

Original Article

Exploring the impact of intimate partner violence on children's behavior in urban slums of Dhaka City, BangladeshTamanna Kalim¹, Jena Derakhshani-Hamadani², Russell Kabir^{3*}, Md. Anwarul Azim-Majumader⁴¹ Department of Family Practice, School of Medicine, University of British Columbia, Vancouver, Canada² Child Development Unit, International Center for Diarrheal Disease Research, Dhaka, Bangladesh³ Department of Medical Science and Public Health, School of Medical Science, Anglia Ruskin University, Essex, UK⁴ Director of Medical Education, School of Medical Sciences, The University of West Indies, Cave Hill, Barbados, West Indies

ARTICLE INFO

Received 11.08.2017
 Revised 27.08.2017
 Accepted 03.09.2017
 Published 01.10.2017

Key words:

Intimate partner violence;
 Children;
 Bangladesh;
 Mothers;
 Poverty areas

ABSTRACT

Background & Aim: Intimate partner violence (IPV) is highly prevalent in Bangladesh especially in lower socioeconomic groups. The aim of this research was to identify the prevalence and nature of IPV and determine its association with young children's behavior in urban slums.

Methods & Materials: This cross-sectional survey was conducted on married women with at least one child aged 4-5 years and living with the father of that child (n = 182). The socioeconomic status (SES) questionnaire, the Strengths and Difficulties Questionnaire (SDQ), and IPV questionnaire were used to collect data. The SDQ consists of 4 subscales of difficulties and 1 prosocial subscale. Bivariate correlations and multiple regression analysis were conducted to determine the association of SDQ with IPV.

Results: Almost 90% of women had at least once experienced any type of IPV. Some married women had experienced all types of physical, emotional, and sexual violence by their husband throughout their married life. Children, whose mothers experienced IPV, had higher scores of total difficulties on SDQ as well as emotional symptoms and conduct problems compared to those whose mothers did not experience IPV. The study showed that 1 unit increase in emotional violence by the intimate partner independently led to the increase of the total difficulties score by 0.60 units and the emotional symptom problems by 0.28 units ($P \leq 0.05$). The regression models showed the 1 unit increase in physical violence by the intimate partner predicted an increase of 0.59 units in the child's total difficulties scores ($P \leq 0.05$).

Conclusion: IPV is widely prevalent in Bangladesh and affects children's behavior. The implications for developing policy to educate and intervene are immense and emphasis must be placed on the age appropriate development of exposed children.

Introduction

Intimate partner violence (IPV) is considered a major public health issue (1) and is the most common form of violence experienced by women worldwide (2). Previously, IPV was treated as a

private family matter. However, for the last 30 years, IPV has been identified as a major social problem that includes both physical and mental health consequences and, in some cases, leads to psychological and criminal issues (3). IPV has serious, negative consequences for early age in children in regard to emotional, behavioral, and interpersonal functioning (4). A strong association has been observed between mothers' depressive symptoms (as a result of IPV) and child behavioral and emotional difficulties;

* Corresponding Author: Russell Kabir, Postal Address: Senior Lecturer, Department of Medical Science and Public Health, School of Medical Sciences, Anglia Ruskin University, Chelmsford, Essex, CM11SQ, UK
 Email: russell.kabir@anglia.ac.uk

maternal depressive symptoms increased the risk of child externalizing and internalizing problems (5). Exposure to IPV refers to children seeing, hearing or being aware of violence against one parent figure perpetrated by another parent figure (6). A study of co-occurrence among Hong Kong Chinese families showed that children exposed to IPV were at a higher risk of neglect, corporal punishment, and physical maltreatment by their parents than children who were not exposed to IPV, even when demographic factors were controlled for (7).

Extensive research found the association of IPV with experiences of miscarriage, fetal and infant death, and child morbidity like acute respiratory tract infection, diarrhea, and asthma among the South Asian women of child bearing age (8). Moreover, one study showed that IPV also results in child stunting and mortality in developing countries (9). Several longitudinal studies proved that there are associations between child and subsequent adult mental health. Child reports of witnessed IPV are associated with increased suicidal ideation (10). Two cohort studies showed that having witnessed IPV during childhood leads to more mental health symptoms as well as depression, anxiety, and anger (11, 12). Another study showed that mothers who were exposed to direct violence were more likely to project their own frustration or guilt onto their children (13). About 52% of women reported having experienced physical and sexual IPV in Bangladesh (14). Mothers of young children and those living in smaller households were more likely to be abused by their intimate partner than women living in larger households (8). Violence against women affects their empowerment and health seeking behavior (15) and poor attainment of primary education and lack of employment seem to be a hindrance in women's empowerment in Bangladesh (16). A study on physical violence against women in slum and non-slum areas of urban Bangladesh found higher prevalence of past-year physical spousal violence in the slums (35%) than in non-slum areas (20%) (17). This study confirmed that physical spousal abuse is highly prevalent in urban slums with low socioeconomic and

cultural status and demonstrated the seriousness of this multifaceted phenomenon as a social and public health issue like in other South Asian countries. In another study, 55% of husbands reported perpetrating physical IPV against their wives at some point in their married lives, 20% reported at least once perpetrating sexual IPV, and 60% reported at least once perpetrating physical or sexual IPV (18). The findings of this study also showed that men residing in the slums had a greater likelihood, than those residing in non-slum areas, of perpetrating lifetime/past-year physical IPV or any lifetime (physical or sexual) IPV.

Considering the above facts, the aim of the present study was to investigate the relationship of IPV with young children's behavior (controlling other confounders) in the context of slum areas, where the majority of the population is characterized by low socioeconomic status. IPV causes the incapacitation of mothers, and direct maltreatment and neglect of children including ignoring, slapping, threatening, and sometimes over protection. It also reduces the parenting capacity and breast-feeding as well as adequate nutritional food intake of the abused mothers, which may result in cognitive, behavioral, and emotional impairment, homicide, suicide, disability, and aggressive and rule breaking behavior.

Methods

A cross-sectional study design was used. The study population consisted of married women with at least 1 child aged 4 or 5 years. Married mothers of at least 1 child aged 4 or 5 years with mild, moderate, or severe disabilities, and mothers who had separated from their husbands for more than 1 year, lost the father of their child before birth, and did not live with the child's biological father, but lived with their second husband were excluded from the study. The study was conducted in Korail Slum located at Mohakhali, Dhaka, Bangladesh. According to Dushtha Shasthya Kendra (19), Korail Slum is one of the biggest slums in Dhaka city, located near the Gulshan-Banani Lake. It is estimated that almost 20,000 families reside there with a

population of 45,000. The majority of the people have come from disaster-prone areas where natural calamities such as flood, tornado, and river erosion are very common. They have mostly come from Mymensingh, Sherpur, and Barisal, Bangladesh. The reason for their migration is natural disasters, lack of employment, and food insecurity in their villages. The main occupations of the residents include day laborer, domestic helper, rickshaw puller, push cart driver, hawker, vegetable seller, and ready-made garments worker which are mainly informal and sometimes irregular (19).

Convenience sampling technique was used for data collection in this study. The initial plan was to collect the data using simple random sampling technique. However, the study areas had no existing household numbers and there was no appropriate list of people. BRAC pre-primary schools and other local NGO schools (Intervida and Friendship) who had worked for the education program in the slum areas for a long time also did not have a list of children aged 4 and 5 years. Some household numbers had been given with a white chalk by BRAC for the baseline survey (before starting the project work), but that had been erased. Due to the lack of a list of the children, it was not possible to use simple random sampling technique. Therefore, non-probability community-based convenience sampling technique was used in the current study. For this research, 3 main delivery centers of BRAC Manoshi Project located in 3 parts of Korail Slum were studied. These 3 centers cover the 6 parts of Korail Slum (Bou bazaar, Jamai bazaar, Beltola, Khamarbari, Ershadbosti, and T and T ground). Only 1 woman in each household was interviewed; if there was more than 1 eligible respondent, 1 was randomly selected. The sample size of this research was calculated using the following formula:

$$n = \frac{Z^2 q}{r^2 p}$$

where, n = required sample size, Z = 95% confidence interval which is 1.96, ρ = proportions of the target population to have a characteristic which is 50%, q = 1-p, and

r = relative error which is assumed to be 7%. Hence, the sample size of the study was 182.

Data were collected from 15th November 2011 to 31st December 2011. Pre-testing was conducted before beginning data collection. The interview consisted of 4 parts:

I. Socioeconomic status questionnaire: The socioeconomic status (SES) questionnaire included questions on age, sex of the child, education and occupation of parents, number of household members, number of children in the family, birth order of the child, and assets of the family as it might have great influence on the children's behavior and intimate partner.

II. Strengths and Difficulties Questionnaire: Goodman et al. used the Strengths and Difficulties Questionnaire (SDQ) to describe the behavior of children (20). The Bangla version of the questionnaire was adopted from the Child Development Unit, International Center for Diarrheal Disease Research (ICDDR), Bangladesh. The SDQ has been validated and used in many countries including Bangladesh. For this study, the SDQ for 4 and 5 year-olds were used. The scale consists of 25 questions on the child's behavior, and these are divided into the 5 subscales of emotional symptoms (5 items), conduct problems (5 items), hyperactivity/inattention (5 items), peer relationship (5 items), and prosocial behavior (5 items). The score of each question ranges from 0 to 2; therefore, in each subscale, a range of 0-10 scores were possible. The prosocial subscale was positively coded, and therefore, higher scores meant better prosocial behavior, whereas the other 4 subscales were negatively coded and higher scores meant more difficulties. A total SDQ score was produced by calculating the sum of the scores of the 4 difficulties subscales.

III. Intimate Partner Violence questionnaire: The Intimate Partner Violence (IPV) questionnaire, adopted from the World Health Organization (WHO), was translated and validated by the Social and Behavior Sciences Unit, Public Health Sciences Division of the ICDDR to identify the presence and nature of IPV as it relates to women and also to children using standard typologies (21). The questions about the experience of physical violence were

taken from the Conflict Tactics Scale. Physical violence was considered if it included items such as slapping, pushing, punching, hitting or kicking, dragging, beating up, choking, burning, or some other physical harm by the husband. To explore sexual violence, the women were asked whether they were physically forced by their husbands to have sexual intercourse when they did not want to. The respondents were also asked if they were ever insulted, humiliated, intimidated, or threatened by their husbands. Positive response to any of these violence questions from the respondent was considered as an indication of exposure to that form of violence.

IV. Anthropometry: The children's and mothers' height and weight were measured using a digital weighing machine and manual height scale. One of the hypotheses was that women eat less nutritious food because of IPV, and by measuring women's anthropometry we could show whether it was true. Another hypothesis was that children, whose mothers were exposed to violence, might have lower body mass index (BMI) because their mothers might not be able to attend to their children's feeding.

For this study, the outcome variable is the total difficulties scores of the children combining the subscales of difficulties (emotional symptom problems, conduct problems, peer problems, and hyperactivity) and strength (prosocial activity). Each item had the 3 answers 'Not True', 'Somewhat True', and 'Certainly True' which received scores of 0-2, 'not true' received a score of 0 or 2 depending on the template. The total score of each of the subscales was obtained by adding the scores of the 5 items which compose each subscale. Thus, a score ranging from 0 to 10 was generated. The scores in the subscales of hyperactivity, emotional problems, conduct, and relationship were added generating a total score of difficulties ranging from 0 to 40. Although SDQ scores are often used as continuous variables, it is convenient to classify scores as normal, borderline, and abnormal. Therefore, the total SDQ score (continuous variable) was computed and the respondents were divided into 3 categories (normal, abnormal, and borderline) based on their score. Then, the dichotomous

variable was constructed by considering the normal and borderline as normal and abnormal. The total difficulties score was calculated by adding up the scores of the subscales except the prosocial scale and the result was rounded to the nearest whole number as shown below:

$$\text{Total Score} = \text{Emotional Scale} + \text{Conduct Scale} + \text{Hyperactivity Scale} + \text{Peer Problem Scale}$$

The study protocol followed all the rules and procedure for the approval of the Ethical Review Board. The study was commenced only after obtaining the permission of the Ethical Review Board. For the sake of confidentiality, the study interviews were conducted in private and in a nonjudgmental manner. The purpose of the study was explained to the participants in the local language and "informed written and verbal consent" was obtained from them before data collection. Respondents could withdraw at any point of the interview. Anonymity and confidentiality were maintained strictly for this study. The data were collected anonymously using code numbers in each questionnaire and the collected data were not shown to any other people and were kept in a secure place to which only the researcher had the access.

Results

Table 1 presents the socio-demographic characteristics of the respondents. Boys comprised almost 48.4% of the population and 46% were 4 years old. The mean BMI of the children was 13.67 ± 1.61 and the maximum and minimum BMI were 18.1 and 9.0, respectively. The mothers' age ranged from 17 to 40 years with a mean of 26.26 ± 5.07 . Most of the mothers (64.8%) did not complete their primary education and 65.4% were housewives.

The mean BMI of the mothers was 20.85 ± 3.50 . More than half of the fathers had not completed the 5 years of primary education and less than a quarter (23.1%) had passed primary school. On average, there were 5 ± 1.45 members in a household. Most families had 2 children, but 1 family had 8 children. On average, most children were the 2nd born child; the mean birth order was 2.09 ± 1.33 .

Table 1. Socio-demographic characteristics of the respondents

Variables	Categories	Values	
Child	Age (year)	4 years (%)	46.2
		5 years (%)	53.8
	Sex	Female (%)	51.6
		Male (%)	48.4
	BMI (kg/m ²)	Mean ± SD	13.67 ± 1.61
		Median (Interquartile range)	14 (12.78, 14.85)
		Minimum	9.0
Maximum		18.1	
Mother	Age (year)	Mean ± SD	26.26 ± 5.07
		Median (Interquartile range)	25 (22.00, 30.00)
		Minimum	17.0
		Maximum	40.0
	Education	Mean ± SD	2.52 ± 2.76
		Median (Interquartile range)	1.5 (0.00, 5.00)
		Level of education < 5	64.8
		Primary completed	24.7
		Level of education > 5	10.4
	Occupation	Housewife (%)	65.4
		Service (%)	34.6
Father	Education	Mean ± SD	3.21 ± 3.83
		Median (Interquartile range)	3 (0.00, 5.00)
		Level of education < 5 (%)	56.0
		Primary completed (%)	23.1
	Occupation	Level of education > 5 (%)	20.9
		Poor income (farmer/day laborer) (%)	69.2
		Small business, service (%)	30.8
Family Status	Number of family members	Mean ± SD	4.77 ± 1.45
		Median (Interquartile range)	5 (4.00, 5.25)
		Minimum	2
		Maximum	10
		Number of children	Mean ± SD
	Median (interquartile range)		2 (2.00, 3.00)
	Minimum		1
	Assets index	Maximum	8
		Mean ± SD	10.73 ± 0.58
		TV/Radio (%)	43.4
Fan (%)		88.5	
	Almirah/Showcase (%)	58.8	

Despite the sensitivity of the IPV questions, around 90% of women reported that they had at least once experienced any type of IPV (Table 2), either before or after the birth of their child. The rate of any kind of emotional violence was quite high (79.1%). Some married women had experienced all types of physical, emotional, and sexual violence by their husband throughout their married life. About 68% of respondents revealed that they had experienced sexual violence.

This study found that children whose mothers were exposed to physical or emotional violence were more likely to have abnormal scores in emotional symptoms and conduct

problems (Table 3). Children whose mothers experienced IPV had higher SDQ scores than those children whose mothers did not experience IPV. This study also showed that husbands who were more educated and had better occupations were less likely to perpetrate violence against their wives.

This study examined whether the prevalence of abnormal SDQ differed in relation to presence or absence of IPV. The chi-square test results showed that children whose mothers had experienced emotional or physical violence by their husbands had higher risk of abnormal emotional symptoms compared to the non-exposed group (Table 4). An experience of any

Table 2. Proportion of affirmative responses to different types of intimate partner violence

Intimate partner (husband) violence		Frequency (%)	Before child's birth	After child's birth
Experience of emotional violence	Insulted	132 (72.5)	47.8	63.7
	Humiliated	104 (57.1)	37.9	51.6
	Intimidated	116 (63.7)	44.5	55.5
	Threatened	71 (39.0)	30.2	32.4
Experience of physical violence	Slapped	117 (64.3)	45.6	51.1
	Pushing or scratching	114 (62.6)	45.6	49.5
	Punching or doing something that could hurt	64 (35.2)	27.5	28.6
	Kicked/ dragged/ bitten	61 (33.5)	24.7	27.5
	Try to choked or burn on purpose	35 (19.2)	16.5	14.8
	Other harms	46.7 (85.0)	33.5	36.0
Experience of sexual violence		125 (68.7)	57.7	63.7
Experience of any type of physical violence		126 (69.2)	-	-
Experience of any type of emotional violence		144 (79.1)	-	-
Experience of any type of violence		163 (89.6)	-	-

kind of violence or physical violence had a positive association with children's conduct problems and total SDQ scores. Emotional violence towards mothers increased children's emotional symptom, conduct problems, and total SDQ scores. Sexual violence towards mothers by their intimate partner was also associated with children's emotional symptom problems and total SDQ scores.

A series of multiple linear regressions was conducted to explore the effect of "total numbers of IPV", "emotional IPV", "physical IPV", and "sexual IPV" on "total difficulties score", "emotional symptoms", and "conduct problems". Interestingly, positive relationship were found for all of these models except the model of sexual IPV with conduct problem (Table 5).

The findings of these models indicated that an increased unit of total numbers of IPV witnessing increased children's total difficulties score by 0.34 units, the emotional symptom problems by 0.14 units, and conduct problems by 0.12 units, which was statistically significant at 0.01 level.

Discussion

To the authors' best knowledge, this was the first study to explore the association between IPV and young children's behavior in Bangladesh. The results of this community-based study showed that most of the married women were exposed to various types of violence by their husbands in their marital life. This study showed that children whose mothers were exposed to physical or emotional violence were more likely to have abnormal scores in emotional symptoms and conduct problems. Children whose mothers experienced IPV had higher SDQ scores than those children whose mothers did not experience IPV.

The sample consisted primarily of low-income families; most parents had less than 5 years of education and poor housing conditions. Although there is some evidence that boys are more vulnerable than girls to the effects of family violence (13, 22), no significant differences were found between boys and girls regarding IPV or SDQ in the current study. However, this study showed that girls had better prosocial behavior than the boys did.

Table 3. Correlation of strengths and difficulties scores with intimate partner violence (IPV)[#]

	Experienced any type of IPV	Experienced any type of physical IPV	Experienced any type of emotional IPV	Experienced sexual IPV
Emotional Symptoms	0.20**	0.21**	0.18**	0.18*
Conduct problem	0.20**	0.19**	0.18*	0.07
Peer problem	0.08	0.11	0.04	0.11
Hyperactivity	0.08	-0.01	0.02	-0.01
Prosocial	-0.01	0.003	-0.01	0.003
Total SDQ	0.22**	0.25**	0.17*	0.15*

IPV: Intimate partner violence; SDQ: Strengths and Difficulties Questionnaire; [#] = Spearman rank correlation; *P < 0.05, **P < 0.01

Table 4. Abnormal Strength and Difficulties subscales and experience of intimate partner violence (IPV)*

Abnormal	Total IPV		P-value
	Not exposed to IPV	Exposed to IPV	
Emotional Symptoms	10.5	42.9	0.004
Conduct problem	36.8	52.1	0.15
Hyperactivity	10.5	12.3	0.59
Peer problem	36.8	52.8	0.14
Prosocial activity	10.5	16.0	0.41
Total SDQ	10.5	50.9	0.001
Physical IPV			
Emotional Symptoms	30.4	43.7	0.06
Conduct problem	35.7	57.1	0.006
Hyperactivity	7.1	14.3	0.13
Peer problem	44.6	54.0	0.16
Prosocial activity	12.5	16.7	0.32
Total SDQ	33.9	52.4	0.02
Emotional IPV			
Emotional Symptoms	21.1	44.4	0.006
Conduct problem	36.8	54.2	0.043
Hyperactivity	10.5	12.5	0.49
Peer problem	42.1	53.5	0.14
Prosocial activity	15.8	15.3	0.56
Total SDQ	23.7	52.8	0.001
Sexual IPV			
Emotional Symptoms	24.6	46.4	0.004
Conduct problem	47.4	52.0	0.34
Hyperactivity	15.8	10.4	0.34
Peer problem	43.9	54.4	0.12
Prosocial activity	15.8	15.2	0.54
Total SDQ	31.6	53.6	0.004

IPV: Intimate partner violence; SDQ: Strengths and Difficulties Questionnaire; *Chi-square test

In this study, insulting was the most common emotional violence and the pattern of abuse was similar with other studies (17). Severe physical violence in this population was also similar to that reported in an earlier study in Bangladesh (23).

The present study showed that around 70% of women reported an experience of sexual and any type of physical abuse by their husband. This result is higher than that reported in another study (24) in Bangladesh, which showed that about two fifths of married, reproductive aged women reported having been physically abused

by their husbands at any point in time in rural and urban Bangladesh.

Similarly, another multi-country study reported lower rates of exposure to within-marriage sexual violence among rural (50%) and urban (37%) women (25). This result is, however, consistent with another study in the USA, where 64% of women reported being raped, physically assaulted, or stalked since age 18 by a current or former husband/partner every year (26). Hence, the prevalence of IPV in this population was not different from that of a developed country like USA.

Table 5. Simple Linear Regression of the Strengths and Difficulties Questionnaire and Intimate partner violence Strength and Difficulties Scores

Predictors	Total Difficulties Score		Emotional symptom problem		Conduct problems	
	B ± SE (95% CI)	P-value	B ± SE (95% CI)	P-value	B ± SE (95% CI)	P-value
Total numbers of IPV	0.34 ± 0.1 (0.15, 0.53)	0.001	0.14 ± 0.04 (0.06, 0.23)	0.001	0.12 ± 0.04 (0.04, 0.20)	0.003
Emotional IPV	0.60 ± 0.24 (0.12, 1.1)	0.014	0.28 ± 0.11 (0.07, 0.50)	0.008	0.23 ± 0.10 (0.04, 0.43)	0.020
Physical IPV	0.59 ± 0.16 (0.28, 0.19)	<0.001	0.22 ± 0.07 (0.07, 0.36)	0.003	0.21 ± 0.07 (0.08, 0.34)	0.002
Sexual IPV	1.60 ± 0.80 (0.02, 3.20)	0.05	0.92 ± 0.35 (0.22, 1.16)	0.010	0.34 ± 0.33 (-0.32, 0.98)	0.310

IPV: Intimate partner violence; SDQ: Strengths and Difficulties Questionnaire; B: Regression coefficient; SE: Standard error

Half of the total children had abnormal scores in peer problem and conduct problem scales. Around 40% of children had emotional symptom problem and around 50% of the total children were categorized as abnormal in terms of their total difficulties score. This result is not consistent with another study in Brazil where school children obtained high scores; 30.8% abnormal emotional symptoms, 17.7% conduct disorders, 16.8% hyperactivity, 14% peer relationships, and 18.7% in the total scores (27). Furthermore, it was found that in Bangladesh, about 8.6% of the children obtained high scores (score ≥ 5) in emotional symptoms, 3.1% in conduct problems, 6.2% in hyperactivity, and 13.0% in the total SDQ score (28). The difference in findings of the two studies is due to the difference in the cut-off points used for abnormal behavior. In the United Kingdom, an abnormal total score was observed in 10.5% of the subjects (20).

This study explored whether children whose mothers are exposed to any kind of IPV are at higher risk of presentation of emotional symptom problems at a young age compared to those children whose mothers are not exposed to any kind of violence. The above results are highly consistent with some other researches. For example, psychological research studies suggested that all types of family violence are associated with diverse psychological problems including aggression, anxiety, depression, aggressive peer relationships, poor school performance, and social emotional difficulties in young children (13, 29-34). Additionally, 2 recent meta-analyses examined 118 studies and reported that there is a significant association between exposure to family violence and child behavior problems, and that witnesses of violence had worse outcomes than non-witnesses (13, 32).

Some studies also noted that the experience of violence is strongly associated with adverse outcomes for children's development (34-37). It was also found that marital conflict is the strongest risk factor for behavioral problems and is significantly associated with externalizing (conduct problems + hyperactivity symptoms) and internalizing (emotional and peer symptom problems) behaviors and social, attention, and

thought problems of 5-year-old children (38). Another study mentioned that higher levels of maternal depressive symptoms were expected to lead to over-reporting of child problems (5). The same study mentioned that maternal depression (as the effect of IPV) was associated with both externalizing and internalizing behavior problems in young boys. Compared to previous studies, a higher rate of IPV was found in this study. Economic crisis, number of family members, number of children, employment problems, and continuous rising of daily expenditure might be some of the causes of this finding.

Another reason could be that this study was only conducted in one slum, where women were more vulnerable and most of the women did not have the right of household decision-making. Consumption of alcohol and drugs could be another reason. We know that the rate of abuse is higher in slum areas than non-slum areas among the poorest strata (17). Social norms and conservative ideas regarding gender role beliefs might be another cause of the higher response rate of IPV. Wife-beating norms are a strong risk factor for physical violence or any type of partner violence in urban slums as this is a man-dominating, patriarchal society where men are always in hierarchical gender positions (17). Types and frequencies of IPV were higher after the birth of the child than before birth. The husbands who are better educated may experience some changes in their thinking, behavior, and attitude, so they are less likely to abuse their wives. Mothers' depression, trauma, and experience of violence have a negative impact on children who are witnessing domestic violence, and it even has an impact on those children who are not witnessing violence. Misinterpretation and misapplication of religious beliefs may lead to domestic violence against women, which hampers the development of children. All the four instruments, by which the data were collected, were reliable, and valid in the context of Bangladesh. Repeated administration of these instruments under similar conditions and for similar objectives will give consistent results. However, the instruments of this study can also be used in different times under different conditions. A strong correlation

was found within the subscales of SDQ and within the types of IPV, which showed the internal consistency of the instruments.

Hence, extraneous or confounding variables did not affect the results, which showed the internal validity of the study. This study finding can be applied to the other urban slums of Bangladesh, beyond the controlled setting of the research. However, these findings may not be generalized to the middle class or a higher socioeconomic context, but the findings are generalizable to other urban slums with low socioeconomic status and may also be applied to other developing countries of the world.

Conclusion

Since IPV is widely prevalent in Bangladesh, if it affects children's behavior, the implications for developing policy to intervene are immense and emphasis on age appropriate development for those children needs to be strong. There should be an opportunity to intervene in the cycle of violence and provide an effective response to IPV. Nevertheless, the education of girls, female literacy programs, and women's empowerment through their involvement in any kind of income generating work can reduce the abuse and improve women's status at the household level, so more researches can be focused on this issue.

Conflict of Interests

Authors have no conflict of interests.

Acknowledgments

The authors wish to thank the BRAC Health Program, field staff (Korail Slum) of BRAC Manushi Project, other NGO staff who worked in Korail Slum, and the slum dwellers.

References

1. Johnston HB, Naved RT. Spousal violence in Bangladesh: A call for a public-health response. *J Health Popul Nutr* 2008; 26(3): 366-77.
2. World Health Organization. Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva, Switzerland: WHO; 2013.
3. Klostermann K, Kelley ML. Alcoholism and intimate partner violence: Effects on children's psychosocial adjustment. *Int J Environ Res Public Health* 2009; 6(12): 3156-68.
4. Huth-Bocks AC, Levendosky AA, Semel MA. The direct and indirect effects of domestic violence on young children's intellectual functioning. *J Fam Violence* 2001; 16(3): 269-90.
5. Gartstein MA, Bridgett DJ, Dishion TJ, Kaufman NK. Depressed mood and maternal report of child behavior problems: Another look at the depression-distortion hypothesis. *J Appl Dev Psychol* 2009; 30(2): 149-60.
6. Baker LL, Jaffe PG, Ashbourne L. Children exposed to domestic violence: An Early childhood educator's handbook to increase understanding and improve community responses. London, UK: Centre for Children & Families in the Justice System; 2002.
7. Chan KL. Children exposed to child maltreatment and intimate partner violence: A study of co-occurrence among Hong Kong Chinese families. *Child Abuse Negl* 2011; 35(7): 532-42.
8. Silverman JG, Decker MR, Gupta J, Kapur N, Raj A, Naved RT. Maternal experiences of intimate partner violence and child morbidity in Bangladesh: Evidence from a national Bangladeshi sample. *Arch Pediatr Adolesc Med* 2009; 163(8): 700-5.
9. Rico E, Fenn B, Abramsky T, Watts C. Associations between maternal experiences of intimate partner violence and child nutrition and mortality: Findings from Demographic and Health Surveys in Egypt, Honduras, Kenya, Malawi and Rwanda. *J Epidemiol Community Health* 2011; 65(4): 360-7.
10. Thompson R, Briggs E, English DJ, Dubowitz H, Lee LC, Brody K, et al. Suicidal ideation among 8-year-olds who are maltreated and at risk: Findings from the Longscan studies. *Child Maltreat* 2005; 10(1): 26-36.
11. Dubowitz H, Black MM, Kerr MA, Hussey JM, Morrel TM, Everson MD, et al. Type and timing of mothers' victimization: effects on

- mothers and children. *Pediatrics* 2001; 107(4): 728-35.
12. Johnson RM, Kotch JB, Catellier DJ, Winsor JR, Dufort V, Hunter W, et al. Adverse behavioral and emotional outcomes from child abuse and witnessed violence. *Child Maltreat* 2002; 7(3): 179-86.
 13. Sternberg KJ, Baradaran LP, Abbott CB, Lamb ME, Guterman E. Type of violence, age, and gender differences in the effects of family violence on children's behavior problems: A mega-analysis. *Developmental Review* 2006; 26(1): 89-112.
 14. Anand E, Unisa S, Singh J. Intimate partner violence and unintended pregnancy among adolescent and young adult married women in south Asia. *J Biosoc Sci* 2017; 49(2): 206-21.
 15. Ferdous N, Kabir R, Khan HT, Khan Chowdhury MR. Exploring the relationship of Domestic violence on Health Seeking behavior and Empowerment of Women in Pakistan. *Epidemiol Biostat Public Health* 2017; 14(1): 1-8.
 16. Kabir R, Rahman S, Monte-Serrat DM, Yasir Arafat SM. Exploring the decision-making power of bangladeshi women of reproductive age: Results from a national survey. *South east Asia Journal of Medical Sciences* 2017; 1(1): 4-8.
 17. Sambisa W, Angeles G, Lance PM, Naved RT, Thornton J. Prevalence and correlates of physical spousal violence against women in slum and nonslum areas of urban Bangladesh. *J Interpers Violence* 2011; 26(13): 2592-618.
 18. Sambisa W, Angeles G, Lance PM, Naved RT, Curtis SL. Physical and sexual abuse of wives in urban Bangladesh: Husbands' reports. *Stud Fam Plann* 2010; 41(3): 165-78.
 19. Operational Context study: An assessment of Bangladesh urban slum situation [Report]. Dhaka, Bangladesh: Dushtha Shasthya Kendra (DSK); 2009.
 20. Goodman R, Ford T, Simmons H, Gatward R, Meltzer H. Using the strengths and difficulties questionnaire (SDQ) to screen for child psychiatric disorders in a community sample. *Br J Psychiatry* 2000; 177: 534-9.
 21. Naved RT, Akhtar N. Spousal violence against women and suicidal ideation in Bangladesh. *Womens Health Issues* 2008; 18(6): 442-52.
 22. Jaffe P, Wolfe D, Wilson SK, Zak L. Family violence and child adjustment: A comparative analysis for girls' and boys' behavioral symptoms. *Am J Psychiatry* 1986; 143: 74-7.
 23. Naved RT, Persson LA. Factors associated with spousal physical violence against women in Bangladesh. *Stud Fam Plann* 2005; 36(4): 289-300.
 24. Naved RT, Azim S, Bhuiya A, Persson LA. Physical violence by husbands: Magnitude, disclosure and help-seeking behavior of women in Bangladesh. *Soc Sci Med* 2006; 62(12): 2917-29.
 25. World Health Organization. Sexual and reproductive health: WHO Multi-country study on women's health and domestic violence against women [Online]. [cited 2005]; Available from: URL: http://www.who.int/reproductivehealth/topics/violence/mc_study/en
 26. Tjaden PG, Thoennes N. Extent, nature, and consequences of intimate partner violence. Washington, DC: National Institute of Justice; 2000.
 27. Cury CR, Golfeto JH. Strengths and difficulties questionnaire (SDQ): A study of school children in Ribeirao Preto. *Rev Bras Psiquiatr* 2003; 25(3): 139-45.
 28. Mullick MS, Goodman R. Questionnaire screening for mental health problems in Bangladeshi children: A preliminary study. *Soc Psychiatry Psychiatr Epidemiol* 2001; 36(2): 94-9.
 29. Cicche'i'i DA, Toth SL. Child maltreatment and attachment organization: Implication and intervention. In: Goldberg S, Muir R, Kerr J, Editors. *Attachment theory: Social, developmental, and clinical perspectives*. London, UK: Routledge; 2013. p. 279.
 30. Edleson JL. Should childhood exposure to adult domestic violence be defined as child maltreatment under the law? [Online]. [cited 2004]; Available from: URL: <https://calio.dspace.org/handle/11212/1724>
 31. Jaffe PG, Wolfe DA, Wilson SK. *Children of battered women*. Thousand Oaks, CA: SAGE Publications p. 8-29; 1990.

32. Kitzmann KM, Gaylord NK, Holt AR, Kenny ED. Child witnesses to domestic violence: A meta-analytic review. *J Consult Clin Psychol* 2003; 71(2): 339-52.
33. Kolbo JR, Blakely EH, Engleman D. Children who witness domestic violence: A review of empirical literature. *J Interpers Violence* 1996; 11(2): 281-93.
34. Margolin G, Gordis EB. Children's exposure to violence in the family and community. *Curr Dir Psychol Sci* 2004; 13(4): 152-5.
35. Zeanah CH, Danis B, Hirshberg L, Benoit D, Miller D, Heller SS. Disorganized attachment associated with partner violence: A research note. *Infant Ment Health J* 1999; 20(1): 77-86.
36. Mathias JL, Mertin P, Murray A. The psychological functioning of children from backgrounds of domestic violence. *Aust Psychol* 1995; 30(1): 47-56.
37. Cummings EM, Davies PT. *Children and marital conflict: The impact of family dispute and resolution*. New York, NY: Guilford Publications, 1994.
38. Marshall J, Watt P. *Child behaviour problems: A literature review of the size and nature of the problem and prevention interventions in childhood*. Canberra, Australia: National Library of Australia; 1999.