

Frequency of Preterm Birth in Females Presenting with History of Domestic Violence

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ABSTRACT

Objective: To find frequency of preterm birth in females presenting with history of domestic violence.

Patients and Methods: This cross sectional study was done at Basic Health Unit, Sakhana Bajwa, District Gujranwala. Total 150 cases were included in the study having mean age of 20-40 years with single pregnancy or of any parity with current pregnancy of gestational age >24 weeks experiencing domestic violence. Domestic violence was defined as physical violence such as beating or hurting or sexual violence. All females were followed in OPD till delivery. During follow-up, ultrasound was performed to check fetal health. Preterm delivery was defined as delivery occurring before completion of 37 weeks.

Results: The mean age of females in this study was 33.32±6.42 years (range = 23 - 50 years). The mean gestational age was 37.65 ± 4.3 week with minimum and maximum gestational age was 32 weeks and 41 weeks. Preterm birth was seen in 20(13.33%) cases, while 130(86.67%) females had full term birth.

Conclusion: The current study shows high frequency of preterm birth in females experiencing domestic violence. Most of the females and their husbands were less educated, belonged to lower social class and had parity < 2.

Key words: Intimate partner violence, trauma, psychological stress, birth outcome, preterm birth.

Author's Contribution

¹ Conception, synthesis, planning of research and manuscript writing Interpretation and discussion

² Data analysis, interpretation and manuscript writing, ³ Active participation in data collection.

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Introduction

Domestic violence in Pakistan is an endemic social problem. According to a study carried out in 2009 by Human Rights Watch, it is estimated that 70 - 90 % of women in Pakistan have suffered from some form of abuse.¹ Over the last few years, domestic violence is on a rise in Pakistan in numbers and extent. A little percentage is being reported in the media. In addition to physical violence which is the most vulnerable and obvious form, the emotional and psychological abuse through which a woman passes is also included in domestic violence.² It is noted in this report that women were more than twice as likely as men being beaten (25% versus 10%), five times

were more likely to be choked (20% versus 4%) and almost twice likely to report being threatened by, and having a gun or knife used against them (13% versus 7%).³ Recently it has been reported that the prevalence of reported cases of violence against women in Pakistan has increased by 7% as compared to the year 2011. Among total number of VAW incidents, 3,153 cases were reported in Punjab, 1,027 in Sindh, 283 in Khyber-Pakhtunkhwa and 78 cases were reported in Baluchistan.⁴ Domestic violence against women during pregnancy affects many women and unborn infants worldwide. Pregnancy presents a window of opportunity

for health care providers to identify domestic violence and provide appropriate intervention.⁵ One study has showed that in females with domestic violence, the frequency of preterm delivery was 3.65%.⁶ Another study has showed that preterm delivery was 6.6% with domestic violence.⁷ The current study was designed to find frequency of preterm birth with history of domestic violence. Little is known about the extent of problems during pregnancy associated with domestic violence during pregnancy. So this study was conducted to confirm the effect of domestic violence on pregnancy outcome.

Patients and Methods

This cross sectional study was conducted at Basic Health Unit, Sakhana Bajwa, Gujranwala. Duration of study was 6 months. Calculated sample size was 150 cases. It was computed by using the 3.65% frequency of preterm delivery in females with history of domestic violence, 95% confidence level and 5% margin of error.⁶ Non probability, consecutive sampling technique was used. Our inclusion criteria was married females of age 20-40 years with singleton pregnancy, of any parity with current pregnancy of gestational age >24 weeks experiencing domestic violence. Females with language barrier, those who refused to be interviewed, with high risk pregnancy i.e. Pregnancy induced hypertension (PIH) (BP>140/90mmHg), pre-eclampsia (PIH with proteinuria +1 on dipstick) or eclampsia (PIH with or without protein urea), gestational diabetes (OGTT>7mmol/l) or with cardiac problem (abnormal ECG and medical record) were excluded from study. Informed consent was taken. Demographic profile (name, age, parity, gestational age) was noted. Domestic violence was defined as physical violence as beating or hurting or sexual violence. All females were followed-up in OPD till delivery. During follow-up, ultrasound was performed to check fetal health. Preterm delivery was defined as delivery occurring before completion of 37 weeks. All the information was recorded on a prescribed proforma. Collected data was entered and analyzed statistically by using SPSS version 20. Quantitative variables like age and gestational age were presented in the form of mean \pm S.D. Qualitative variables like parity, preterm delivery and intrauterine death were calculated in the form of frequency and percentage. Group was compared by using chi-square

test. p-value<0.05 was considered as statistically significant.

Results

The mean age of pregnant females in this study was 29.35 \pm 3.42 years with minimum and maximum ages of 23 and 50 years respectively. Mean age of husbands in this study was 32.75 \pm 2.15 years with minimum and maximum ages of 27 and 50 years respectively. The mean age of wives at the time of marriage was 21.36 \pm 1.45 years with minimum and maximum ages of 18 and 45 years respectively. Mean age of husbands at the time of marriage was 24.67 \pm 5.64 years with minimum and maximum ages of 21 and 40 years respectively (Table 1). There were 110 (73.3%) females who had parity < 2 and 40 (26.66%) females had a parity of \geq 2. The mean education of wives was 10.21 \pm 1.76 years and of husbands was 11.85 \pm 1.48 years. The minimum and maximum education among wives was reported to be 0 years and 16 years and among husbands was 5 years and 18 years respectively. The preterm mean gestational age was 37.65 \pm 4.3 week with minimum and maximum gestational age as 32 weeks and 41 weeks. The frequency of preterm birth was seen as 13.33%, while 86.67% females had full term birth (Figure 1).

Table-1: Descriptive characteristics of participants (n=150)

Variables	Mean	SD
Age of Females (years)	29.35	3.42
Age of Husband (years)	32.75	2.15
Age of female at marriage (years)	21.36	1.45
Age of husband at marriage (years)	24.67	5.64
Weight of wife (kg)	56.79	4.75
Weight of husband (kg)	74.33	10.56
Height of wife (feet)	5.32	0.19
Height of husband (feet)	5.89	3.31
Education of wife (years)	10.21	1.76
Education of Husband (years)	11.85	1.48
Gestational age (months)	37.65	4.3

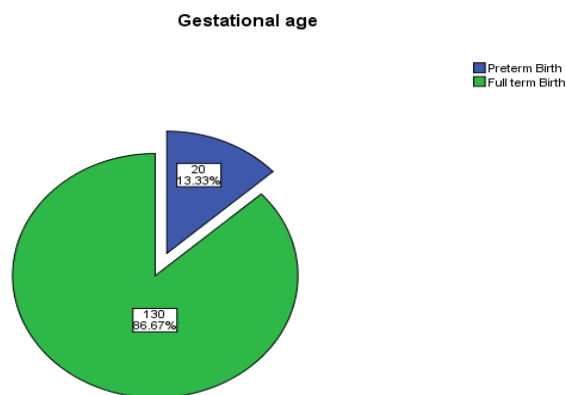


Figure 1: Frequency of preterm birth

Discussion

Domestic violence (DV) against women is a significant public health issue in both developed and developing countries of the world.⁸⁻¹⁰ According to the World Health Organization (WHO), surveys from around the world indicate that approximately 10%–69% of the women report being physically assaulted by an intimate male partner at some point in their lives.¹¹ DV occurs globally, irrespective of class, creed, religion and country¹². It is an increasing and important community health problem that can be seen in any area of human life.¹³ In a study of domestic violence perpetrated by men in Pakistan, all reported 'ever shouting or yelling' at their wives, 32.8% and 77% reported having slapped and engaging in nonconsensual sex with their wives, respectively¹⁴. The prevalence of abuse during pregnancy in various countries has been reported to range from 5-50%.¹⁵ In 2008, Karachi, Pakistan, a study of 500 women who delivered at a hospital reported that 43% reported verbal abuse and 13% reported physical abuse during their pregnancy¹⁶. In another study from Karachi, of 300 women who gave birth in a large public maternity hospital, 25% reported some form of physical abuse during a previous pregnancy¹⁷. Domestic violence during pregnancy is associated with adverse pregnancy outcomes such in which preterm delivery is at top¹⁸. According to current study the frequency of preterm birth was seen as 20(13.33%) while 130(86.67%) females had full term birth. A study reported that women who experienced moderate or severe violence had incidences of preterm birth of 15.4% and 17.2%, respectively¹⁹ One study has showed that in females with domestic violence, the frequency of preterm delivery was 3.65%.⁶ One more

study has shown that preterm delivery was 6.6% with domestic violence.⁷

According to a study, violence is associated with preterm birth with high and significant risk of 3.14²⁰. Another study showed, that psychological abuse (OR 3.9; 95 % CI 1.19–12.82) and mild or greater depressive symptoms (OR 3.3; 95 % CI 0.99–11.17) were significantly associated with increased risk of preterm birth. Physical abuse was also associated with increased risk of preterm birth, but this was not statistically significant (OR 1.9; 95 % CI 0.59–6.19). In each of the above adjusted models, low maternal education was associated with increased risk of preterm birth, in the analysis with depressive symptoms OR 0.18, CI 0.04–0.86 and in the analyses with psychological abuse OR 0.19, CI 0.04–0.91.²¹

Conclusion

The current study shows high frequency of preterm birth in female's who experienced domestic violence. Most of the females and their husbands were less educated, belonged to lower social class and had parity < 2.

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