International Journal of Public Health (2018) 63:913–921
https://doi.org/10.1007/s00038-018-1139-x

ORIGINAL ARTICLE

Associations of intimate partner violence with screening for mental health disorders among women in urban Bangladesh

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Received: 25 July 2017 / Revised: 13 June 2018 / Accepted: 21 June 2018 / Published online: 5 July 2018

Abstract

Objectives We examined the association between intimate partner violence (IPV) and screening for depression in Bangladesh, a country with high prevalence of IPV and lack of data, awareness and provider infrastructure for mental illness.
Methods We used data from a representative sample of 11,202 women from the 2006 Bangladesh Urban Health Survey. Elements of social learning theory were used to examine the association. Additionally, we examined the interaction effect of experiencing IPV and justification of IPV on screening for mental health disorders.
Results Results indicate that women who experienced IPV were significantly more likely to be screened for mental health disorders (AOR = 2.09; 95% CI = 1.86–2.34). However, the direction of this association is reversed for women who justify various forms of IPV to varying degrees.
Conclusions These findings reflect the importance of how women's perception of violence may influence their mental health. Our results indicate a counter-intuitive association, given that we found that women's justification of IPV is adaptive for them in terms of preventing symptoms of mental health problems and have potential to inform future public health policy and research.

Keywords Intimate partner violence · Domestic violence · Mental health problems · Bangladesh

Introduction

Intimate partner violence (IPV) is a pervasive public health concern that affects approximately one in three women worldwide (Ellsberg and Emmelin 2014; Ellsberg et al. 2008). In developing countries, such prevalence is higher than global estimates (Garcia-Moreno et al. 2006b). For example, in Bangladesh, approximately 24% report recent and 60% report lifetime prevalence of IPV (NIPORT 2009). An understudied consequence of IPV in the developing world is its impact on mental health. This is despite the fact that studies show that mental health problems including posttraumatic stress disorder (PTSD) and depression including suicide ideation and attempt, as well as anxiety and stress that come with being abused, are associated with the experience of IPV (Campbell 2002; Campbell and Lewandowski 1997; Ellsberg et al. 2008).

In response to high rates of IPV in Bangladesh, the Domestic Violence (Prevention and Protection) Act was enacted in 2010 criminalizing physical, psychological, sexual and economic abuse of women and children by family members. The law provides directives for law enforcement officers to provide services such as ensuring that the plaintiff receives legal aid and referrals to shelters (MoWCA 2010). While the criminalization of violence against women was a step in the right direction, it did not criminalize marital rape, leaving a loophole in the system. Unfortunately, help-seeking for domestic violence, particularly from formal sources of help, remains low, because domestic violence remains highly stigmatized. Additionally, law enforcement officers often elide over the problem

This article is part of the special issue "Violence, Justice, and Health: Implications for a Multisectoral Collaboration".

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of domestic violence as marital discord and refuse to file charges against men who abuse their partners, which discourage women from seeking help (Cattaneo and DeLoveh 2008; Clement et al. 2015; Naved et al. 2006; Parvin et al. 2012, 2016). Together, these studies point to the need for collaboration between governmental policy and the criminal justice system that would provide a unified messageencouraging help-seeking for IPV.

Various conceptual frameworks have been used to map the association between IPV and mental health. A study from Turkey used contemporary learning theory to show that the main reasons for the association between IPV and mental health problems were helplessness and fear of reliving the trauma of IPV (Salcioglu et al. 2017). A study in South Korea used stress-coping theory to show that IPV had an impact on women's self-esteem and self-deprecation which mediated the effect on depression (Kim and Kahng 2011). In China, social support was the key reason for which women experiencing IPV were more likely to experience mental health problems, which is why migrant women were more likely to experience depression (Teng et al. 2014). Finally, a study from Pakistan found that all types of violence, sexual, emotional, and physical violence were significantly associated with suicide ideation (Ali et al. 2013).

A paradoxical result in this literature is that many survivors of IPV do not report experiencing mental health problems, in spite of what theories predict. One potential explanation is that in patriarchal societies, justification of IPV tends to be high, in line with the idea that women's subjugation is the norm, including among women, which means women often accept the violence in their lives (Krause et al. 2017; Murshid and Critelli 2017; Waltermaurer 2012). In Bangladesh, that figure amounts to 32.5% of national samples of women who justify IPV(Krause et al. 2017; NIPORT 2009, 2011). In this literature, justification of IPV is often framed as reasons for which women may be deserving of IPV, indicating that women are socialized to accept and justify violence against women. Some factors that have been examined in the literature and the Demographic and Health Surveys across countries are child neglect, burning food, refusing sex, arguing with husband, disrespecting elders, and going out without permission of the male authority figures in the household, often the husband (Krause et al. 2017; Schuler et al. 2012). When women accede to these factors as deserving of IPV, they tend to internalize the associated guilt (of neglecting their children, for example), which they perhaps mitigate by justifying the violence they experience. That women often direct the *cause* toward themselves as opposed to their abuser thus raises the question of whether such form of internalized guilt that allows women to justify IPV reduces the likelihood of developing symptoms of depression when they experience IPV.

This paper presents one of the first systematic evidences that the association between mental health issues and experience of IPV may differ depending on the victims' attitude toward IPV. We examine the association between IPV, recent and past, and mental health accounting for women's justification of IPV as a potential moderator of mental health problems among a population-based sample of women in urban Bangladesh.

Conceptual framework

The Global Burden of Disease Study indicates that major depressive disorder is the nineteenth most common disease in the world, one that is highly comorbid with anxiety disorders, which then increases the severity of mental illness (Kessler et al. 2015). This is particularly salient in South Asian countries like Bangladesh where mental health problems are highly stigmatized and misunderstood (Clement et al. 2015).

In Bangladesh, the prevalence of mental health problems seems to vary; a recent meta-analysis of 61 studies suggest a range of depression between 6.6 and 97% (Newman 2013) among various samples in Bangladesh. Other results are also in line with studies from developed countries that show that intimate partner violence increases women's odds of experiencing mental health problems including symptoms of posttraumatic stress disorder, depression including suicide ideation, anxiety and poverty (Coker et al. 2002; Flanagan et al. 2015; Meekers et al. 2013).

The current study is guided by the social learning theory (Bandura 1978) that has been widely used to show how violence and aggression are learned behaviors. Social learning theory posits that individuals exposed to violence are more likely to use violence or accept the use of violence. Bandura explains that this is because exposure to violence, which can come from multiple sources, such as the family, the communities in which they live, the media, that is, their social environment, normalizes the use of violence (Bandura 1978; Oppong 2014). Much of the media portrays women as subordinate and objectified, glorifying violence against women, creating a cycle of media portraying patriarchal reality and reality being portrayed by the media (Abbassi and Aslinia 2010; Mihalic and Elliott 1997; Snethen and Van Puymbroeck 2008; Yount et al. 2015).

We theorize that the normalization of violence as conceptualized as women's justification of wife-beating reduces women's propensity to be screened for mental health problems when they experience intimate partner violence. We argue there are three main reasons for which women

may justify IPV to begin with. First, women in patriarchal societies may subscribe to patriarchal norms and prescribed gender roles as well, which makes it possible for women to accept and justify violence against women in general, which then means that they accept the violence they themselves experience as well (Andersen et al. 2013; Gneezy et al. 2009; Kandiyoti 1988). Second, justification of IPV is a coping mechanism for women, particularly when they have to remain in abusive relationships, as the case may be in patriarchal societies like Bangladesh where shame and stigma of divorce keep people in unhealthy relationships. Third, women in cultures where violence against women is normalized are likely to internalize the views that reflect social norms. In other words, they are socialized to accept violence in their own lives (Haj-Yahia 2003; Heise et al. 2002; Murshid and Critelli 2017). Therefore, we treat "justification of IPV" as a social learning variable that may modify the association between women's experience of IPV and their likelihood of being screened for mental health disorders. As such, we examine whether justification of IPV interacts with IPV as we model the association between IPV and mental health screening. We control for variables that may inform the social learning process: age at first marriage, years of schooling, husbands' years of schooling, employment status, and type of living arrangement. Indeed, the social environment, in and outside the home, plays a role in what women learn.

Methods

The data for this study come from the Bangladesh Urban Health Survey (BUHS), a study conducted by the National Institute of Population Research and Training (NIPORT) and Measure Evaluation, University of North Carolina, Chapel Hill, USA in 2006. The overall sample was representative of six urban metropolitan areas with population over 45,000—Dhaka, Barisal, Chittagong, Khulna, Rajshahi and Sylhet. Though the BUHS interviewed each adult in a household, some questions were asked only to women (such as personal experience with IPV) and only to men (alcohol consumption), respectively. Interviews were conducted face-to-face in privacy. To create our sample, we start by retaining all currently married women. We then merge their husbands' education and employment variables to create the final sample. For our full model, our sample size varies between 9826 and 11,202, depending on missing data and cleaning for outliers. No other sample selection has been made. Similar to other household surveys, some variables suffer from missing data points. However, we find no evidence that there is any pattern to such missing data.

Measurement of key variables

The main independent variable of interest is intimate partner violence (IPV). The survey asked if there were any disagreements within the last year which caused the respondent's husband to do the following: (1) pushing or shaking you or throw something at you, (2) slapping you or twisting your arm, (3) punching you with his fist or with something that could hurt you, (4) kicking you or dragging you, and (5) trying to strangle you or killing you or burning you.

Table 1 reports the percentages of women who have reported various forms of IPV during the past year and also over the lifetime. For our main regressions, we have constructed a dichotomous variable to reflect intimate partner violence. If the respondent answered "yes" to any of the above questions, it was coded as 1; and 0 otherwise. For the justification measure, we construct a variable that captures the average number of situations in which a woman reports that it is acceptable for a husband to beat his wife. For example, the survey asked "In your opinion, do you think a man would be justified to beat his wife: (A) If she neglects the children? (B) If she argues with her husband? (C) If she fails to provide food on time? If she visits her family without her husband's permission? and (E) If she visits her friend without her husband's permission? Our variable is a simple average of these binary responses.

Table 1 Percentages of women reporting various forms of intimate partner violence (IPV) in the Bangladesh Urban Health Survey (BUHS) of 2006

	Percentage	*N*
Panel A: 12 Months before interview		
No IPV in any form	73.47	8230
IPV in one form	8.61	965
IPV in any two forms	7.07	792
IPV in any three forms	4.44	497
IPV in any four forms	4.3	482
IPV in all five forms	2.11	236
Panel B: any time before interview		
No IPV in any form	46.7	5231
IPV in one form	14.38	1611
IPV in any two forms	13.88	1555
IPV in any three forms	8.59	962
IPV in any four forms	10.61	1188
IPV in all five forms	5.85	655

The five forms of violence reported are (1) pushing or shaking you or throw something at you, (2) slapping you or twisting your arm, (3) punching you with his fist or with something that could hurt you, (4) kicking you or dragging you, and (5) trying to strangle you or killing you or burning you

Mental health outcomes

To collect information on mental health outcome variables, the survey uses the Self Reporting Questionnaire (SRQ-20) developed by the World Health Organization (WHO). The main purpose of this instrument is screening for mental health disorder so that the individuals who are screened for disorder can receive further clinical diagnosis and treatment. The instrument consists of 20 questions designed to find out if the respondent suffers from mental disorder. The methodology usually calls for creating a cut-off point, such that individuals with a score higher than the cut-off are deemed vulnerable to have mental disorder. We use benchmarks used in studies in India and Pakistan are particularly helpful because these countries share similar sociocultural background. In most of these studies (Howe et al. 2006; Husain et al. 2007; Kumar et al. 2005; Srinivasan and Suresh 1991), 7/8 were chosen as cut-off points (meaning if the total number of categories in which the respondent replies "yes" is more than seven or eight, the individual is screened for mental disorder). This threshold was also used in countries like Brazil. In this study, we are using "eight" as our cut-off point. This implies that if the sum of "yes" answers to the 20 questions is more than or equal to 8, our outcome variable "disorder" takes the value one; and zero otherwise. There are widespread advantages of using the instrument. It has been translated and used in a variety of languages and across the developing world. Several studies have validated the instrument over the years also (Harpham et al. 2003; Tuan et al. 2004).

Table 2 provides a list of all 20 yes/no questions, their averages and the average of the mental disorder variable across (1) women who have not experienced any form of IPV during the 12 months prior to their interview and (2) women who have experienced at least one form of such violence.

Other independent variables

The choice of independent variables was driven by the previous literature. These are known elements that affect IPV rates among women such as age, age at marriage, highest grades attained by both the respondent and her husband, employment status of both the respondent and her husband (dichotomous; = 1 if employed at the time of the survey), Islam (dichotomous; = 1 if Muslim and 0 for all other religions), slum dwelling status as determined by the survey (dichotomous; = 1 if the respondent lives an area designated as slum by NIPORT), overall physical health (dichotomous; = 1 if physical health is good), and socioeconomic status. The last variable was constructed and reported by the BUHS and consists of five categories of socioeconomic status based on dwelling characteristics, assets and land titles.

Statistical methods

We fitted multivariable logistic regression models to estimate associations between the likelihood of being screened for mental disorder and IPV age, age at marriage, religion education, physical health status, employment and husbands' characteristics like age, education and employment. To assess the importance of the role of attitude toward justification of IPV, we estimated similar models including an interaction term consisting of IPV and attitude toward violence, the variable defined in detail above.

Results

Table 1 shows that more than half of the women interviewed experienced some form of IPV during their marriages, while a quarter had such experience during the past year. A group of women even reported IPV in *all five* forms.

Table 2 reports percentages of women who have reported having mental health problems in the past 12 months in twenty categories and across two groups—women who have experienced some form of IPV during that period of time and women who have not. For example, while 60.8% of the women who have not experienced any violence last year reported that they "feel nervous," such percentage is much higher (73%) for women who reported to have experienced some form of violence. The table shows that women who experienced IPV in the reference period have reported higher incidence of mental health problems across *all* categories. Additionally, those differences are also largely statistically significant.

Table 3 presents means and percentages for all individual and spousal characteristics included in analyses across groups of women who were screened for mental health disorder. Results show that among the women who have been screened for mental health disorder, the age at marriage and average level of education are lower, a higher percentage of women have worse general health and live in slums.

Table 4 presents results from our logistic regressions. We present estimates from three models. The first model reports unadjusted odds ratios, the second model reports adjusted odds ratios (AOR) without interaction variables, and the third model shows AORs with interaction variables. These models are estimated for recent IPV (columns 1–3) and lifetime IPV experiences (columns 4–6), respectively. Regression diagnostics were conducted to identify multicollinearity using a variance inflation factor (VIF) to indicate a potential problem. All VIF values were less than 2.

Table 2 Percentages of various forms of mental health problems among women in the Bangladesh Urban Health Survey (BUHS) of 2006

	Full sample	No IPV last 12 months	Some IPV last 12 months	*p* value
Feel nervous	64.0	60.8	73.0	0.001
Easily frightened	19.9	17.6	26.2	0.001
Feel unhappy	32.4	26.8	47.7	0.001
Find it difficult to make decisions	21.3	18.8	28.4	0.001
Have headaches	60.8	57.7	69.1	0.001
Have problem to think clearly	34.6	31.8	42.3	0.001
Find it difficult to enjoy daily activities	53.5	50.4	62.1	0.001
Lose interest in things	27.3	25.0	33.9	0.001
Constantly feel tired	53.2	50.2	61.3	0.001
Poor appetite	36.6	34.0	43.7	0.001
Problem with sleep	34.6	32.7	39.8	0.001
Uncomfortable feelings in stomach	22.3	20.4	27.6	0.001
Hands often shake	21.3	18.4	29.2	0.001
Feel tired	38.1	35.2	46.1	0.001
Cry more than normal	16.1	12.9	25.0	0.001
Daily activities suffering	18.6	16.6	24.3	0.001
Thought of ending life	9.1	5.9	18.1	0.001
Unable to play a useful part in life	21.3	17.8	30.9	0.001
Suffer from poor digestion	12.6	11.3	16.0	0.001
Feel worthless	17.4	13.8	27.3	0.001
Number of women (*N*)	11,202	8230	2972	

Rows show percentages of women who report respective mental health problems. The *p* values show that the percentages of women reporting respective forms of mental health problem differ significantly by experience of IPV

Table 3 Descriptive statistics for selected variables according to screening for mental health disorder-Bangladesh Urban Health Survey (BUHS) of 2006

Variables	Not screened for disorder		Screened for disorder	
	Mean/ percentage	*N*	Mean/ percentage	*N*
Age				
16–24	29.96	2114	20.01	740
25–34	36.71	2590	34.96	1293
35–44	23.41	1652	29.39	1087
45–54	8.52	601	13.22	489
55	1.4	99	2.41	89
1 if Muslim	90	7385	92	3817
Age at first marriage	16.42	7385	15.34	3817
Years of schooling	5.54	7385	3.61	3817
Unemployed	77	7385	73	3817
1 if general health good	33	7385	13	3817
Husband age	42.78	6754	44.22	3469
Husband years of schooling	6.24	6755	4.69	3469
Husband unemployed	9	6755	9	3469
1 if lives in a slum	45	7385	54	3817

Cells report averages for continuous variables and percentages for categorical variables, respectively. mental health disorder = 1 if the sum of "yes" answers to the 20 questions listed in Table 2 is more than or equal to 8; zero otherwise

Table 4 Effects of intimate partner violence (IPV) on the probability of being screened for mental health disorder in Bangladesh Urban Health Survey (BUHS) of 2006-logistic regressions

	[1] Unadjusted OR [95% CI]	[2] Adjusted OR [95% CI]	[3] Adjusted OR [95% CI]	[4] Unadjusted OR [95% CI]	[5] Adjusted OR [95% CI]	[6] Adjusted OR [95% CI]
1 if some IPV last year	2.15***[1.95–2.37]	2.09***[1.86–2.34]	2.32***[1.99–2.70]			
1 if some IPV Ever				2.43***[2.21–2.66]	1.81***[1.63-–2.02]	1.98***[1.72–2.27]
Age 16–24 (reference)						
Age 25–34		1.49***[1.32–1.68]	1.50***[1.33–1.69]		1.39***[1.23–1.56]	1.40***[1.24–1.57]
Age 35–44		1.99***[1.72–2.31]	2.00***[1.72–2.31]		1.72***[1.49–1.99]	1.73***[1.50–2.01]
Age 45–54		2.41***[1.97–2.94]	2.43***[1.99–2.98]		2.00***[1.64–2.45]	2.03***[1.66–2.49]
Age 55		2.63***[1.84–3.77]	2.66***[1.86–3.80]		2.29***[1.60–3.27]	2.31***[1.62–3.30]
1 if Muslim		1.05[0.86–1.29]	1.04[0.85–1.28]		1.06[0.86–1.31]	1.05[0.85–1.30]
Age at first marriage		0.95***[0.93–0.97]	0.95***[0.94–0.97]		0.96***[0.94–0.97]	0.96***[0.94–0.98]
Years of schooling		0.96***[0.95–0.98]	0.96***[0.95–0.98]		0.97***[0.95–0.98]	0.97***[0.95–0.99]
1 if Unemployed		0.99[0.88–1.11]	0.98[0.87–1.10]		0.99[0.89–1.12]	0.99[0.88–1.11]
1 if General health good		0.36***[0.32–0.41]	0.36***[0.32–0.41]		0.37***[0.32–0.41]	0.37***[0.33–0.42]
1 if husband unemployed		1.00[0.83–1.20]	0.98[0.81–1.18]		1[0.83–1.20]	0.98[0.81–1.18]
1 if lives in-slum		0.96[0.82–1.14]	0.94[0.80–1.11]		0.98[0.82–1.16]	0.96[0.81–1.13]
Socioeconomic group 1 (reference)						
Socioeconomic-group 2		1.06[0.93–1.22]	1.06[0.92–1.22]		1.04[0.90–1.19]	1.04[0.90–1.19]
Socioeconomic group 3		1.06[0.91–1.25]	1.06[0.91–1.25]		1.02[0.87–1.19]	1.02[0.87–1.19]
Socioeconomic group 4		0.81**[0.67–0.97]	0.81**[0.68–0.98]		0.78***[0.65–0.94]	0.78***[0.65–0.94]
Socioeconomic group 5		0.61***[0.49–0.77]	0.63***[0.50–0.80]		0.61***[0.48–0.77]	0.63***[0.50–0.79]
Attitude toward justification			1.40***[1.24–1.58]			1.51***[1.29–1.77]
Interaction: IPV × higher acceptance of IPV			0.79**[0.65–0.97]			0.79**[0.65–0.95]
Observations	11,202	9826	9826	11,202	9826	9826

Dependent variable = 1 if screened for mental health disorder

AOR adjusted odds ratios, *CI* confidence interval

***$P < .01$; **$P < .05$. Mental Health Disorder = 1 if the sum of "yes" answers to the 20 questions listed in Table 2 is more than or equal to 8; zero otherwise. The socioeconomic groups were created by BUHS; 1 and 5 are the lowest and highest groups, respectively. All regressions also control for district dummies(not reported to avoid clutter). The six districts were Dhaka, Rajshahi, Khulna, Chittagong, Sylhet, Barisal; Dhaka being the reference district. For the interaction term, the reference group is women who never experienced IPV and does not justify it. Regression diagnostics were conducted to identify multicollinearity using a variance inflation factor (VIF) to indicate a potential problem. All VIF values were less than 2

IPV experience is strongly and significantly correlated with the propensity of mental health disorder screening (OR = 2.15; 95% CI = 1.95, 2.37). Even after we controlled for sociodemographic variables and other confounding factors in column (2), respondents with IPV experience in the past 12 months were more likely to have mental health problems than their peers who did not experience such violence. Specifically, women with IPV experience were twice more likely being screened for mental illness (AOR = 2.09; 95% CI = 1.86, 2.34). In the multivariate model, older women had higher odds of being screened compared to the youngest cohort. Socioeconomic status affected the odds significantly only for the highest two groups. Religion, physical health, and slum dwelling status had no significant main effects on mental health disorder.

Such estimates are remarkably stable even when we examine the association of mental health problems with the *past* IPV experience. Note that there are significant differences between current and past IPV experiences as illustrated in Table 1. In the unadjusted model, we found that higher levels of IPV increased the odds of being screened for mental health disorder by 143% as reported in row 2 of Table 4 (OR = 2.43; 95% CI = 2.21, 2.66). The risk of mental health disorder remained high for respondents with lifetime IPV experience even after controlling several confounding variables (AOR = 1.81; 95% CI = 1.63, 2.02) though the marginal effect of IPV goes down in magnitude in the latter case. The pattern of association between other control variables and the outcome is similar to that of between recent experience and IPV suggesting that such associations are robust.

To understand the effect of attitude toward IPV within marital relationship on mental health, we combined the effects captured by the survey responses to justification of IPV with the focal independent variable, IPV experience in past 12 months and over the lifetime. Table 4 reports the corresponding results in columns (3) and (6), respectively. Adjusted odds ratios associated with the interactive effects show a significant and *negative* association mental health disorder and increased extent of IPV, when accompanied by higher degrees of tolerance toward IPV. The results are true for both recent IPV experience (AOR = 0.79; 95% CI = 0.647–0.967) and lifetime IPV experience (AOR = 0.79; 95% CI = 0.650–0.949).

Discussion

In this paper, we examined the association between women's recent and past experience of intimate partner violence (IPV) and screening for mental health disorders. We also examined the interaction effect of experiencing IPV and justification of IPV on screening for mental health disorders.

We found that women who experienced IPV were significantly more likely to be screened for mental health disorders (i.e. displaying symptoms of mental disorders such as depression) consistent with our hypothesis. However, the direction of the association was reversed when women justified IPV. In the latter case, they were significantly less likely to be screened for mental health disorders, providing support for the notion that when women are socialized to accept violence against women, the experience of IPV is less likely to be associated with symptoms of depression, because their experience is congruent with social norms that subjugate women.

These findings build on and extend knowledge about how IPV increases the likelihood of women experiencing mental health problems such as depression in a number of countries including South Korea, Turkey, China, and South Africa (Kim and Kahng 2011; Meffert et al. 2015; Salcioglu et al. 2017). Seen together with another study from Bangladesh that found that women who witnessed their fathers beating their mothers were more likely to experience intimate partner violence (Murshid 2012), the current study provides a rationale for why women may remain in abusive relationships, having accepted social norms that render women subordinate to men.

There are several reasons grounded in social learning theory for which this may happen. One, that women justify IPV is an indication that they have socially learned to accept patriarchal ideas of social and family order which permit men to use violence against their partners and wives to maintain control and power over them (Murshid and Critelli 2017). It is perhaps their adherence to patriarchal social norms that allow women to accept their experience of IPV, which then precludes them from exhibiting symptoms of mental health problems. Two, women who experience IPV often buy into the victim-blaming narratives that their abusers use to justify their use of violence, which is what they internalize and accept as their own belief. Again, victim-blaming narratives are consistent with patriarchal norms, and if women are socialized to accepted patriarchy, they are likely to accept myths that are created by patriarchy as well, including myths that blame them for their own experience of violence. Three, individuals in cultures and societies that are home to high levels of community and political violence are likely to normalize the use of violence, even if laws criminalize those acts. It is, thereby, very likely that women in such societies will justify IPV because it is a reflection of their social order. That images of violence are ubiquitous across the world deepens the normalization of violence, as it becomes clear that patriarchy or violence are not problems of the global

South, but fairly universal, affecting one in three women worldwide.

Finally, this piece of finding regarding IPV justification should be seen with studies indicating that women's justification of IPV may mean that they remain in protracted abusive relationships, which, in turn, increase their risk of diminished physical and reproductive health, including unwanted pregnancy and sexually transmitted diseases (Allsworth et al. 2013; Garcia-Moreno et al. 2006a).

This study, while demonstrating excellent external validity given that we use a representative sample, has several limitations. First, the cross-sectional nature of the data makes causal inference difficult, and we cannot rule out reverse causality. The associations revealed in the study are important and new, however, providing a rationale for further study. Second, the stigma of experiencing IPV as well as mental health problems may lead to social desirability bias and thus under-reporting of such indicators. However, this study reveals that a high proportion of women are likely to be screened for mental health disorders, which, even considering under-reporting, provides a basis for examining the possible predictors of mental health disorder. Finally, the survey does not ask any substance abuse-related questions to women, including smoking and alcohol consumption. Though such behavior is not widespread among women in Bangladesh, it remains an omitted variable concern. Future studies would do well to control for potential maladaptive behaviors that may enhance the odds of being screened for mental health disorders.

Notwithstanding these limitations, this is the first study to examine the link between IPV and justification of IPV on mental health pointing to the importance of accepting IPV as a way to prevent experiencing symptoms of mental health disorders. While we do not make any causal claims, the widespread practice of IPV makes it unlikely to be driven mainly by the mental health issues of the abused. Additionally, the results are robust across different measures, and heterogonous—the relationship is reversed for women among whom IPV practices are acceptable. Women were interviewed in private, and the mental health screening instruments and results are comparable across other South Asian countries making reporting bias to be a substantial concern. In terms of health and public policy, our results imply that IPV and mental health practitioners would do well to incorporate this idea into their practice by focusing on women's acceptance of their experiences. A cautionary note must be made, however; practitioners should separate the idea of *acceptance* from *justification* of women's experiences of IPV to ensure that they are not internalizing the victim-blaming myths that may be associated with their abuse. In terms of policy and practice, the study findings support the literature that identify the need for collaboration between governmental policy and the criminal justice system to aid women who experience IPV.

Compliance with ethical standards

Conflict of interest The authors (Prabal K. De and Nadine Shaanta Murshid) confirm that there are no known conflicts of interest associated with this publication and there has been no financial support for this work that could have influenced its outcome.

Ethical approval Ethics approval was not required as the data used in this study were previously collected and are publicly available in a de-identified format.

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