

Exploring the Prevalence and Correlates Associated With Intimate Partner Violence During Pregnancy in Bangladesh

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Abstract

Intimate partner violence (IPV) during pregnancy is known to have multiple detrimental consequences for the woman and potentially for her unborn child. However, little is known about the nature and extent of IPV during pregnancy, particularly in developing countries, which compromises efforts to address the problem. Relying on population-based data, this article examines the extent, patterns, and correlates associated with physical, sexual, and psychological IPV during pregnancy in Bangladesh. Cross-sectional survey data were collected between October 2015 and January 2016 from 426 new mothers, aged 15 to 49 years, who were in the first 6 months postpartum. IPV was assessed with a validated set of survey items. Multivariate logistic regression analyses were conducted to evaluate correlates associated with different types of IPV. Overall, 66.4% of women experienced any IPV during pregnancy. The prevalence of physical, sexual, and psychological IPV was 35.2%, 18.5%, and 65%, respectively. These forms of IPV often overlap,

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particularly physical and psychological IPV. Pregnant women who report limited social support and have controlling husbands are at significantly increased risk for all three types of IPV during pregnancy. Women who cling to traditional gender roles and those with low self-esteem exhibit increased risk for physical and psychological IPV during pregnancy. Psychological IPV during pregnancy is also correlated with low decision-making autonomy and childhood exposure to violence. Women whose husband's demand a dowry at marriage are at increased risk of sexual IPV during pregnancy. Results reinforce the need to conduct routine screening during pregnancy to identify women with a history of IPV and to be able to offer help and support. The findings also reinforce calls for gender equity and women's equal access to family and social resources thereby increasing women's social support networks, their self-esteem, and autonomy, and reducing their risk of IPV during pregnancy.

Keywords

intimate partner violence during pregnancy, prevalence, correlates, traditional gender roles acceptance, decision-making autonomy, Bangladesh

Introduction

Intimate partner violence (IPV) can take the form of physical, sexual, and psychological coercion along with controlling behaviors against women by a current or former intimate partner or spouse (World Health Organization [WHO], 2013). Research has identified numerous short- and long-term consequences associated with IPV (Dillon, Hussain, Loxton, & Rahman, 2013; Howard, Oram, Galley, Trevillion, & Feder, 2013; Sarkar, 2008). These consequences are potentially exaggerated when IPV occurs around the time of pregnancy given the potential impacts on the health and wellbeing of the developing child as well as the mother. Direct health consequences of IPV during pregnancy include increased risk for unwanted pregnancy, preterm delivery, miscarriage, low birth weight, injury (Dillon et al., 2013; Shah & Shah, 2010), depression, anxiety, and posttraumatic stress disorder (Howard et al., 2013; Islam, Broidy, Baird, & Mazerolle, 2017b). Indirect health consequences include substance abuse (Datner, Wiebe, Brensinger, & Nelson, 2007), constrained access to antenatal care (Cha & Masho, 2014; Islam, Broidy, Baird, & Mazerolle, 2017a), insufficient weight gain during pregnancy (Shadigian & Bauer, 2004), disturbances in maternal-child bonding (Sharps, Laughon, & Giangrande, 2007; Trabold, Waldrop, Nochajski, & Cerulli, 2013), and early cessation of breastfeeding (Islam, Baird, Mazerolle,

& Broidy, 2017; Taveras et al., 2003). Unfortunately, many women experience IPV around the time of pregnancy (Taillieu & Brownridge, 2010). A recent meta-analysis that included studies from the United States as well as other developed and developing countries established the prevalence of IPV during pregnancy to be between 4.8% and 63.4% (James, Brody, & Hamilton, 2013).

Though scholarship on the risks of IPV during pregnancy is progressing, notable gaps still remain, particularly since the bulk of research focuses exclusively on physical IPV during pregnancy (Howard et al., 2013; Scribano, Stevens, & Kaizar, 2013), or on IPV broadly, with no disaggregation by type (Bianchi, McFarlane, Cesario, Symes, & Maddoux, 2016). Furthermore, most of this work draws on data from high-income countries, with limited research on low-income countries, including Bangladesh (Nasir & Hyder, 2003; Taillieu & Brownridge, 2010). This is especially problematic given that IPV during pregnancy more commonly occurs in low- and middle-income countries at a high rate (27.7%–32%) when compared with high-income countries (12%–13.3%; Devries et al., 2010; James et al., 2013). So, while the extant literature identifies multiple risk factors for IPV during pregnancy, including young age, lower levels of education, low socioeconomic status, living in rural areas and extended families, history of childhood violence, unintended pregnancy, limited social support, low self-esteem, husband's substance abuse, and husband's controlling behaviors (Cooper, 2013; James et al., 2013; Taillieu & Brownridge, 2010), it is not clear whether these factors are equally salient in low- and middle-income countries such as Bangladesh. In fact, there is reason to believe that of particular salience in developing countries is the enduring patriarchal norms and values that persist in these contexts and common experiences of early exposure to family and community-based violence. These factors may have particular relevance for IPV during pregnancy.

The literature contains mixed results in relation to whether pregnancy is a vulnerable period for IPV, and whether IPV escalates in severity during pregnancy. Some argue that IPV may intensify during pregnancy (Charles & Perreira, 2007; Clark, Hill, Jabbar, & Silverman, 2009; Donovan, Spracklen, Schweizer, Ryckman, & Saftlas, 2016; Mercedes & Lafaurie, 2015), becoming more severe (Brownridge et al., 2011), and more frequent (Martin et al., 2004). This intensification may be linked to changes in physical, social, emotional, and economic needs of women during pregnancy, increased economic pressure, and less frequent sexual relations (Brownridge et al., 2011; Jeanjot, Barlow, & Rozenberg, 2008; Saltzman, Johnson, Gilbert, & Goodwin, 2003). Other studies have taken into consideration the psychological status of the perpetrator during his partners' pregnancy, such as increased stress over having to support a newborn infant, anger over an unplanned pregnancy, and

jealousy that the female partner's attention may have shifted to the baby (Brewer & Paulsen, 1999). A partner's pregnancy may also induce suspicion of infidelity in abusive males (Goetz, Shackelford, Romero, Kaighobadi, & Miner, 2008; Harris, 2003; Hellmuth, Gordon, Stuart, & Moore, 2013). Some men are intended in controlling female sexuality and preventing infidelity (Buss & Shackelford, 1997; Cousins & Gangestad, 2007; Pallitto & O'Campo, 2005), and are therefore inclined to use violence as a controlling strategy (Buss & Duntley, 2011). On balance, these studies implicate patriarchal norms and highlight correlates such as husband's controlling behaviors, women's complicity with patriarchal gender norms, women's limited agency, and reduced social competence in patriarchal contexts to account for the elevated risk of IPV during pregnancy. These are factors that are likely particularly acute in patriarchal cultures like Bangladesh and their impacts are tested in the current study.

Even so, some researchers have suggested that IPV during pregnancy is not related to pregnancy, but is actually a continuation of preexisting patterns of violence in a relationship (Taillieu & Brownridge, 2010), while others suggest that pregnancy may provide somewhat of a protective respite (Decker, Martin, & Moracco, 2004; Jasinski, 2001). In these cases, patriarchal attitudes may still be at play since they are implicated in IPV more generally, not just during pregnancy, but may also include things like childhood exposure to violence, and other behavioral and social models that reinforce violence and IPV more generally. Here we do not test whether these factors are unique to IPV during pregnancy, but rather whether they help explain the type and prevalence of IPV among Bangladeshi women around the time of pregnancy. Understanding the correlates of IPV during pregnancy in low-income countries such as Bangladesh, where women are particularly vulnerable, is an important step toward developing effective intervention and prevention protocols.

Currently, Bangladesh ranks second in the World Bank top 15 countries with the highest global prevalence of physical IPV (Solotaroff & Pande, 2014), despite the government's institutionalization of the Domestic Violence Act (2010). Bangladesh is a patriarchal society and the high rates of IPV are likely linked to prevailing patriarchal norms, including social acceptance of IPV. While a growing number of studies have estimated the lifetime or current prevalence of IPV in Bangladesh and across the world, very few studies have examined IPV during pregnancy (Martin, Arcara, & Pollock, 2012). To our knowledge, only one study examining correlates of IPV during pregnancy has been conducted in Bangladesh, and it focused exclusively on physical IPV (Naved & Persson, 2008). In addition, most research knowledge about the correlates and impacts of IPV during pregnancy is drawn from

developed contexts (Brown, McDonald, & Krastev, 2008), little of it addresses the prevalence and correlates of sexual and psychological IPV during pregnancy (Chan et al., 2011; Taillieu & Brownridge, 2010). This too is a notable gap because, like physical IPV, sexual and psychological IPV around the time of pregnancy have detrimental consequences for women and their children (WHO, 2013). To help address these knowledge gaps, the study aims are designed at investigating the extent, patterns, and correlates of physical, sexual, and psychological IPV during pregnancy in a population-based sample of women of Bangladesh. In this way, we extend our understating of IPV during pregnancy to less-developed contexts and assess the way in which pregnancy impacts different forms of IPV. Informed by the available literature, this study investigates the impact of patriarchal norms and exposure to violence on IPV during pregnancy by assessing the following hypotheses:

Hypothesis 1 (H1): Women married to husbands with controlling behaviors will be at higher risk for IPV during pregnancy.

Hypothesis 2 (H2): Women who have more conservative attitudes toward traditional gender roles will exhibit an increased risk for IPV during pregnancy.

Hypothesis 3 (H3): Women with low decision-making autonomy will be at an increased risk of IPV during pregnancy.

Hypothesis 4 (H4): Limited social support, low self-esteem, and dowry demands at marriage will significantly increase the risk for IPV during pregnancy.

Hypothesis 5 (H5): History of childhood violence will be positively associated with IPV during pregnancy.

Method

Setting and Participants

A retrospective, cross-sectional survey of women was conducted from October 2015 to January 2016 in two subdistricts of the Chandpur district of Bangladesh. The target population was new mothers who visited vaccination centers to receive their baby's vaccinations. Married women aged between 15 and 49 years, living with their husbands for minimum last 2 years, and who were in the first 6 months postpartum, were eligible for the study. These selection criteria were applied to explore the reproductive-age women's experience of exposure to IPV from their current partner. A multistage random sampling method was adopted to draw subjects. In total, 426 women participated in the study.

The data collection procedure has been described in detail previously (Islam, Baird, Mazerolle, & Broidy, 2017; Islam et al., 2017a). Face-to-face structured interviews lasting 45 to 60 min were conducted in a safe and private room with unaccompanied and eligible mothers who agreed to participate in the study. A closed-form interview technique was applied due to the relatively low level of literacy in the sample population. Two local female interviewers, with experience and knowledge in sociology and quantitative data collection procedures, were recruited to conduct interviews. The questionnaire was developed in English and then translated into Bengali, and pre-tested with Bengali speakers before being administered. Participation was entirely voluntary and did not affect receiving health care in any way.

A monetary “thank-you gift” (500 BDT ~ 6.50 USD) was offered to each participant to compensate for their time. Finishing the interview, every participant was offered a brochure detailing community resources on IPV, for example, helpline, phone numbers, legal services, which they could access free of charge. Taking safety issues into account, the respondents were cautioned not to take the brochure home if it made them feel unsafe to do so, but rather to leave it with one of their most trusted friends or family members.

Ethical approval was received from the National research ethics committee of Bangladesh Medical Research Council (BMRC/NREC/2013-2016/305) and Human Research Ethics Committee of the University (CCJ/41/14/HREC) before conducting the study. In consideration of the sensitive nature and cultural context of the study, verbal informed consent from respondents was obtained to ensure complete anonymity for respondents.

Measures

Exposure to IPV. Women’s exposure to IPV during pregnancy was the primary outcome of interest. In this study, “intimate partner” refers to the respondent’s current partner or spouse. The study collected information on IPV experienced by women during pregnancy using the domestic violence module from the WHO’s Demographic Health Survey Questionnaire. The WHO domestic violence module has been validated for use in Bangladesh (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006). A positive answer to any one of the following seven behaviors against the respondent constitute physical IPV: (a) pushing, shaking, or throwing something at her; (b) slapping; (c) twisting her arm or pulling hair; (d) punching or hitting with a fist or something harmful; (e) kicking or dragging or physically assaulting her; (f) choking or burning; or (g) threatening or attacking with a knife, gun, or any other weapon.

A woman was coded as having experienced sexual IPV by her partner if she reported having been physically forced to have sexual intercourse, having

intercourse out of fear, or being forced to perform other sexual acts that she found degrading or humiliating. Psychological IPV was measured by at least one affirmative answer to questions asking whether or not the respondent's partner had insulted her or made her feel bad about herself, humiliated her in front of others, threatened to hurt her or someone close to her, isolated her from friends and family, denied her access to money or other basic resources, or threatened to divorce her.

The Cronbach's alphas for physical, sexual, and psychological IPV scales in this study were 0.78, 0.47, and 0.75, respectively. The Cronbach's alpha for sexual IPV is slightly low, perhaps due to fewer numbers of items. Each participant was asked if she had been exposed to any of these indicators of IPV during the index pregnancy, referred to herein as "IPV during pregnancy." An affirmative answer to any one of the items of physical, sexual, or psychological IPV was treated as "Any IPV." Physical, sexual, psychological, and any IPV were coded as no (= 0) and yes (= 1).

Husband's controlling behaviors. To ascertain the level of control in a relationship, a scale comprised of the following items was utilized: (a) husband tries to keep her from seeing friends, (b) tries to restrict contact with her family of birth, (c) insists on knowing where she is at all times, (d) does not trust her with any money, (e) gets angry if she speaks to another man, (f) is often suspicious that she is unfaithful, and (g) expects her to ask permission before seeking health care for herself. The responses to these variables are dichotomous (0 = no and 1 = yes). The total score was classified in tertiles as less controlling (= 0), moderately controlling (= 1), and highly controlling (= 2). This controlling behaviors scale has been validated for use in Bangladesh (Garcia-Moreno et al., 2006). The Cronbach's alpha for this scale in the present study was .72.

Women's decision-making autonomy. This item is measured with a scale that reflects the number of household decisions a woman made alone or jointly with her husband with regards to: (a) spending her income, (b) obtaining health care for herself, (c) major household purchases, (d) purchases for daily household needs, (e) visit to family or relatives, and (f) obtaining child health care (Rahman, Nakamura, Seino, & Kizuki, 2012). The response options were as follows: (a) respondent alone, (b) respondent and husband, (c) respondent and someone else, (d) husband alone, and (e) someone else. Each question was assigned a value of 1 if the response was (a), (b), or (c), and 0 for (d) or (e). The scores were summed together resulting in a score from 0 to 6 (Cronbach's $\alpha = .87$). The total score was classified in tertiles as low autonomy (= 0), moderate autonomy (= 1), and high autonomy (= 2).

Traditional gender role attitudes. An index of traditional gender role attitudes was constructed based on the respondent's views about six statements regarding men's and women's roles in various situations (Hoffman & Kloska, 1995). For each statement, a value of 1 was assigned if the respondent agreed, and 0 if the respondent disagreed. The scores were added together resulting in a score from 0 to 6 (Cronbach's $\alpha = .85$). A low score indicates less gender stereotyping or a more egalitarian orientation while a high score represents acceptance of traditional gender roles. As previous studies have not established suggested cut-points for traditional gender roles, the total score was classified in tertiles as less traditional gender roles attitudes (0-3 aspects) = 0, moderately traditional (4-5 aspects) = 1, and highly traditional = 2.

Self-esteem. Women's self-esteem was measured with the Rosenberg Self-Esteem Scale (RSES). The RSES is a 10-item scale that assesses self-esteem by measuring both positive and negative feelings about the self (Rosenberg, 1965). All items are answered using a 4-point Likert scale format ranging from "strongly agree" to "strongly disagree." After reverse scoring for some items, a total score ranges from 0 to 30. Higher scores refer to higher self-esteem. The Bangla version of RSES was validated in Bangladesh (Uddin, Islam, & Asaduzzaman, 2012). No predetermined cut-points for low self-esteem exist (Isomaa, Vaananen, Forojd, Kaltiala-Heino, & Marttunen, 2013). However, the cut-off score was set for this analysis at 15 points to classify women as low self-esteem (score <15 = 0) and high self-esteem (score $\geq 15 = 1$) following the guidelines of some organizations (The Participation and Quality of Life Tool-Kit, 2016; W.W. Norton and Company, 2016). The internal consistency for this scale was very good in the present study (Cronbach's $\alpha = .84$).

Social support. Following the lead of Chan et al. (2011), this study includes a 10-item social support scale drawn from the Family Needs Screener (a short version of personal and relationship profile prepared by Straus and associates; Kantor & Straus, 1999). Women were asked to respond using four response categories (1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, and 4 = *strongly agree*) to the 10 statements. The total score was classified in tertiles as low social support (= 0), medium social support (= 1), and high social support (= 2). The internal consistency for this scale was very good (Cronbach's $\alpha = .90$).

Any childhood exposure to violence. Childhood physical abuse was measured by asking respondents if they had ever been beaten or physically mistreated in any way by anyone before 15 years of age. Childhood sexual abuse was

measured by asking respondents if they had ever been forced to have sex, kissed, or forced to undress or perform sexual acts against their will before 15 years of age. Childhood psychological abuse was measured by asking respondents if they had ever been verbally abused by anyone other than their husband before 15 years of age. For each item, respondents answered either no (0) or yes (1). If respondents scored a 0 on all the three items, they were classified as having no childhood exposure to violence = 0, while those with any childhood exposure to violence scored a 1.

Witnessing parental violence in childhood. Witnessing parental violence in childhood was measured by asking respondents whether they had ever witnessed their father physically or verbally abusing their mother during their childhood (Islam, Rahman, et al., 2017). Response choices range from 0 (*no*) to 1 (*yes*).

Sociodemographic factors. The study included a range of sociodemographic variables that have been theoretically and empirically associated with IPV during pregnancy (Clark et al., 2009; Garcia-Moreno et al., 2006; Perales et al., 2009). The maternal age during the pregnancy was categorized into tertiles (14-18 years = 0, 19-24 years = 1, or 25 years and over = 2). The educational level was classified with regard to the formal education system of Bangladesh: no education (0 years = 0), primary (1-5 years = 1), and secondary and higher (6 years or more = 2). Area of residence was grouped as rural (= 0) versus urban (= 1). Family monthly income was classified according to the national average (8,500 BDT ~ 109 USD) as $\leq 8,500$ BDT (= 0) versus $> 8,500$ BDT (= 1). Family structure was coded as extended (= 0) versus nuclear (= 1). Number of children was coded as 1 = 0, 2 = 1 and ≥ 3 = 2. Relationship characteristics such as dowry demands at marriage (no = 0, yes = 1) and pregnancy intention (unintended = 0, intended = 1), and behavioral characteristics such as husband's substance abuse (none = 0, alcohol = 1, drugs = 2 and both = 3) were included in this study.

Statistical Analysis

SPSS version 22.0 for Windows (SPSS Inc., Chicago, IL, USA) was used for coding and analyzing the data. Descriptive statistics were used to detail the prevalence of different types of IPV. In addition, analyses examined the effect of various characteristics and experiences that might influence IPV outcomes. This set of analyses was conducted in two stages. First, bivariate chi-square analyses tested linear associations between predictor variables (sociodemographic characteristics, obstetric and reproductive characteristics, and

psycho-socio-cultural characteristics) and different forms of IPV during pregnancy. Second, as all of the predictor variables and outcome variables in this study were categorical, three logistic regression analyses were used, one for each type of IPV during pregnancy to assess multivariate associations between the relevant predictors and outcome variables.

Before logistic regression analyses were conducted, the multicollinearity of all independent variables was checked using a cut-off variance inflation factor (VIF) of 2.50 or above (Field, 2009), to establish if they were highly correlated. IPV prior to pregnancy had a high correlation with IPV during pregnancy (correlation of physical and psychological IPV between before and during pregnancy were .70, and .90, respectively) and was excluded from the multivariate analysis. A two-tailed p value of $<.05$ was set to refer the level of statistical significance. Cronbach's alpha was used to examine the internal consistency of items in a scale.

Results

Profile of the Respondents

Table 1 displays the socioeconomic and demographic characteristics of the respondents in our sample. Just over half of the women (54.5%) were 15 to 24 years old, nearly 8.2% of women had no formal education, and approximately 63.4% of marriages involved dowry demands. About, one in three (27.7%) of the women's partner had high controlling behaviors. More than half of the women both witnessed any parental violence and experienced any violence before 15 years of age.

Prevalence of IPV During Pregnancy

The prevalence of physical, sexual, and psychological IPV during pregnancy was 35.2%, 18.5%, and 65%, respectively, with approximately three quarters of the women (66.4%) experiencing some IPV during pregnancy. Table 2 shows that the most common types of physical IPV during pregnancy were slapping (31%) and pushing (26.1%). Physically forced intercourse (18.1%) was the most frequent type of sexual IPV. Humiliation in front of others (58.7%) and insults (58.5%) were the most common types of psychological IPV during pregnancy in this particular sample of women.

Co-Occurrence of IPV During Pregnancy

Simultaneous occurrence of physical, sexual, and psychological IPV was 17.0%. Psychological IPV often occurs in isolation (36.4% of women report

Table 1. Bivariate Associations Between Various Factors and Different Forms of IPV Experienced by Bangladeshi Women During Pregnancy (N = 426).

Characteristics	n (%)	Physical IPV (%)	Sexual IPV (%)	Psychological IPV (%)
Sociodemographic characteristics				
Age during pregnancy				
14-18	106 (24.9)	32.1	19.8	62.3
19-24	187 (43.9)	27.8	13.9	61.0
≥25	133 (31.2)	38.3	14.3	59.4
p value		.14	.36	.90
Respondent's education				
No education	35 (8.2)	60.0	20.0	85.7
Primary	104 (24.4)	53.8	29.8	81.7
Secondary and higher	287 (67.4)	25.4	14.3	56.4
p value		<.001	.002	<.001
Husband's education				
No education	58 (13.6)	50.0	31.0	86.2
Primary	151 (35.4)	41.7	23.2	76.8
Secondary and higher	217 (50.9)	26.7	12.0	51.2
p value		<.001	.001	<.001
Area of residence				
Rural	292 (68.5)	37.7	20.2	67.8
Urban	134 (31.5)	29.9	14.9	59.0
p value		.12	.19	.08
Family structure				
Extended	171 (40.1)	30.4	19.3	57.9
Nuclear	255 (59.9)	38.4	18.0	69.8
p value		.09	.74	.01
Family income				
≤8,500	163 (38.3)	50.9	23.9	85.3
>8,500	263 (61.7)	25.5	15.2	52.5
p value		<.001	.02	<.001
Obstetric and reproductive characteristics				
Number of children				
1	175 (41.1)	29.1	20.6	62.3
2	138 (32.4)	34.8	15.2	60.9
≥3	113 (26.5)	45.1	19.5	74.3
p value		.02	.46	.05
Pregnancy intention				
Unintended	107 (25.1)	53.3	20.6	80.4
Intended	319 (74.9)	29.2	17.9	59.9
p value		<.001	.54	<.001
Psycho-socio-cultural characteristics				
Dowry demands at marriage				
No	156 (36.6)	17.3	7.1	42.9
Yes	270 (63.4)	45.6	25.2	77.8
p value		<.001	<.001	<.001

(continued)

Table 1. (continued)

Characteristics	<i>n</i> (%)	Physical IPV (%)	Sexual IPV (%)	Psychological IPV (%)
Decision-making autonomy (tertiles)				
Low	110 (25.8)	63.6	25.5	95.5
Moderate	175 (41.1)	41.1	25.1	82.3
High	141 (33.1)	5.7	5.0	19.9
<i>p</i> value		<.001	<.001	<.001
Husband's controlling behaviors (tertiles)				
Less controlling	142 (33.3)	2.8	2.8	16.2
Moderately controlling	166 (39.0)	40.4	22.9	84.9
Highly controlling	118 (27.7)	66.9	31.4	95.8
<i>p</i> value		<.001	<.001	<.001
Traditional gender roles acceptance (tertiles)				
Low	161 (37.8)	5.0	6.2	26.1
Moderately	102 (23.9)	41.2	27.5	84.3
Highly	163 (38.3)	61.3	25.2	91.4
<i>p</i> value		<.001	<.001	<.001
Social support (tertiles)				
Low	128 (30.0)	67.2	32.8	98.4
Medium	158 (37.1)	39.9	20.3	79.1
High	140 (32.9)	0.7	3.6	18.6
<i>p</i> value		<.001	<.001	<.001
Self-esteem				
Low	249 (58.5)	57.4	26.1	94.8
High	177 (41.5)	4.0	7.9	23.2
<i>p</i> value		<.001	<.001	<.001
Husband's substance abuse				
None	361 (84.7)	28.8	16.9	59.8
Alcohol	24 (5.6)	41.7	20.8	87.5
Drugs	28 (6.6)	85.7	28.6	96.4
Both	13 (3.1)	92.3	38.5	100.0
<i>p</i> value		<.001	.11	<.001
Witnessing parental violence in childhood				
No	187 (43.9)	20.3	8.0	40.1
Yes	239 (56.1)	46.9	26.8	84.5
<i>p</i> value		<.001	<.001	<.001
Any childhood exposure to violence				
No	189 (44.4)	18.0	11.1	39.7
Yes	237 (55.6)	48.9	24.5	85.2
<i>p</i> value		<.001	<.001	<.001
	Total	35.2	18.5	65.0

Note. IPV = intimate partner violence.

Table 2. Prevalence and Characteristics of Different Types of Intimate Partner Violence During Pregnancy Among Women in Bangladesh (N = 426).

Characteristics	n	%
Physical IPV	150	35.2
Pushed	111	26.1
Slapped	132	31.0
Arm twisted or hair pulled	69	16.2
Punched with fist	50	11.7
Dragged or kicked or Beaten	23	5.4
Choked or burned	5	1.2
Used or threatened gun or knife	2	0.5
Sexual IPV	79	18.5
Physically forced to have sex	77	18.1
Forced to have sex with fear	6	1.4
Forced to engage in acts of sex she found degrading	7	1.6
Psychological IPV	277	65.0
Humiliated in front of others	250	58.7
Insulted and made her feel bad	249	58.5
Threatened to harm herself or someone close to her	13	3.1
Isolate her from friends and family	44	10.3
Denial of access to money or basic resources	84	19.7
Threaten to divorce her	68	16.0
Joint occurrences		
Physical and psychological IPV	101	23.7
Physical and sexual IPV	49	11.5
Psychological and sexual IPV	25	5.9
All types	48	11.3
Any IPV	283	66.4

Note. IPV = intimate partner violence.

only psychological IPV during pregnancy). On the other hand, physical and sexual IPV during pregnancy was rarely reported in isolation (0% and 2.1% respectively). Physical and psychological IPV commonly occurred together during pregnancy, as reported by 35.7% of the sample. Other types of IPV less frequently overlap with 8.8% of respondents reporting both psychological and sexual IPV, but only one woman (0.4%) reporting physical and sexual IPV.

Correlates of IPV During Pregnancy: Bivariate Analyses

The results of the bivariate analysis illustrated several significant differences in the likelihood of different forms of IPV as a function of

sociodemographic, relationship, and behavioral characteristics (Table 1). Consistent with the prior literature on key risk factors for IPV, physical, sexual, and psychological IPV were significantly more prevalent among women with no formal education and for those with low family incomes ($\leq 8,500$). Women living in nuclear families were at higher risk for psychological IPV compared with women living within extended families. Women living in rural areas also reported higher levels of IPV across any type. Women whose husband had no formal education and whose husbands took alcohol or illicit drugs were more likely to experience all types of IPV. Women who had three or more children were more likely to be physically and psychologically victimized than women who had one or two children. Noticeably, the respondent's age during pregnancy was found to have no significant effect on any type of IPV victimization.

Women who reported a dowry demand at marriage, low decision-making autonomy, higher acceptance of traditional gender roles, low self-esteem, and low social support during pregnancy were found to be at higher risk for all types of IPV. Women with an unintended pregnancy were at a higher risk for physical IPV and psychological IPV compared with women with intended pregnancy. Women married to a man who had moderate to high controlling behaviors were more likely to experience all types of IPV. These findings provide supportive evidence in favor of the feminist theory as a potential explanation for IPV during pregnancy.

Women who witnessed or were exposed to violence during childhood were more likely to experience all types of IPV compared with women who never witnessed or were never exposed to such violence. This finding supports the theory that IPV can pass on from one generation to the next, consistent with social learning theory. We more directly test hypotheses derived from feminist and learning theories with multivariate analyses detailed below.

Correlates of IPV During Pregnancy: Multivariate Analysis

Results reported in Table 3 illustrate the outcomes of the multivariate models examining the effects of a range of sociodemographic, relationship, and behavioral characteristics on experiencing different types of IPV during pregnancy. These models offer the most rigorous test of our hypotheses, controlling for a variety of relevant correlates to examine the effects of variables reflecting patriarchal norms and exposure to violence and test their relevance for IPV during pregnancy.

It was hypothesized that husband's controlling behaviors would have a direct influence on IPV victimization during pregnancy (H1). The result revealed that women with controlling husbands were 10 times more likely to

Table 3. AORs and Predicting IPV During Pregnancy Among Married Women Aged 15 to 49 in Bangladesh.

Characteristics	AOR (95% CI)		
	Physical IPV	Sexual IPV	Psychological IPV
Respondent's age during pregnancy (tertiles)			
14-18	1.00	1.00	1.00
19-24	0.53 [0.22, 1.27]	0.51 [0.23, 0.79]***	1.61 [0.43, 6.04]
≥25	0.58 [0.14, 2.42]	0.55 [0.14, 2.15]	1.16 [0.13, 10.17]
Respondent's education			
No education	1.00	1.00	1.00
Primary	0.65 [0.22, 1.91]	1.65 [0.60, 4.56]	0.25 [0.03, 2.43]
Secondary and higher	0.43 [0.15, 1.22]	0.90 [0.32, 2.51]	0.46 [0.05, 4.01]
Husband's education			
No education	1.00	1.00	1.00
Primary	0.67 [0.28, 1.58]	0.71 [0.33, 1.50]	0.71 [0.16, 3.13]
Secondary and higher	1.02 [0.39, 2.63]	0.58 [0.25, 1.32]	1.19 [0.28, 5.12]
Area of residence			
Rural	1.00	1.00	1.00
Urban	0.81 [0.38, 1.71]	0.81 [0.41, 1.62]	2.00 [0.68, 5.86]
Family structure			
Extended	1.00	1.00	1.00
Nuclear	0.72 [0.35, 1.48]	0.75 [0.39, 1.44]	0.86 [0.31, 2.42]
Family income			
≤8,500	1.00	1.00	1.00
>8,500	1.89 [0.93, 3.85]	1.69 [0.89, 3.23]	3.14 [0.87, 11.27]
Number of children			
1	1.00	1.00	1.00
2	1.55 [0.67, 3.56]	0.85 [0.39, 1.86]	0.42 [0.13, 1.39]
≥3	2.03 [0.61, 6.76]	1.53 [0.51, 4.59]	2.33 [0.36, 15.14]
Pregnancy intention ^a			
Unintended	1.00	1.00	1.00
Intended	0.59 [0.28, 1.22]	1.15 [0.56, 2.35]	1.11 [0.33, 3.67]
Dowry demands at marriage			
No	1.00	1.00	1.00
Yes	1.07 [0.50, 2.29]	2.14 [1.54, 4.80]***	1.46 [0.58, 3.66]
Decision-making autonomy (tertiles)			
Low	1.00	1.00	1.00
Moderate	0.64 [0.32, 1.28]	1.48 [0.76, 2.88]	0.35 [0.06, 2.19]
High	0.76 [0.21, 2.82]	0.70 [0.21, 2.34]	0.10 [0.02, 0.62]**
Husband's controlling behaviors (tertiles)			
Less controlling	1.00	1.00	1.00
Moderately controlling	3.78 [0.87, 16.47]	3.92 [1.08, 14.20]***	4.18 [1.54, 11.31]**
Highly controlling	10.08 [2.14, 47.41]**	5.44 [1.39, 21.38]***	9.92 [2.31, 42.57]**
Traditional gender roles acceptance (tertiles)			
Low	1.00	1.00	1.00
Moderately	5.43 [1.57, 18.82]**	1.52 [0.57, 4.06]	4.00 [1.26, 12.76]**
Highly	10.04 [3.04, 33.20]*	1.06 [0.40, 2.77]	4.16 [1.29, 13.46]**

(continued)

Table 3. (continued)

Characteristics	AOR (95% CI)		
	Physical IPV	Sexual IPV	Psychological IPV
Social support			
Low	1.00	1.00	1.00
Medium	0.63 [0.33, 1.22]	0.51 [0.27, 0.99]***	0.15 [0.02, 0.96]***
High	0.05 [0.01, 0.42]**	0.14 [0.04, 0.58]**	0.07 [0.008, 0.52]**
Witnessing parental violence in childhood			
No	1.00	1.00	1.00
Yes	0.62 [0.28, 1.35]	1.81 [0.86, 3.83]	1.50 [0.60, 3.79]
Any childhood exposure to violence			
No	1.00	1.00	1.00
Yes	0.91 [0.45, 1.86]	1.06 [0.53, 2.10]	2.53 [1.02, 6.29]***
Self-esteem			
Low	1.00	1.00	1.00
High	0.28 [0.09, 0.88]***	2.31 [0.85, 6.24]	0.16 [0.05, 0.51]**
Husband's substance abuse			
None	1.00	1.00	1.00
Alcohol	0.46 [0.14, 1.51]	0.74 [0.22, 2.46]	2.74 [0.19, 40.62]
Drugs	6.82 [1.64, 28.38]**	0.82 [0.30, 2.22]	1.75 [0.06, 47.75]
Both	11.16 [1.19, 104.76]***	1.43 [0.38, 5.36]	—
-2 log likelihood	280.29	320.54	167.39
R ² (Cox & Snell)	.47	.19	.59
R ² (Nagelkerke)	.65	.30	.82
Model χ^2 (29, N = 426)	272.44	84.04	384.11
p value	<.001	<.001	<.001
Overall model prediction rate	83.6%	82.4%	92.3%

Note. AOR = adjusted odds ratio; IPV = intimate partner violence; CI = confidence interval.

^aIntended: live birth wanted at the time of conception or unintended: live birth wanted later or not at all.

* $p < .001$. ** $p < .01$. *** $p < .05$.

be physically abused, 3.92 to 5.44 times more likely to be victims of sexual IPV, and 4.18 to 9.92 times more likely to be psychologically abused during pregnancy compared with their nonvictim counterparts.

It was expected that women with conservative attitudes toward traditional gender roles would most likely be victims of IPV during pregnancy (H2). The results indicated that women with traditional gender roles were 5.43 to 10.04 times more likely to experience physical IPV, and 4.00 to 4.16 times more likely to experience psychological IPV during pregnancy compared with those who reported low traditional gender role attitudes.

It was expected that women with limited decision-making autonomy would be at an increased risk of IPV during pregnancy (H3). The findings revealed that women's high decision-making autonomy was associated with a 90% decrease in experiencing psychological IPV during pregnancy

(adjusted odds ratio [AOR]: 0.10, 95% CI [0.02, 0.62]) when compared with women with low decision-making autonomy.

It was also hypothesized that limited social support, low self-esteem, and dowry demands at marriage will be associated with IPV during pregnancy (H4). Findings from this study indicated that women who reported higher social support were 95% less likely to experience physical IPV, 49% to 86% less likely to experience sexual IPV, and 85% to 93% less likely to experience psychological IPV than those with low social support. Additionally, women who had high self-esteem were 72% less likely to experience physical IPV and 84% less likely to experience psychological IPV compared with women who had low self-esteem. A dowry demand at a marriage was associated with a twofold increase in the likelihood of experiencing sexual IPV compared with no dowry demands at marriage.

Finally, it was hypothesized that history of childhood violence will increase IPV during pregnancy (H5). The results indicated partial support for this hypothesis, in that women who were exposed to any childhood violence experienced a more than twofold increased likelihood of psychological IPV compared with those who did not experience any childhood violence. However, witnessing parental violence in childhood did not have any significant direct influence on IPV victimization.

Discussion

This was the first known study in Bangladesh to examine the extent, patterns, and factors associated with physical, sexual, and psychological IPV during pregnancy. Although a range of studies has explored correlates of IPV in general (Capaldi, Knoble, Shortt, & Kim, 2012; Stith, Smith, Penn, Ward, & Tritt, 2004), this study contributes to the empirical literature by demonstrating individual correlates of physical, sexual, and psychological IPV during pregnancy and focusing specifically on those associated with patriarchal norms and values and a history of exposure to violence—correlates that are likely to be particularly salient in developing countries like Bangladesh.

Findings from this study revealed that the prevalence of physical, sexual, and psychological IPV during pregnancy was 35.2%, 18.5%, and 65.0%, respectively. As with other studies, the overlap of physical and psychological IPV was the most common joint occurrence (Ludermir, Lewis, Valongueiro, de Araújo, & Araya, 2010; Silva, Ludermir, de Araujo, & Valongueiro, 2011). This is not surprising as we know that physical IPV is generally accompanied by a threat, humiliation, and controlling behaviors (Abeya, Afework, & Yalew, 2011). These findings have importance for clinical implications, which are discussed below.

Contrary to findings from studies in the United States and other developed countries about the relationship between sociodemographic variables and IPV during pregnancy (Datner et al., 2007; Perales et al., 2009), the present study found no significant difference in age, education, family income, family structure, place of residence, and number of children, with the exception of age for sexual IPV. These results suggest that IPV in Bangladesh can occur in all segments of society regardless of age, education, and income, which accords with past research (Bağcıoğlu, Vural, Karababa, Akşin, & Sele, 2014; Pool, Otopiri, Owusu-Dabo, de Jonge, & Agyemang, 2013). Other studies have also found that socioeconomic status has minimal influence particularly for women in low-income countries and in patriarchal societies, and ultimately does not impact the likelihood of IPV victimization during pregnancy (Hammoury, Khawaja, Mahfoud, Afifi, & Madi, 2009). Some have suggested that, particularly in developing contexts, the psycho-socio-cultural characteristics of individuals and families rather than socioeconomic and structural influences (e.g., residence) influence IPV victimization among pregnant women (Hammoury et al., 2009). Our focus on correlates reflective of patriarchal norms and values and early exposure to violence reveals this to be the case in Bangladesh.

Similar to the findings of prior studies (Antai, 2011; Taillieu & Brownridge, 2010), results from the present study indicated that husband's controlling behaviors increased the risk of physical, sexual, and psychological IPV during pregnancy. Evidence suggests that intimate male partners commonly use threats and psychological violence to maintain control over their female partners (M. P. Johnson, 2006). Furthermore, male partners who justify wife-beating to control and discipline their wife are more likely to be physically violent than those who believe wife-beating is not acceptable (K. B. Johnson & Das, 2009). The general perception of much of society in Bangladesh is that following marriage, a woman should be a perfect housewife and be loyal only to her husband. Extra-marital relationships are not acknowledged in Bangladeshi society (Schuler & Islam, 2008). Some men may want to control female sexuality and prevent predicted infidelity, and so may use violence as a controlling strategy (Buss & Duntley, 2011; Cousins & Gangestad, 2007), especially during pregnancy.

To further examine the influence of patriarchal norms and values, this study examined whether cultural ideals such as endorsement of traditional gender roles and women's decision-making autonomy have an influence on experiencing IPV during pregnancy. Women's conservative attitude towards traditional gender roles was found to be a risk factor for experiencing physical and psychological IPV during pregnancy in this study, which is in line with the broader IPV literature (Heise & Garcia-Moreno, 2002), but is rarely

evaluated as a determinant for IPV during pregnancy (Clark et al., 2009). A possible explanation may be that during pregnancy, physical exhaustion, reduced mobility, and a lack of physical and emotional availability may limit women's energy for her traditional duties as a homemaker, which frequently may lead to an increased risk of IPV (Taillieu & Brownridge, 2010). In addition, consistent with expectations and findings from other studies (Sambisa, Angeles, Lance, Naved, & Thornton, 2011), women's limited decision-making power was linked to increased likelihood of experiencing psychological IPV during pregnancy. A women's decision-making autonomy within the family reinforces her ability to combat any abusive situations or resist any disclaimer of her rights, thereby reducing her risk to be violated (Atkinson, Greenstein, & Lang, 2005). Women who have conservative attitudes toward traditional gender roles and possess less decision-making autonomy are more likely to be economically dependent on their male partners, making them susceptible to the husband's increased controlling behaviors and thereby, increase the vulnerability of experiencing IPV. Findings from the present study about traditional gender roles acceptance and women's decision-making autonomy reinforce the importance of challenging patriarchal norms and values by empowering women, both socially and economically, so that they can make independent family decisions and can recognize the risks IPV poses to themselves and their children.

Results further revealed that dowry demands at marriage, a relic of early patriarchal arrangements, were significantly associated with sexual IPV during pregnancy, but not physical and psychological IPV. It is not clear why this particular correlate is only associated with sexual IPV for this sample. Whereas, other evidence shows that marriage involving dowry demands are positively associated with IPV during pregnancy in rural areas of Bangladesh (Naved & Persson, 2008) and India (Peedicayil et al., 2004). Further research is warranted to enhance understanding of this finding and to ascertain the pathway through which dowry harassment influences sexual IPV among women of Bangladesh.

Consistent with past research (McMahon & Armstrong, 2012; Peedicayil et al., 2004), findings from this study suggest that adequate social support from friends, family, and significant others is associated with a lower risk of experiencing IPV during pregnancy compared with their having low social support. Prior research showed that women who experienced IPV during pregnancy reported being socially isolated from family, friends, and other social support systems by their male partners due to partners' jealousy of other close relationships (Bacchus, Mezey, & Bewley, 2006), and they also reported lower levels of social support from both partners and their families compared with nonvictims (Heaman, 2005). This social isolation may be

done deliberately to curtail a pregnant woman's social support networks in order to make her entirely dependent on the male partner (Taillieu & Brownridge, 2010) in an effort to reinforce his patriarchal dominance. It is also possible that women prone to social isolation would be targeted by, or attracted to abusive men. Regardless, it is a clear risk factor among the women in our sample. Furthermore, high self-esteem has emerged as a protective factor against physical and psychological IPV during pregnancy, which is in line with past studies (Loft Abadi, Ghazinour, Nojomi, & Richter, 2012). A possible explanation may be that a woman's lowered sense of self-esteem creates a feeling of guilt, shame, unworthiness, helplessness, powerlessness, and a negative perception of the self that ultimately increase her frustration, depression, motivational impairment of problem-solving ability, and isolation from others (Deyessa et al., 2009). Consequently, she may no longer enjoy her interaction with her partner and others (Stewart, 2007), suggesting that a lowered sense of self-esteem makes women unworthy of being loved by others which in turn creates a woman's vulnerability to experience IPV (C. C. Bell & Mattis, 2000).

Evidence shows that a history of childhood victimization (witness or experience) makes women more susceptible to experiencing IPV during pregnancy (Jasinski, 2004; Taillieu & Brownridge, 2010). In the present study, women exposed to any childhood violence were three times more likely to report experiencing psychological IPV during pregnancy. This may happen due to poor emotional development or as a consequence of learning strategies to cope with conflict (Naved & Persson, 2005). However, inconsistent with the previous studies (K. M. Bell & Naugle, 2008; Clark et al., 2009), witnessing of parental violence was not a significant risk factor for experiencing any type of IPV during pregnancy in our study. This inconsistent finding might be partially explained by "the perception of father to mother violence as disciplining" (Karakurt, Keiley, & Posada, 2013, p. 572). Further research is needed to understand why witnessing of parental violence was not significant in experiencing IPV during pregnancy among women in Bangladesh.

Exploring IPV among married women in Bangladesh around the time of pregnancy has required a comprehensive and rigorous methodological approach. The current study used a rigorous sampling design and carefully crafted systematic interviews with respondents under safe conditions where almost all of the respondents were alone. An important component of this study illustrating its robustness has been the inclusion of several benchmarked measures that gauge varying forms of IPV as well as a range of important risks factors. The inclusion of several benchmarked measures ensures that the results drawn from Bangladesh can be compared to other

studies undertaken in both developed and developing nations. Nevertheless, the findings should be interpreted while acknowledging several limitations to the study. It was a retrospective study and the findings may be influenced by recall bias. The exclusion of women accompanied by their husbands may not have represented the actual scenario of severe cases of IPV. However, this study serves as a foundation for recommending future research on this important issue to explore how IPV victimization around the time of pregnancy affects the health and wellbeing of the women and children of Bangladesh.

While we believe the findings have broad implications, we also recognize their specific implications for Bangladeshi women. Clearly, the experiences of Bangladeshi women are unique, as evidenced by their particularly high rates of exposure to IPV. Our findings suggest that this exposure continues through pregnancy and that the prevalent patriarchal norms and values that persist in Bangladesh are key to understanding women's IPV experiences in this context. Worldwide, women's experiences are diverse, as is their exposure to patriarchal norms and values. We would not expect these findings to be perfectly replicated in other settings, particularly in more developed contexts where women's agency and opportunities are more expansive, and cultural norms and values tend to prioritize gender equality rather than male privilege.

Conclusion

A key outcome from this study is the consistently high levels of exposure to varying forms of IPV for women during pregnancy as well as the consistent findings related to various risks factors. With each comparison and multivariate model, the results consistently show high levels of female vulnerability and male privilege. The consistency of these findings illustrates and confirms the role of male power, control, and entitlement over female partners in perpetrating IPV. These results have clear and pressing implications for both the health and safety of pregnant women in Bangladesh as well as the associated risks for their developing children. The findings also emphasize the importance of formulating policies on promoting a balanced male–female role in family and community, engaging women in family- and community-level economic activities, and facilitating women's increased access to instrumental, material, and social resources because these initiatives have the added value of increasing women's social support network, their self-esteem, and autonomy. To sum up, clear policy and practice responses are required to better safeguard the health and wellbeing of women and their children while recognizing the important work to be undertaken in relation to the wider cultural context of gendered relationships in Bangladesh.

Authors' Note

M.J.I., P.M., L.B., and K.B. planned the study, conceptualized the aim of the study, and finalized the study design. M.J.I. conducted data collection and data analysis and prepared the manuscript. P.M., L.B., and K.B. contributed to analysis and interpretation of data and to critical revisions of the article.

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