



## FETOMATERNAL OUTCOME AFTER PHYSICAL DOMESTIC VIOLENCE DURING PREGNANCY.

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## INTRODUCTION

Domestic violence in course of pregnancy is a serious public health problem which threatens fetal & maternal health outcomes.<sup>1,2</sup>

Domestic violent behavior is described as per WHO as psychological /emotional, bodily, or sexual violent behavior, or threats of bodily or sexual violent behavior that are inflicted on a female via a relative, an intimate male companion, marital/cohabiting companion, parents, siblings, or a person much well known within family or from a former companion when such violent behavior frequently takes place in home.<sup>3</sup>

Incidence of domestic violent behavior against pregnant females varies widely in literature, varying from 1.2 to 66%.<sup>4</sup>

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**ABSTRACT:** Pregnancy by itself imposes great physical and psychological pressures on a woman and consequently, coupled with other stressors such as violence, can have adverse effects on the fetus and mother. **Objectives:** To identify the association of physical domestic violence with unfavorable fetal maternal outcome. **Study Design:** Observational Cross Sectional Review. **Setting:** Department of Obstetrics and Gynaecology Unit 4 at Liaquat University Hospital Hyderabad. **Period:** Six months from June 2017 to December 2017. **Material & Methods:** All pregnant females admitted in department of OBS and Gynae for various obstetrical and gynaecological problems because of bodily domestic violence. **Results:** Overall 196 pregnant females were selected in review, mean age was 26.32±4.36 yrs. On assessment of maternal outcome females were presented as; preterm labor in 34.2% females, Antepartum hemorrhage in 25.5%. On fetal outcome Miscarriage in 31.1%, intrauterine mortality (IUD) in 15.3%, Stimulated miscarriage in 12.8%, intrauterine growth retardation (IUGR) in 12.8%, Neonatal mortality (NND) in 9.2% & Neonatal intensive care unit (NICU) admission was seen in 18.9% cases. It was found that the age, socio-economic status, maternal education, occupational status, education of husband, addiction of husband, parity, physical and psychological forms of violence, marriage duration, were significantly associated with maternal and fetal outcome (p value < 0.05) due to bodily domestic violent behavior. **Conclusion:** We concluded that domestic violence during the course of pregnancy has been identified as being a significant factor affecting health of mother and fetus.

**Key words:** Bodily Domestic Violence, Fetal Outcome, Maternal Outcome.

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Incidence of bodily IPV in pregnancy, amid range of 1% within Japan city to 28% within Peru Province, with Most of sites varying amid 4% & 12%.<sup>5</sup>

This finding was encouraged via an analysis of demographic & Health Surveys and International Violent behavior against Females Survey, which established incidence rates for IPV in course of pregnancy amid 2% within Australia, Denmark, Cambodia and Philippines to 13.5% within Uganda, with majority varying amid 4% & 9%.<sup>6</sup>

Clinical reviews around world, which tend to yield greater incidence rates though frequently are only sources of data available, established greatest incidence in Egypt with 32%, after that India (28%), Saudi Arabia (21%) and Mexico (11%).<sup>7</sup>

A fresh review of clinical reviews from Africa recounts incidence rates of 23–40% for bodily, 3–27% for sexual and 25–49% for emotional IPV in course of pregnancy.<sup>8</sup>

Bodily, sexual and psychological IPV in course of pregnancy are associated with greater levels of depressions, nervousness and stress, as well as suicide attempts, lack of attachment to child and lower rates of breastfeeding.<sup>9</sup>

In Pakistan via HR recounted that 70 to 90% married females struggling with various forms of violent behavior.<sup>10</sup>

In review of Faryal Fikree et al exhibited 44% of females are influenced via life time marital bodily abuses within a cross sectional survey carried out at tertiary referral centers at Karachi.<sup>12</sup>

As per one further survey in Islamabad & Rawalpindi, 97% patients stated that they had been suffering from some forms of violent behavior from vocal abuses to non-consensual sex or bodily assaults.<sup>11</sup>

Bodily in-home violent behavior is an unseen reproductive health problem, claimed to be taken into account. Research project can possibly help to produce confirmation with reference to correlation of bodily domestic violent behavior in course of pregnancy with feto-maternal outcome. This can possibly produce knowledge in health professions with reference to hidden health problem of domestic violent behavior in our society and its unfavorable outcome.

## MATERIAL AND METHODS

### Study Area

All pregnant women who were admitted in wards of Obstetrics and gynaecology unit 4 and attended antenatal care services at Liaquat University Hospital Hyderabad Sindh for the period of six months from June 2017 to December 2017.

It is one of the biggest tertiary level referral and teaching hospitals in Hyderabad Sindh and promotive, preventive and curative services in the

catchment area. The antenatal care clinic is one of the departments which provide services to 50–70 pregnant women coming from rural, town and nearby districts of Sindh Province of Pakistan. The hospital also serves as a research center and provides practical training to medicine and health science students.

### Study Population

All pregnant women who attended antenatal care services and Department of Obstetrics and gynaecology unit 4 at Liaquat University Hospital Hyderabad were source population. All those pregnant females aged 20 to 40 years admitted in department of OBS and Gynae for various obstetrical and gynaecological problems because of bodily domestic violent behavior were included in the study while unmarried and non-pregnant females, and who were not will to participate were excluded from the study.

### Sample Size Determination and Sampling Procedures

To determine the sample size, we used the single population proportion formula and the assumption that the percentage of pregnant women facing domestic violence was 34%, 95% confidence interval (CI), 4% margin of error, and non-response rate of 10%. Thus, the total sample was 196 pregnant women. A systematic random sampling technique was used to select study participants.

### Data Collection Procedure

This study was performed after permission of ethical committee of LUMHS Jamshoro. Participants were recruited from department of gynaecology and Obstetrics of Liaquat medical University Hospital Hyderabad. Married females who were attending hospital for various obstetrical or gynecological problems. An informed written consent was taken before selection of participants. Entire study participants were interviewed face to face via investigator and her team members in a separate room and required data was collected. All data together with demographic details such as age, education, socioeconomic status, occupational status, parity, husband's education, type of violence (physical, psychological, all

forms), number of previous pregnancies, risk factors and its impacts on fetal & maternal health was recorded on well structured proforma.

### Data Analysis

Data was analyzed on SPSS program version IBM 25. Mean and standard deviation were calculated for quantitative variables like age, Simple frequencies and percentages were carried out for all categorical variables like parity, educational status together with socioeconomic status and fetomaternal outcome.

Chi square test was applied to assess correlation of bodily domestic violent behavior with fetomaternal outcome. P value of <0.05 was considered as a significant level.

## RESULTS

Total 196 pregnant females were selected in this study, the mean age  $\pm$  SD (range) was  $26.32 \pm 4.36$  (20 to 40) years, with range of minimum 20 years and maximum 40 years.

### Demographic and Baseline Characteristics

Most of the pregnant women 71(36.2%) were found in the age group 30 to 34 years.

In our study, most of females 90(45.9%) belonged to low socio economical class with monthly income as (<6000 PRK/month), following via middle class females were 68(34.7%) and 38(19.4%) females were with high socioeconomic class with monthly income as (<15000 PRK/month) and (>15000 PRK/month) respectively. Overall, the number of housewives who had suffered violence was greater.

Most of the women 108(55.1%) were housewives and 88(44.9%) were worker. Table-I

In our study the education level of women was generally low. Uneducated females were 108 (55.1%), remaining 88(44.9%) were educated which were categorized as per level of education as; primary, metric, intermediate and graduate with percentage of 65(33.2%), 6(3.1%), 11(5.6%) & 6(3.1%) respectively. Table-I

Out of 196 pregnant women, 86(43.9%) of women's partners were uneducated and remaining 110 (56.1%) women's husbands received education at primary 32(16.3%), metric 34(17.3%), 32(16.3%) intermediate and 12 (6.1%) graduation level respectively. Table-I

Out of 196 pregnant women, most of the pregnant women 177(90.3%) had duration of marriage more than 6 y ears and 19(9.7%) women had duration of marriage < 6 years. One hundred and thirteen (57.7%) of respondent became pregnant three or more times while rest 83(42.3%) women got pregnancy one or two times. Table-I

In this study, 134(68.4%) women were primigravidas and 62 (31.6%) were multigravidas. We noticed that 78(39.8%) of women experienced commonly all form of partner violence during pregnancy. Psychological violence was observed in 70 (35.7%) followed by physical 48(24.5%). From physical violence slapping 32(66.7%) was the commonest form of violence, physically forced to have sexual intercourse was 6 (12.5%) and insulting 10(20.8%) were commonest form of sexual and emotional violence respectively.

Most women 49(25.0%) said that their husbands have any drug or alcohol addiction. Table-I

### Maternal Outcome

In this study, all females were selected after confirmation of domestic violent behavior, and on assessment of maternal outcome females were as; preterm labor in 67(34.2%) females, Antepartum hemorrhage in 50(25.5%), Fits in 36(18.4%) and Hypertension was seen in 43(21.9%) females. Figure-1

In our study, we found significant association between socio-economic status and maternal outcome like Hypertension (p value = 0.004), Fits (p value = 0.002), antepartum hemorrhage (p value = 0.006).

There was significant association between maternal education and maternal outcome like Hypertension (p value = 0.002). However, there was also significant association between maternal

age and Fits (p value = <0.0001), antepartum hemorrhage (p value = <0.0001).

In addition, we also found that there was significant association between occupational status and maternal outcome like Hypertension (p value = 0.001), Fits (p value = 0.026). While there was significant association between husband’s education and maternal outcome like Fits (p value = 0.003), antepartum hemorrhage (p value = 0.0001) and pre-term labour (p value = 0.054). We also determined significant association between all forms of violence and maternal outcome like Hypertension (p value = 0.004), fits (p value = 0.015). Table-II

**Fetal Outcome**

In this study, fetal outcome was assessed from as; Miscarriage was seen in 61(31.1%) women, Intrauterine mortality (IUD) in 30(15.3%), stimulated miscarriage in 25(12.8%), intrauterine growth retardation (IUGR) in 25(12.8%), Neonatal mortality (NND) in 18(9.2%) & Neonatal intensive care unit (NICU) admission was seen in 37(18.9%) women. Figure-2

In our study, we found no significant association of socio-economic status, maternal education, and occupation status of pregnant women, parity, and duration of marriage with fetal outcome.

However, there was significant association between maternal age and stimulated abortion (p value = 0.054), IUGR (p value = 0.054), IUD

(p value = 0.021), NND (p value = 0.011), NICU (p value = 0.001). While there was significant association between physical violence and fetal outcome such as miscarriage (p value = 0.023).

We also determined significant association between all forms of violence and maternal outcome like Hypertension (p value = 0.004), Fits (p value = 0.015). Table-III

Based on the findings of this study, it was shown that the age, socio-economic status, maternal education, occupational status, education of husband, addiction of husband, parity, physical and psychological forms of violence, marriage duration, were significantly associated with maternal and fetal outcome due to bodily domestic violent behavior.

We observed that physical violence has direct adverse effect on fetus and maternal health.

\*P value is statically significant calculated by chi-square test

- IUGR = Intrauterine growth retardation
- IUD = Intrauterine mortality
- NND = Neonatal mortality
- NICU = Neonatal intensive care unit
- IPV = Intimate partner violence

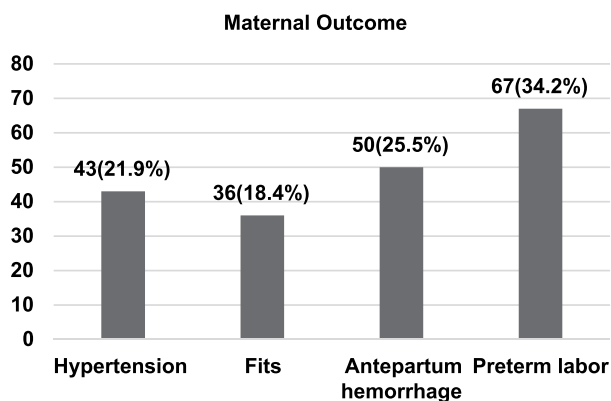


Figure-1. Frequency of maternal outcome (n = 196)

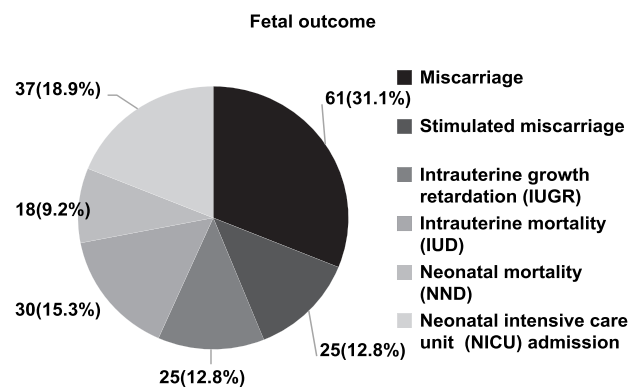


Figure-2. Frequency of fetal outcome (n = 196)

Variables	Frequency	Percent
<b>Age in Groups:</b>		
20-24	64	32.7%
25-29	37	18.9%
30-34	71	36.2%
35-40	24	12.2%
Mean age $\pm$ Standard Deviation (Range)	26.32 $\pm$ 4.36 (20 to 35 years)	
<b>Socio Economic Status</b>		
Low class	68	34.7%
Middle class	90	45.9%
High class	38	19.4%
<b>Occupational Status</b>		
Housewife	108	55.1%
Worker	88	44.9%
<b>Maternal Education</b>		
Uneducated	108	55.1%
Primary	65	33.2%
Metric	6	3.1%
Intermediate	11	5.6%
Graduate	6	3.1%
<b>Husband's Education</b>		
Uneducated	86	43.9%
Primary	32	16.3%
Metric	34	17.3%
Intermediate	32	16.3%
Graduate	12	6.1%
<b>Duration of Marriage</b>		
< 6 years	19	9.7%
> 6 years	177	90.3%
<b>Number of Pregnancies</b>		
One or two	83	42.3%
More than two	113	57.7%
<b>Parity</b>		
Primigravida	134	68.4%
Multigravida	62	31.6%
<b>Type of Violence</b>		
All forms	78	39.8%
Physical	48	24.5%
• Pushing	06	12.5%, n = 48
• Hitting	10	20.8%, n = 48
• Slapping	32	66.7% n = 48
Psychological	70	35.7%
<b>Risk Factors</b>		
Addiction	49	25.0%
Aggressive nature	39	19.9%
Unemployment	78	39.8%
Another women	20	10.2%
Involvement of in-laws	10	5.1%

Table-I. Baseline characteristics of pregnant women (n = 196)

Variables	Maternal Outcome				Total
	Hypertension n = 43	Fits n = 36	Antepartum hemorrhage n = 50	Preterm labor n = 67	
<b>Socio Economic Status</b>					
Low class	21(48.8%)	10(27.8%)	21(42.0%)	28(41.8%)	80(40.8%)
Middle class	17(39.5%)	25(69.4%)	27(54.0%)	29(43.3%)	98(50.0%)
High class	5(11.6%)	1(2.8%)	2(0.0%)	10(14.9%)	18(9.2%)
<b>P value</b>	<b>0.004*</b>	<b>0.002*</b>	<b>0.006*</b>	<b>0.262</b>	
<b>Maternal education</b>					
Uneducated	24(55.81%)	18(50.0%)	31(62.0%)	18(28.9%)	91(46.4%)
Primary	13(30.2%)	0(0.0%)	6(12.0%)	37(55.2%)	56(28.6%)
Metric	0(0.0%)	12(33.3%)	6(12.0%)	0(0.0%)	18(9.2%)
Intermediate	6(13.9%)	6(16.7%)	0(0.0%)	12(17.9%)	24(12.2%)
Graduate	0(0.0%)	0(0.0%)	7(14.0%)	0(0.0%)	7(3.6%)
<b>P value</b>	<b>0.002*</b>	<b>0.095</b>	<b>0.061</b>	<b>0.424</b>	
<b>Age in groups</b>					
18-24	17(39.5%)	23(63.9%)	29(58.0%)	21(31.3%)	90(45.9%)
25-29	11(25.5%)	02(5.6%)	2(4.0%)	13(19.4%)	28(14.3%)
30-34	15(34.8%)	11(30.6%)	19(38.0%)	29(43.3%)	74(37.8%)
35-40	0(0.0%)	0(0.0%)	0(0.0%)	4(6.0%)	4(2.0%)
<b>P value</b>	<b>0.202</b>	<b>&lt;0.0001*</b>	<b>&lt;0.0001*</b>	<b>0.192</b>	
<b>Occupational status</b>					
Housewife	34(79.0%)	26(72.2%)	32(64.0%)	37(55.2%)	129(65.8%)
Worker	9(20.9%)	10(27.8%)	18(36.0%)	30(44.8%)	67(34.2%)
<b>P value</b>	<b>0.001*</b>	<b>0.026*</b>	<b>0.187</b>	<b>0.98</b>	
<b>Husband's education</b>					
Uneducated	21(48.8%)	16(44.4%)	18(36.0%)	36(53.7%)	91(46.4%)
Primary	12(27.9%)	10(27.8%)	9(18.0%)	10(14.9%)	41(20.9%)
Metric	7(16.2%)	10(27.8%)	18(36.0%)	5(7.5%)	40(20.4%)
Intermediate	2(4.6%)	0(0.0%)	5(10.0%)	13(19.4%)	20(10.2%)
Graduate	1(2.3%)	0(0.0%)	0(0.0%)	3(4.5%)	4(2.0%)
<b>P value</b>	<b>0.024*</b>	<b>0.003*</b>	<b>&lt;0.0001*</b>	<b>0.054*</b>	
*P value is statically significant calculated by chi-square test					
<b>Continued</b>					

Variables	Maternal Outcome				Total
	Hypertension n = 43	Fits n = 36	Antepartum hemorrhage n = 50	Preterm labor n = 67	
<b>Parity</b>					
Primigravida	38(88.3%)	33(91.7%)	32(64.0%)	49(73.1%)	152(77.6%)
Multigravida	5(11.6%)	3(8.3%)	18(36.0%)	18(26.9%)	44(22.4%)
<b>P value</b>	<b>0.001*</b>	<b>0.001*</b>	<b>0.483</b>	<b>0.334</b>	
<b>Number of pregnancies</b>					
One or two	21(48.8%)	16(44.4%)	18(36.0%)	35(52.2%)	90(45.9%)
More than two	22(51.1%)	20(55.6%)	32(64.0%)	32(47.8%)	106(54.1%)
<b>P value</b>	<b>0.826</b>	<b>0.853</b>	<b>0.323</b>	<b>0.043*</b>	
<b>Type of violence</b>					
All forms	20(46.5%)	16(44.4%)	18(36.0%)	33(49.3%)	87(44.4%)
Physical	16(37.2%)	14(38.9%)	10(20.0%)	15(22.4%)	55(28.1%)
Psychological	7(16.2%)	6(16.7%)	22(44.0%)	19(28.4%)	54(27.6%)
<b>P value</b>	<b>0.004*</b>	<b>0.015*</b>	<b>0.352</b>	<b>0.134</b>	
<b>Risk factors</b>					
Addiction	18(41.8%)	16(44.4%)	18(36.0%)	20(29.9%)	72(36.7%)
Aggressive nature	7(16.2%)	3(8.3%)	2(4.0%)	19(28.4%)	31(15.8%)
Unemployment	13(30.2%)	12(33.3%)	24(48.0%)	21(31.3%)	70(35.7%)
Another women	4(9.3%)	4(11.1%)	5(10.0%)	4(6.0%)	17(8.7%)
Involvement of in-laws	1(2.3%)	1(2.8%)	1(2.0%)	3(4.5%)	6(3.1%)
<b>P value</b>	<b>0.109</b>	<b>0.031*</b>	<b>0.007*</b>	<b>0.081</b>	
<b>Duration of marriage</b>					
< 6 years	10(23.2%)	6(16.7%)	6(12.0%)	9(13.4%)	31(15.8%)
> 6 years	33(76.7%)	30(83.3%)	44(88.0%)	58(86.6%)	165(84.2%)
<b>P value</b>	<b>0.016*</b>	<b>0.126</b>	<b>0.581</b>	<b>0.212</b>	

Table-II. Association between pregnancy maternal outcomes and domestic violent behavior during pregnancy (n = 196) \*P value is statically significant calculated by chi-square test

Variables	Fetal Outcome						Total
	Mis- carriage n = 61	Stimulated Abortion n = 25	IUGR n = 25	IUD n = 30	NND n = 18	NICU Admission n = 37	
<b>Age in groups</b>							
18-24	20(32.8%)	13(52.0%)	13(52.0%)	15(50.0%)	11(61.1%)	21(56.8%)	93(47.4%)
25-29	11(18.0%)	3(12.0%)	3(12.0%)	5(16.7%)	0(.0%)	2(5.4%)	24(12.2%)
30-34	26(42.6%)	9(36.0%)	9(36.0%)	9(30.0%)	7(38.9%)	13(35.1%)	73(37.2%)
35-40	4(6.6%)	0(.0%)	0(.0%)	1(3.3%)	0(.0%)	1(2.7%)	6(3.1%)
<b>P value</b>	<b>0.337</b>	<b>0.054</b>	<b>0.054*</b>	<b>0.021*</b>	<b>0.011*</b>	<b>0.001*</b>	
<b>Socio Economic Status</b>							
Low class	25(41.0%)	9(36.0%)	9(36.0%)	9(30.0%)	7(38.9%)	12(32.4%)	71(36.2%)
Middle class	26(42.6%)	13(52.0%)	13(52.0%)	17(56.7%)	9(50.0%)	21(56.8%)	99(50.5%)
High class	10(16.4%)	3(12.0%)	3(12.0%)	4(13.3%)	2(11.1%)	4(10.8%)	26(13.3%)
<b>P value</b>	<b>0.443</b>	<b>0.591</b>	<b>0.591</b>	<b>0.409</b>	<b>0.646</b>	<b>0.227</b>	
<b>Maternal education</b>							
Uneducated	34(55.7%)	16(64.0%)	16(64.0%)	20(66.7%)	11(61.1%)	23(62.2%)	120(61.2%)
Primary	23(37.7%)	9(36.0%)	9(36.0%)	9(30.0%)	7(38.9%)	13(35.1%)	70(35.7%)
Metric	1(1.6%)	0(.0%)	0(.0%)	1(3.3%)	0(.0%)	1(2.7%)	3(1.5%)
Intermediate	2(3.3%)	0(.0%)	0(.0%)	0(.0%)	0(.0%)	0(.0%)	2(1.0%)
Graduate	1(1.6%)	0(.0%)	0(.0%)	0(.0%)	0(.0%)	0(.0%)	1(0.5%)
<b>P value</b>	<b>0.629</b>	<b>0.428</b>	<b>0.428</b>	<b>0.400</b>	<b>0.618</b>	<b>0.350</b>	
<b>Occupational status</b>							
Housewife	34(55.7%)	16(64.0%)	16(64.0%)	20(66.7%)	11(61.1%)	23(62.2%)	34(17.3%)
Worker	27(44.3%)	9(36.0%)	9(36.0%)	10(33.3%)	7(38.9%)	14(37.8%)	27(13.8%)
<b>P value</b>	<b>0.904</b>	<b>0.338</b>	<b>0.338</b>	<b>0.166</b>	<b>0.91</b>	<b>0.338</b>	

Table-III. Association between fetal and neonatal outcomes and domestic violent behavior during pregnancy (n = 196)

## DISCUSSION

Domestic violent behavior is a social problem, hidden though predominant in nearly every society irrespective of socioeconomic condition and educational status. Abused young mothers have been established to be at considerably raised hazard of experiencing depressions, social isolation and homelessness all of which can possibly impact upon their mothering ability. Domestic violent behavior in context of young motherhood can possibly thus be particularly detrimental to health and wellbeing of young mothers and their children. Overall 196 pregnant females were selected in this study. Mean age was  $26.32 \pm 4.36$  years, with range of minimum 20 years and maximum 35 yrs. Similarly Seema Bibi et al.<sup>12</sup> recounted that respondents were majority younger than their mean age of  $29.87 \pm 8.7$  years. Chasweka R et al.<sup>13</sup> as well recounted that participants' ages ranged from 15 to 45 years with a mean age of 25.5 years. In our study, most of females 45.9% belongs to low socio economical class with monthly income as (<6000 PKR/month). Similarly in a review of Ribeiro MR et al.<sup>14</sup> recounted that pregnant females with low SEC suffered further bodily violent behavior, an effect that was fully indirect/negative and mediated via social encouragement from their society. In Hoque et al.<sup>15</sup> review it was observed that being unemployed was a hazard factor for experiencing assault, and so was belonging to a low socioeconomic class in reviews conducted via Ezechi et al.<sup>16</sup> and Umeora et al.<sup>17</sup>

In our review uneducated females were 46.4%, remaining 54.6% were educated which were categorized as per level of education as; primary, metric, intermediate and graduate with percentage of 28.6%, 9.2%, 12.2% & 3.6% respectively. Chasweka R et al.<sup>13</sup> recounted with reference to education level, over half (58.9%) and 56.8% of females and their companions attended school only up to primary school level respectively. Though, reviews via Khosla et al.<sup>18</sup> and Audi et al.<sup>19</sup> established a high incidence of domestic violent behavior in course of pregnancy in low-educated females.

In this review all females were selected after

confirmation of domestic violent behavior, and on assessment of maternal outcome females warranted as; preterm labor in 34.2% females, Antepartum hemorrhage in 25.5%, Fits in 18.4%, Hypertension in 21.9% females. In review of Zareen N et al.<sup>20</sup> recounted that there were 4 (4.87%) cases, who were forced to deliver at home, with 1 (1.12%) ended up in third degree perineal tear and 3 (3.65%) cases had obstructed labour and underwent emergency caesarean sections.

In this review fetal outcome was assessed from females those were under went domestic violent behavior as; Miscarriage in 31.1%, Intrauterine mortality (IUD) in 15.3%, Stimulated miscarriage in 12.8%, Intrauterine growth retardation (IUGR) in 12.8%, Neonatal mortality (NND) in 9.2% & Neonatal intensive care unit (NICU) admission was seen in 18.9% cases. Incidence of PTB and LBW in our review was 6.2% & 4.9%. In a review Hoang TN et al.<sup>21</sup> recounted that incidence of 9.6% PTB and 15.5% LBW have been recounted. Niemi and et al.<sup>22</sup> using last menstrual phase to measure PTB and LBW estimated 19.8% PTB and 9% LBW. Though, author as well explained that high incidence of PTB and LBM could reflect that females have difficulties in remembering exact date of last menstrual phase, which can possibly be subject to recall error with a tendency to overstate duration of pregnancy. Two cases (2.4%) of intrauterine mortality were observed in patients endangered to bodily violent behavior, while 4 (4.87%) cases of intrauterine mortality were observed in patients unexposed to violent behavior in review of Zareen N et al.<sup>20</sup> In current study, Neonatal mortality (NND) was 9.2%. Inconsistently some reviews established a positive correlation amid violent behavior and neonatal intensive care unit admission, while three further reviews didn't.<sup>16</sup> These discrepancies in consequences of various reviews had potentially occurred because of various review populations and small sample sizes.

In our study, 39.8% of women experienced commonly all form of partner violence during pregnancy. Psychological violence was observed in 70 (35.7%) followed by physical 48(24.5%).



From physical violence slapping 32(66.7%) was the commonest form of violence, physically forced to have sexual intercourse was 6 (12.5%) and hitting 10(20.8%) were commonest form of sexual and emotional violence respectively. The same observation was seen in the study of Nejatizade et al<sup>23</sup> who showed that 14.8% of sexual violence, 9.9% psychological violence, and 5.6% physical violence; these observations correlate well to this study. Similarly, study by Sara Gul from Peshawar Pakistan also showed that 35.7% of the respondents experienced physical violence during their current pregnancy. Verbal violence was most common and 51.9 % of the respondents experienced verbal violence. 20.40% were subjected to nonconsensual sex (sexual violence).<sup>24</sup>

The differences between frequencies and percentages of other literature in comparison to our results is because of different methodology, sampling and cultural differences and willingness of respondents to share domestic violence during pregnancy as part of their privacy.

Based on the results of this study, it was shown that the age, socio-economic status, maternal education, occupational status, education of husband, addiction of husband, parity, physical and psychological forms of violence, marriage duration, were significantly associated with maternal and fetal outcome due to bodily domestic violent behavior. In comparison to Nejatizade et al<sup>23</sup>, who revealed that addiction of husband, previous marriage, duration of marriage and age were found to be significantly associated with physical violence of the husband ( $p < 0.000$ ). He also showed that low birth weight and growth delay in the fetus were significantly caused by physical violence of husband ( $p = 0.033$ ).<sup>23</sup> However, same findings are also in agreement with Hoang et al<sup>1</sup> who reported that there was a statistically significant association between exposure to physical violence during pregnancy and preterm birth (PTB) or low birth weight (LBW). After adjustment for age, education, occupation, previous adverse pregnancy, addiction of husband, parity, physical and psychological forms of violence, marriage duration outcomes,

and the pregnant women who were exposed to physical violence during pregnancy were five times more likely to have PTB and were nearly six times more likely to give birth to a child of LBW.

Among pregnant women, low birth weight fetus and preterm labor are mainly caused by domestic violence of husband because they cannot take care themselves for prenatal care nutritional supplementation during pregnancy.

Preterm labor is the main reason of infants' morbidity and mortality and the main cause of undesirable consequences of pregnancy. It is very important that pregnant women should get screening against domestic violence.

## CONCLUSION

We concluded that domestic violent behavior in course of pregnancy has been identified as being a significant factor affecting health of mother and fetus, it can possibly described as a severe public health problem. Young mothers experiencing relation assault can possibly be prevented from disclosing assault and seeking help because of a fear of stereotypical and stigmatizing attitude. Fresh strategies should be developments to recognize these hazards and consequently routine questioning of pregnant females with reference to domestic violent behavior should be advocated."

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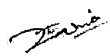




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### AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author(s) Full Name	Contribution to the paper	Author(s) Signature
1	Zakia Zaheen	Designed the research, assessed the vases, wrote the paper.	
2	Fahmida Aqeel	Collected the data, did the literature search, drafted the manuscript assisted in writing the paper.	
3	Mohammad Ghazi Asad	Involved in data collection, analyzed the data revised the manuscript.	
4	Geeta	Involved in data collection, Interpretation of discussion and data entry SPSS.	
5	Rozina Mujeeb Sahito	Revised the original manuscript, reviewed the cases.	
6	Rekha	Revised the original manuscript reviewed the cases, analyzed the data and assisted in writing the paper.	