used data-set 2018 of PDHS survey to determine different variables that can have a direct or indirect effect on pregnancy resulting in miscarriage. These surveys have information about demographics, reproductive health, fertility, healthcare utilization, nutritional status, domestic violence, immunization, family planning and nutritional status of women and infants, smoking habits of respondents and their spouses as well as their educational and employment status. These surveys are

done in multiple stages i.e. building of strata on the urban and rural basis, and selection of households from each of these strata by random sampling method.

### 2.1 Operationalization

Our study focused on demographics, personal information, the behavior of a spouse, health choices, lifestyle of both women and their spouse, and domestic violence leading to miscarriages in women. Past studies in various countries have shown a positive relationship between domestic violence and miscarriages. We compared not only domestic violence but many other factors i.e education status, wealth index, employment status and utilization of healthcare services that could have an impact on pregnancy in the form of miscarriage in women of Pakistan who participated in PDHS 2018.

### 2.2 Sample size

The sample size for the present study is 2557. It includes only those women who responded to the domestic violence and miscarriage questions. We applied a filter to the total respondents' data set by selecting the respondents whose responded to variable V288 (miscarriage experience) was 1=yes only and used the resulting sample size i.e. 2557.

### 2.3 Instrumentation

Miscarriage was taken as the dependent variable and domestic violence along with some other factors i.e education status, wealth index, employment status and utilization of healthcare was taken as independent variable. Other variables including age of respondent at first birth, number of pregnancy losses, and the interval between births were re-coded to make more suitable variables with a range that are easy to analyze.

### 2.4 Statistical analysis

For bivariate analysis, we applied the chi-square test to test the significance of the association between miscarriage and all the independent variables including domestic violence. Frequency and percentages were also calculated statistically along with the chi square analysis.

## 3. Results

According to the statistical analysis we performed (Chi square test), the results showed that physical domestic violence has a significant association with miscarriages (p value=0.000). Some other factors that have a significant association with miscarriages include Education level of respondent with 52% in women with no education had ever experienced pregnancy termination, in wealth index; 23.5% women from poorer class, in region; 23.3% women in Sindh, for employment status of respondent; 88.4% women had experiences of pregnancy termination. Some other variables that showed a lesser significant association with miscarriages are utilization of; pre-natal care (p value= 0.185), antenatal care (p value=0.919). The detailed percentages and p values are shown in Table 1.

**Table 1: Bivariate Analysis between Domestic Violence and all other independent variables with Miscarriages**

Characteristics	Ever had terminated pregnancy				*P-value
	No		Yes		
	f	%	f	%	
<b>Highest education level</b>					
No education	911	52	392	48.8	0.000
Primary	235	13.4	118	14.7	
Secondary	335	19.1	180	22.4	
Higher	272	15.5	114	14.2	

<b>Wealth index combined</b>					
Poorest	345	19.7	172	21.4	0.000
Poorer	412	23.5	173	21.5	
Middle	326	18.6	166	20.6	
Richer	335	19.1	141	17.5	
Richest	335	19.1	152	18.9	
<b>Husband/partner's education</b>					
No education	495	28.2	213	26.5	0.000
Primary	241	13.7	117	14.6	
Secondary	586	33.4	291	36.2	
Higher	430	24.5	183	22.8	
Don't know	1	0.1	0	0.0	
<b>Region</b>					
Punjab	372	21.2	217	27.0	0.000
Sindh	409	23.3	150	18.7	
KPK	236	13.5	105	13.1	
Baluchistan	243	10.8	87	10.8	
Others	493	34.4	245	37.4	
<b>Respondent currently working</b>					
No	1550	88.4	144	17.9	0.000
Yes	203	11.6	660	82.1	
<b>Prenatal: doctor</b>					
No	405	62	323	54.2	0.185
Yes	555	38	290	45.8	
<b>Antenatal care: private hospital/ clinic</b>					
No	405	71	345	63	0.919
Yes	550	29	287	37	
<b>Respondent earns more than husband/partner</b>					
More than him	23	10.9	23	16.4	0.001
Less than him	153	72.5	94	67.1	
About the same	24	11.4	17	12.1	
Husband/partner doesn't bring in money	4	1.9	4	2.9	
<b>Beating justified if wife refuses to have sex with husband</b>					
No	1187	67.7	523	65.0	0.000
Yes	498	32.3	258	35.0	
<b>Beating justified if wife burns the food</b>					
No	1406	80.2	619	77.0	0.000
Yes	306	19.8	172	23.0	
<b>Beating justified if wife argues with husband</b>					
No	1106	63.1	498	61.9	0.001
Yes	606	36.9	294	38.1	

<b>Beating justified if wife neglects the children</b>					
No	1217	69.4	548	67.4	0.000
Yes	488	30.6	253	32.6	
<b>Beating justified if wife goes out without telling husband</b>					
No	1086	62	502	62.4	0.001
Yes	625	38	294	37.6	

#### 4. Discussion

Gender based violence has become a part of the culture in all developing and poorly civilized societies. One of the factors contributing to its prevalence is patriarchal mindset. It has negative consequences on the health and empowerment of women (Hadi, 2017). Patriarchal culture is very persistent in our society which has made life of a working woman very difficult in a way that her spouse and in-laws think of her as a threat to their current system of authority so domestic violence and ratio of miscarriages is more where the woman is working and especially if she is earning more than her spouse and when illiteracy rate is higher. (Kaur & Garg, 2010). The results of our study are consistent with this body of scientific knowledge. The major factors that influence the occurrence of domestic violence include low education of the husband, low socioeconomic class, and wife being a working woman, patriarchal environment as well as pressure from family members in a joint family system. (Rabbani, Qureshi & Rizvi, 2008)

Apart from these factors the legal and political infrastructure, law and order and justice system also structure the system of sex-based violence against women in any country. Despite of the increasing number of cases of domestic violence, all the successive governments have been failed to address this issue in an effective manner. According to the report of an international NGO, domestic violence is the biggest threat to the safety of women in Pakistan. (Pakeeza, 2015; Akram, 2021)

Another study done by Khan and Hussain (2008) concluded that the literacy level of women, awareness of her basic and specific rights, and financial orientation are the primal factors that can result in reduction of women's acceptance and subjugation to domestic violence. Regrettably, in Pakistan, domestic violence is generally acceptable by the society overall and intimate partner violence is considered a normal action within a marriage.

The high frequency of this inherent habit of abusing women takes different forms and has a lot of negative effects on the progressive development of the nation, especially in rural areas of the country. The forms of abuse against women range from sociocultural to organizational level including several forms like physical abuse, killing in the name of honor, wani and watta-satta. (Pakeeza, 2015). Women are generally more vulnerable to domestic violence during pregnancy and it leads to various negative outcomes on the pregnant woman's health in the form of physical, emotional and psychological trauma and in the worst case scenario it can also lead to miscarriage. (Karmaliani et al., 2008)

Our study highlights and recommends that prevalence of domestic violence and miscarriages is very high in Pakistan and the number keeps on increasing as being highlighted through media so it should be given proper attention by the policy makers and the governments to improve the women's safety index in Pakistan.

#### 5. Conclusions

Domestic violence of any type can have negative effects on the outcome of pregnancy. There are many studies about this prevalent issue in Pakistan but nothing serious has been done so far to mitigate it. Most influencing factors are lack of education, employment status, patriarchal mindset of husband and his family members with the pregnant lady. Our culture promotes violence in all walks of life and causes so many avoidable complications in result. This issue should be addressed by the governmental authorities, working women must be given maternity leaves in all working departments, couple counselling and lady health care visits must be mandatory. Women must be given the right to seek help from law and police in case of severe violent domestic environment. Education must be prioritized in all regions of Pakistan for the betterment of mindset of our future generation.

Our study has a few limitations in that it is a secondary analysis of a nationally representative survey and the module of domestic violence was first time incorporated in it so the results estimated

do not exhibit the proper image of occurrence of domestic violence as women hesitate from such discussions in our culture. Secondly a secondary analysis does not forms a causal association between variable so a cohort study is more suitable design for this purpose. Thirdly other factors that could cause termination of pregnancy were also not incorporated.

**Supplementary Materials:** Data was collected from Pakistan Demographic and Health Survey and secondary analysis was performed.

**Author Contributions:** Conceptualization is by R.F. and M.S.; methodology, R.F.; software, M.S.; validation, R.F. and M.S.; formal analysis, H.H.; investigation, N.R.; resources, H.H.; data curation, N.R.; writing—original draft preparation, R.F.; writing—review and editing, H.H.; visualization, R.F.; supervision, R.F.; project management, N.R. All authors have read and agreed to the published version of the manuscript.

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**Institutional Review Board Statement:** Ethical review and approval were forfeited for this study, because we have done secondary analysis of publicly available data which is available at [www.dhsprogram.com](http://www.dhsprogram.com). However study has followed all the ethical guidelines.

**Informed Consent Statement:** Patient consent was waived due to secondary analysis of publicly available data.

**Data Availability Statement:** Data supporting the results can be found at [www.dhsprogram.com](http://www.dhsprogram.com). We used data regarding variables of this study from the report of Pakistan Demographic and Health Survey 2018.

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