

Intimate Partner Violence During Pregnancy And Its Adverse Outcomes

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Abstract: Violence against women by their intimate partners (IPV) during pregnancy may lead to negative pregnancy outcomes. We assess the impact of intimate partner violence during pregnancy and its adverse outcomes. **The Design:** Retrospective study implemented in 14 primary health care centers (PHCCs) in Madinah Al-Menawarh city, KSA for 4 months. **Methods:** A total number of four hundred and four pregnant women between the age of 15 and 35 years old were included in this study. A pre-constructed interviewing questionnaire and Woman Abuse Screening Tool (WAST) were used for the purpose of data collection. **Result:** The findings revealed that there was a highly statistically significant association between exposure to IPV and adverse outcomes. **Conclusion:** IPV should be recognized as a potential cause of abortion, preterm birth and bleeding. Counseling of women experiencing abuse should be provided.

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1.Introduction

Intimate partner violence (IPV) refers to behavior by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviors. The World Health Organization (WHO) multi-country study found that; between 15 and 71% of women aged 15- 49 years reported physical and/or sexual violence by an intimate partner at some point in their lives⁽¹⁾.

Intimate partner violence is a serious and widespread problem worldwide. Apart from being violations of human rights, they profoundly damage the physical, sexual, reproductive, emotional, mental and social well-being of individuals and families. The immediate and long-term health outcomes that have been linked to these types of violence include physical injury, unwanted pregnancy, abortion, gynecological complications, sexually transmitted infections (including HIV/AIDS), posttraumatic stress disorder and depression. There are also a number of pregnancy-related complications such as miscarriage, premature labor and low birth weight associated with violence during pregnancy⁽²⁻⁴⁾.

Pregnant women who experience domestic violence (DV) are at increased risk of adverse outcomes in addition to the risks to themselves.

Inadequate prenatal care, higher incidences of high-risk behaviors, direct physical trauma, and stress are postulated mechanisms⁽⁵⁾.

Abuse during pregnancy along with demographics that can't be changed is a real health problem and considered as a silent disease, and if pregnant women are not assessed for abuse, mental illness and poor obstetrical outcomes will continue to be undetected and untreated⁽⁶⁾.

Population-based surveys have shown that the lifetime prevalence of physical abuse by an intimate partner ranges from 10% to 69% in different countries and settings⁽⁷⁾. Prevalence rates of partner violence determined from police records or studies in hospital emergency departments or other health care settings vary from those conducted in community-based surveys. However, they may underestimate the extent of the problem due to the social stigma attached to reporting violence against women^(8,9).

Pregnancy does not protect women from violence⁽¹⁰⁾. This is reflected by the alarming prevalence rates of physical abuse found in the pre-pregnancy, ante partum, and postpartum periods, demonstrating that all women of reproductive age are at risk for IPV^(10,11). A recent study reported that, the prevalence of IPV in the pre-pregnancy period reaches 23%- 25% but increases to 52% during pregnancy⁽¹²⁾.

Another studies conducted in developing nations reported that, between 4% and 29% of all women are abused during pregnancy^(13,14).

There is little information about the incidence, prevalence and pattern of DV against pregnant women in Saudi Arabia⁽¹⁵⁾. Clinical studies around the world, which tend to yield higher prevalence rates of DV among all women but not pregnant, revealed that, the highest prevalence was in Egypt with 32%, followed by India (28%), Saudi Arabia (21%) and Mexico (11%)⁽¹⁶⁾.

Nurses can do a great deal to prevent physical abuse because it is not exaggeration to state that there are battered women in every prenatal clinic. Unfortunately, few women identify themselves and many remain unrecognized. So, it is recommended that all women be screened for physical abuse and counseled in order to introduce aspects that increase their control over the situation⁽⁶⁾. In this respect we aimed in this study to assess the impact of physical, emotional and sexual violence on women by their intimate partner during pregnancy and its adverse outcomes.

2.Methods:

A cross-sectional study was conducted on pregnant Saudi women who attended primary health care centers (PHCCs) in Madinah Al-Menawarh city from 10 October 2012 to 12 February 2013.

There are 32 PHCCs in Madinah Al-Menawarh city; 5 centers were selected randomly for the pilot study. Out of the remaining 27 centers, 9 were chosen to conduct this study by simple random selection. Each selected PHCC was visited twice a week during daytime hours. Data for the study was obtained by interviewing the participants. Information on physical abuse was collected according to the ethical and safety recommendations for research on domestic violence against women^(17,18). All pregnant women of Saudi Arabian nationality who visited the PHCCs during the period of data collection were considered for the sample. They were approached by the researchers and asked to participate in a study on women's health. The majority of them refused because they were either too ill on that day, had immediate family concerns or did not wish to be involved in the study. However, for safety reasons (as per the World Health Organization recommendations for research on violence)⁽¹⁷⁾, if more than 1 woman of the same family attended the health center on the same day, only 1 of them was selected.

The 416 women who agreed to participate were informed about the objective of the research in a private room in the center for privacy reasons. Verbal informed consent was obtained from each participant. All these women responded to the questionnaire in the initial stages of the interview. However, 12 women (3.4%) refused to continue when sensitive questions

related to the topic came up. The final sample size was therefore 404 women.

The present study adopted the criteria of physical or emotional wife abuse in accordance with the doctrines of Islamic law. The names of the women were not recorded on the questionnaire and they were assured of confidentiality of information. The interview was conducted in a caring and sympathetic manner to develop rapport, maximize disclosure of violence and minimize distress to victims of abuse. For participants who became emotionally upset during the interview, time was given to recover their composure and efforts were made to handle them in a sensitive and supportive way.

Study tool

Two Tools were used for data collection. **The first tool: an interview schedule** designed by the researchers and consists of three parts as follow:

Part I:

Comprised a range of variables concerning the socio demographic data from the respondents and their husbands such as age, age at marriage, marital status, level of education, occupation, family income and crowding index.

Part II:

Includes questions on all dimensions of partner violence (emotional, physical and sexual). Physical violence includes: slapping, beating the abdomen during pregnancy, kicking, pulling hair, beating and hitting that leads to injury). Emotional violence includes: quarrel, abandonment, insulting, locking inside the house, preventing from work, extorting money, preventing from eating, sarcasm, threatening of divorce or deprivation from children, humiliating, criticizing in front of others, controlling finances, jealous, discouraging from visiting the family). Sexual abuse includes: forcing into sexual practice, physical abuse during intercourse, unwanted sexual comment, Ridicule sexual comment, forcing into unwanted sexual practice).

Part III:

Entailed questions related to the adverse pregnancy outcome as a result of husband violence such as: abortion, preterm labor, and bleeding in the second or third trimester.

The second tool:

Woman Abuse Screening Tool (WAST)⁽¹⁹⁾.

It is an 8-item, self-administered abuse screening tool. Respondents were asked to respond to rate frequency of various feelings and experiences on a scale from 1-3. of 1 ("a lot of tension", "great difficulty", or "often"), 2 ("some tension", "some difficulty", or "sometimes"), 3 ("no tension", "no difficulty", or "never").

Pilot study

A pilot study was conducted to assess the administrative and procedural logistics, the response rate, the clarity, reliability and applicability of the tool and logical sequence of questions and the time required for data collection. It was carried out in 2 PHCCs on 20 pregnant women who were excluded from the study. Data of the pilot study were not included in the main study. Responses of the women showed that all questions were clearly understood and were logically sequenced.

Statistical analysis

Statistical presentation and analysis of the present study was conducted, using the mean, standard deviation, Chi-square, ANOVA test and multiple regression were conducted with SPSS software version 18. The scoring of WAST was as the following: 1 (“a lot of tension”, “great difficulty”, or “often”), 2 (“some tension”, “some difficulty”, or

“sometimes”), 3 (“no tension”, “no difficulty”, or “never”). Mean Score of WAST was used in relation with some participants variables.

3.Results:

Table (1) showed that the mean age of 404 participants was 31.188 ± 7.359 years. Among women who participated in the study, 84.65% were married. The majority of them (61.39%) were married at age between 15 to less than 25 years old, while their husbands (52%) were married at the age ranged from 25 to less than 35 years old. Overall, the study subjects were highly educated; 51.73% had completed their bachelor degree or higher. Almost two thirds (61.39%) had a family income less than 6000 SR. More than half (53.22%) the sample were identified as housewives and (6.19%) of their husbands were unemployed.

Table (1) Socio Demographic Characteristics of The Participants and Their Husbands (n=404)

Items	Women No (%)	Husbands No (%)
Age		
15 < 25	88 (21.78)	48 (11.88)
25 < 35	180 (44.55)	150 (37.13)
≥ 35	136 (33.66)	206 (51.0)
Mean ±SD	31.188±7.359	33.910±6.906
Marital status		
Married	342 (84.65)	
Widow	14 (3.47)	
Separated	48 (11.9)	
Age at marriage		
15 < 25	248 (61.39)	110(27.2)
25 < 35	123 (30.45)	210 (52.0)
≥ 35	33 (8.17)	84 (20.8)
Mean ±SD	24.678±6.429	29.356±6.908
Educational level		
Illiterate / Primary	75 (18.56)	60 (14.85)
Preparatory/ Secondary	120 (29.70)	126 (31.19)
Graduate / Postgraduate	209 (51.73)	218 (54.00)
Occupation		
Unemployed	215(53.22)	25 (6.19)
Worker	164 (40.59)	314 (77.72)
Student	25 (6.19)	36 (8.91)
Retired	0 (0.00)	29 (7.18)
Family income (SR)		
1000 < 2000	19 (4.70)	
2000 < 4000	70 (17.33)	
4000 < 6000	67 (16.58)	
≥ 6000	248 (61.39)	
Mean ±SD	5693.069±1851.791	
Number of family member		
Range	1-16	
Mean ±SD	5.431±2.400	
Number of rooms		
Range	1-8	
Mean ±SD	3.319±1.131	
Rate congestion		
Range	1-4	
Mean ±SD	1.699±0.640	

There was a highly significant difference ($P<0.01$) in bleeding between women affected by physical violence behavior compared to those not affected. Meanwhile, there was no significant difference between the group subjected to hitting that lead to injury and pulling hair. The incidence of preterm birth was significantly higher ($P<0.01$) among women who had faced different forms of physical violence (pulling hair 26.09%, slapping the face 23.19%) as compared to those who had not faced these forms of violence (respectively, 7.41% & 11.11%). There was a highly significant difference ($P<0.01$) in abortion between women affected by physical violence behavior compared to those not affected. Meanwhile, there was no significant difference between the group subjected to kicking and pulling hair (Table 2).

Table (2) Pregnancy Outcome and Physical Violence Behavior Among Participants

Physical Violence Behavior	Pregnancy Outcome					Chi-Square	
	Not affected <i>n</i> =243(%)	Abortion <i>n</i> =78(%)	Preterm birth <i>n</i> =69(%)	Bleeding <i>n</i> =14(%)	Total <i>n</i> (%)	X ²	<i>P</i> -value
Slapping the face	27 (11.11)	11 (14.10)	16(23.19)	9 (64.29)	63(15.59)	23.786	0.001*
Beating the abdomen during pregnancy	13 (5.35)	13(16.67)	8 (11.59)	6 (42.86)	40 (9.90)	20.564	0.001*
Kicking	13 (5.35)	3 (3.85)	11 (15.94)	5 (35.71)	32 (7.92)	18.034	0.001*
Pulling hair	18 (7.41)	4 (5.13)	18(26.09)	2 (14.29)	42 (10.40)	19.054	0.001*
Mild beating	25 (10.29)	12 (15.38)	16 (23.19)	5 (35.71)	58 (14.36)	11.395	0.010*
Hitting leads to injury	9 (3.70)	5 (6.41)	5 (7.25)	1 (7.14)	20 (4.95)	2.008	0.571

There was a highly significant difference ($P<0.01$) in bleeding between women affected by emotional violence behavior compared to those not affected. Meanwhile, there was no significant difference between the group subjected to abandonment and preventing from work ($p = 0.555$). The incidence of preterm birth was significantly higher ($P<0.01$) among women who had faced different forms of emotional violence (husband jealousy 76.81%, criticism in front of others 56.52%, Quarrel 52.17%) as compared to those who had not faced these forms of violence (respectively, 91.77%, 18.52%, 84.36%). The incidence of abortion was significantly higher ($P<0.01$) among women who had faced different forms of emotional violence (husband jealousy 78.21%, quarrel 53.85%, criticism in front of others 35.90%) as compared to those who had not faced these forms of violence (respectively, 91.77%, 84.36%, 18.52%) (Table 3).

Table (3) Pregnancy Outcome and Emotional Violence Behavior Among Participants.

Emotional Violence Behavior	Pregnancy outcome					Chi-Square	
	Not affected <i>n</i> =243(%)	Abortion <i>n</i> =78(%)	Preterm birth <i>n</i> =69(%)	Bleeding <i>n</i> =14(%)	Total <i>n</i> (%)	X ²	<i>P</i> -value
Quarrel	205(84.36)	42 53.85)	36 52.17)	6 (42.86)	289 (71.53)	49.563	0.001*
Abandonment	18 (7.41)	12 15.38)	10 14.49)	3 (21.43)	43 (10.64)	6.953	0.073
Insulting	12 (4.94)	6 (7.69)	16 23.19)	3 (21.43)	37 (9.16)	20.220	0.001*
Locked inside the house	14 (5.76)	4 (5.13)	15 21.74)	3 (21.43)	36 (8.91)	17.333	0.001*
Preventing from work	11 (4.53)	3 (3.85)	6 (8.70)	1 (7.14)	21 (5.20)	2.083	0.555
Extortion money	1 (0.41)	2 (2.56)	8 (11.59)	2 (14.29)	13 (3.22)	22.348	0.001*
Preventing from eating	4 (1.650)	3 (3.85)	5 (7.25)	2 (14.29)	14 (3.47)	8.077	0.044*
Sarcasm	18 (7.41)	8 (10.26)	30 43.48)	3 (21.43)	59 (14.60)	47.007	0.001*
Threat of divorce or deprivation from children	16 (6.58)	11(14.10)	6 (8.70)	4 (28.57)	37 (9.16)	8.437	0.038*
Husband humiliation in front of others	31 (12.76)	20 25.64)	20 28.99)	9 (64.29)	80 (19.80)	26.435	0.001*
Husband criticism in front of others	45 (18.52)	28 35.90)	39 56.52)	9 (64.29)	121 (29.95)	45.797	0.001*
Husband controlling finances	12 (4.94)	10 12.82)	17 24.64)	4 (28.57)	43 (10.64)	24.776	0.001*
Husband jealousy	223(91.77)	61 78.21)	53(76.81)	8 (57.14)	345 (85.40)	22.103	0.001*
Husband discouraging from visit the family	25 (10.29)	17(21.79)	20 28.99)	11 (78.57)	73 (18.07)	41.272	0.001*

Incidence of bleeding was significantly higher ($P<0.01$) in all cases among women who had faced various forms of sexual violence (forcing into unwanted sexual practice 71.43%, unwanted sexual comments 57.14%, forcing into sexual practice 50%) as compared to those who had not faced these forms of violence (6.17%, 7.82%, 9.88% respectively). While, the incidence of preterm birth was also significantly higher ($P<0.01$) in all cases among women who faced sexual violence ((Forcing into unwanted sexual practice 44.93%, forcing into sexual practice 43.48%, and Physical abuse during intercourse 26.09%) as compared to those who did not face these forms of violence (respectively, 6.17%, 9.88%, and 3.29%). On other hand, incidence of abortion was significantly higher ($P<0.01$) among women who had sexual violence, they reported (forcing into sexual practice 23.08 % and forcing into unwanted sexual practice 23.08 %, and unwanted sexual comment 20.51%) as compared to those who did not face these forms of violence (Table 4).

Table (4) Pregnancy Outcome and Sexual Violence Behavior Among Participants.

Sexual violence behavior	Pregnancy Outcome					Chi-Square	
	Not affected <i>n</i> =243(%)	Abortion <i>n</i> =78(%)	Preterm birth <i>n</i> =69(%)	Bleeding <i>n</i> =14(%)	Total <i>n</i> (%)	X ²	<i>P</i> -value
Forcing into sexual practice	24 (9.88)	18 (23.08)	30 (43.48)	7 (50)	79 (19.55)	44.459	0.001*
Physical abuse during intercourse	8 (3.29)	12 (15.38)	18 (26.09)	6 (42.86)	44 (10.89)	42.485	0.001*
Unwanted sexual comment	19 (7.82)	16 (20.51)	16 (23.19)	8 (57.14)	59 (14.60)	29.613	0.001*
Ridicule sexual comment	12 (4.94)	12 (15.38)	7 (10.14)	2 (14.29)	33 (8.17)	9.202	0.027*
Forcing into unwanted sexual practice	15 (6.17)	18 (23.08)	31 (44.93)	10 (71.43)	74 (18.32)	76.169	0.001*

In addition, there was a highly significant difference 0.001 between women abuse and educational level. Meanwhile, there is no significant difference as regards women abuse and family income. On the other hand, other parameters showed there is significant relation between women abuse and pregnancy outcome as showed in Table (5).

Table (5) Mean Score of WAST with Participant level of Education, Family Income and Pregnancy Outcomes) by ANOVA Test

Items	Mean Score			ANOVA	
	N	Mean	SD	F	<i>P</i> -value
Level of Education					
Illiterate / Primary	75	14.093	3.001	8.923	0.001*
Preparatory/ Secondary	120	15.092	2.756		
Graduate / Postgraduate	209	15.636	2.611		
Family income (SR)					
< 1000	19	14.474	2.970	1.238	0.295
2000 – 4000	70	15.114	2.917		
4000 – 6000	67	15.701	2.499		
≥ 6000	248	15.125	2.799		
Pregnancy outcome					
Not affected	243	14.984	2.906	2.817	0.039*
Abortion	78	15.808	2.678		
Preterm birth	69	15.449	2.483		
Bleeding	14	14.000	1.797		
Total Score	404	15.188	2.783		

Overall, the most common factors significantly affecting pregnancy outcome by the order of their odd ratio were; money extortion, sarcasm, and kicking, (respectively, 25.046, 3.516 & 1.523) (Table 6).

Table (6) Multiple Regression for Different Factors Affecting Pregnancy Outcomes

Abuse Items	B	P-value	Odd Ratio
Physical abuse			
Slapped	0.118	0.778	1.126
Beating the abdomen during pregnancy	-0.078	0.894	0.925
Kicking	0.420	0.533	1.523
Pulling hair	-1.233	0.075	0.292
Mild beating	0.034	0.941	1.034
Emotional abuse			
Quarrel	-0.864	0.019*	0.422
Insulting	-0.222	0.685	0.801
Locked inside the house	-0.355	0.549	0.701
Extortion money	3.221	0.042*	25.046
Preventing from eating	0.150	0.822	1.162
Sarcasm	1.257	0.004*	3.516
Threat of divorce or deprivation from children	0.026	0.957	1.026
Husband humiliation in front of others	0.410	0.407	1.506
Criticizing wife in front of Others	-0.316	0.456	0.729
Husband controlling finances	-0.415	0.416	0.661
Husband jealousy	0.274	0.503	1.316
Husband discouraging from visit the family	-0.136	0.762	0.873
Sexual abuse			
Forcing into sexual practice	0.176	0.709	1.192
Physical abuse during intercourse	-1.169	0.047*	0.311
Unwanted sexual comment	0.344	0.519	1.411
Ridicule sexual comment	0.340	0.552	1.405
Forcing into unwanted sexual practice	-1.563	0.003*	0.209
Constant	4.048	0.029*	57.293

4. Discussion:

The present findings revealed that there was a highly statistically significant association between exposure to physical, psychological, sexual violence and pregnancy outcome. In this study as in other places, violence against women is strongly associated with maternal morbidity.

Researches on an association between violence and adverse pregnancy outcome have reported that victims of IPV suffer significant negative health consequences because of the physical, sexual, and emotional abuse they have experienced^(20,21). Domestic violence during pregnancy was associated with adverse pregnancy outcomes such as low birth weight, spontaneous abortion, bleeding during pregnancy, preterm labor, preterm delivery and higher neonatal deaths⁽²²⁾. Our findings showed that there was a highly significant relation of abuse among women with the bleeding during pregnancy and preterm labor. This is in accordance with previous studies indicating that abuse during pregnancy was significantly associated

with an increased risk of preterm labor and bleeding⁽²³⁾.

The most important causes of violence in our study were nervousness of husband, followed by economical problems and unemployment. Those findings were consistent with another study which concluded that low income and unemployment of husband were observed in 74.24% of the cases and aggressive nature of husband was observed in 11.26% of the cases⁽²⁴⁾.

The participants in this study reported their exposure to emotional abuse by their husbands in several forms as limiting social contact, and reducing sense of self-worth and value. In addition, the other frequently cited examples of psychological maltreatment include verbal abuse, such as quarrel; threat of abandonment; insults; criticism and humiliation in front of others; threats of divorce and deprivation from children.

Furthermore, the other form of emotional abuse by the male partner was ridicule; this was cited by

17.33%, it affects the woman's self-esteem and makes her feel worthless. By ridiculing the woman's traits, her security in the relationship may be seriously damaged, that might lead to depression and low self-esteem. Such an assertion has been supported by other studies⁽²⁵⁾.

During interview, the wives stated that the husband became dominant and increase his dependence on her, also, might rigidly control the finances. Because of his jealousy, the husband was trying to control every aspect of her life, then they were in a very bad situation and discouraged from visiting the family or even going to work or university.

Moreover, the three adverse pregnancy outcomes in terms of abortion, preterm labor and bleeding were significantly greater in women who reported any type of intimate partner violence. Meanwhile, neither abandonment nor preventing women from work, did not have any relationship with violence.

Based on our data the majority of women denied exposure to sexual abuse, it may be reflected to various reasons; firstly, the fact that viewing the partner violence remains a delicate subject for discussion; secondly, presence of a relative during the interview may constrain discussion about domestic violence; thirdly, some women were unwilling to disclose violence, because of social stigma, variety of social norms and religious beliefs related to family privacy or cultural sanctioning of violence. This result is supported by intimate partner violence in Hong Kong that was referred to as a very taboo subject that far too many people were afraid to talk about⁽²⁶⁾.

Reasons for failure to disclose had been summarized in multiple papers and included fear of retaliation, being blamed, lack of confidentiality, losing their children, losing what little control they had, economic or psychological dependence on the abuser, and the promise to change⁽²⁷⁾.

One fifth of women in our study mentioned that they were forced in intercourse by an intimate partner within marriage, on the other hand (14.60%) reported that their husbands were giving them unwanted sexual comment, humiliating and criticizing of their sexuality. Although, pregnancy is supposed to be a time of peace and safety, a time where the family turns its thoughts towards raising the next generation and growing a healthy baby, unfortunately for many women, pregnancy could be the beginning of a violent time in their lives.

Finally, in the current study, the association between IPV in all forms was strongly associated with educational level of the participant. Some studies had supported the association between domestic violence and the educational level. Abuya BA *et al* had shown that there was a robust relationship between the level of education of a woman and partner violence⁽²⁸⁾.

Another study showed that, the women who had primary and secondary education were more likely to experience abuse either physical, emotional, or sexual in nature compared to women with postsecondary education. However, other research had identified an inverse relationship between a woman's educational attainment and domestic violence. This relationship explains the findings that more education increases the risk of physical and sexual violence among women⁽²⁹⁾.

Indeed, the results also showed that there was no association between women abuse and family income, although, women's economic status was expected to be linked to domestic violence. Mutiso MM *et al* confirmed that, the majority of women's economic status was the ones contributing to domestic violence among them in low-income residential areas. Therefore, strong associations had been found between domestic violence and low household income⁽³⁰⁾.

The study has several limitations: primarily, the sample was relatively small; secondly, not all of the participants who were asked to participate were willing or able to do so. It could be speculated that those women who declined to be interviewed were the women, who might be most at risk for adverse pregnancy outcome, and that they did so because of fear of retaliation. Emotional factor on pregnancy outcome was an important contributor towards maternal morbidity. Therefore, this important issue had been neglected.

Recommendation

Efforts are required to develop a strategy about how to deal with abused women. Based on this study findings, authors recommended that all health care providers must be educated about this issue and should be trained to identify the problem and create solutions. Also, counseling of women experiencing IPV requires further evaluation and research.

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7/2/2013