Gender Equitable Parental Decision-Making and Intimate Partner Violence Perpetration in Bangladesh

Objective: This paper examines the relationship between exposure of men as children to gender equitable parental decision-making and the potential for subsequent later life engagement in intimate partner violence (IPV) in Bangladesh.

Background: Although researchers have recently begun to explore multilevel influences on IPV perpetration, no studies have examined how decision-making between parents at home and within the community relates to IPV perpetration in low-income settings. Drawing on a theoretical framework of gendered social learning, gender equitable parental decision-making may be an important protective factor against IPV.

Method: This study uses a random probability sample of 1,499 married men in Bangladesh. The main outcome is physical IPV perpetration in adulthood, while two exposure variables measure the equity of parental decision-making in the man's childhood home and his current community. A series of two-level negative binomial models, controlling for pertinent individual- and community-level factors, are estimated.

Results: Exposure in childhood to more equitable decision-making between parents is negatively associated with a man's physical IPV perpetration in adulthood. Gender equitable parental decision-making within one's current community is not significantly associated with IPV.

Conclusion: Boys who grow up exposed to more equitable decision-making between parents in the home may be less likely to engage in physical IPV perpetration as an adult.

Keywords: domestic violence; family well-being; gender roles; masculinity

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Intimate partner violence (IPV) is a global public health problem affecting millions of women around the world. Defined as "physical violence, sexual violence, stalking, and psychological aggression (including coercive acts) by a current or former intimate partner" (Breiding, Basile, Smith, Black, & Mahendra, 2015, p. 9), IPV is especially prevalent in certain regions of the world, including Africa (37%), the Middle East (37%), and Southeast Asia (38%) (Devries et al., 2013). Although a range of factors has been identified to increase a man's risk of perpetrating IPV, the predominant focus of this research has been in higher-income countries at the individual level (García-Moreno et al., 2013). However, researchers recently have begun to explore the multilevel influences on men's IPV perpetration in lower-income settings, including parts of South Asia (Authors, 2012; Author, 2016; Authors, 2018; Gupta et al., 2018; Heise & Kotsadam, 2015; Tran, Nguyen, & Fisher, 2016).

IPV is particularly pervasive and highly normalized in Bangladesh, where 1 in 2 ever-married women over the age of 15 reports experiencing physical and/or sexual IPV over their lifetime (Authors, 2017; Bangladesh Bureau of Statistics [BBS], 2016). Research has generally focused on negative experiences that increase men's risk for perpetrating IPV, such as exposure to masculine dominance in childhood and community norms of masculine dominance (Authors, 2016; Authors, 2018; Heilman & Barker, 2018; Jakupcak, Lisak, & Roemer, 2002; Pleck, Sonenstein, & Ku, 1993). The influence of these factors has been found across a range of social settings, regardless of study design (Authors 2016; Heise & Kotsadam, 2015; Heilman & Barker, 2018; Hindin, Kishor, & Ansara, 2008; Rydstrøm, 2006; Tran, Nguyen, & Fisher, 2016). However, no research has examined the influence of witnessing positive parental dynamics on

violence perpetration. This study analyzes data from a probability-based community sample of men in Bangladesh (N = 1,499) to examine the relationship between a man's experience in childhood of gender equitable parental decision-making and within his community as an adult with his risk of perpetrating physical IPV. We draw on Heise's (1998) social ecological theory of IPV etiology alongside Hearn's (1998) gendered social learning theory (GSLT) to frame the analysis and interpret the results.

BACKGROUND

Multilevel Social Ecology in Bangladesh and IPV Perpetration

A social ecological framework accounts for interrelated personal, situational, and sociocultural factors to examine the etiology of violence against women across multiple levels of the social system (Dutton, 1995; Heise, 1998). In the context of violence perpetration, such frameworks tend to emphasize the risk, rather than the protective, factors across levels that relate to the perpetrator's experiences. The four levels in this risk-oriented social ecological framework include elements in one's personal history, microsystem, exosystem, and macrosystem that predispose one to violence perpetration.

Risk factors for IPV perpetration among men in Bangladesh have been found among each level. One's personal history refers to individual experiences that influence one's reactions to the world around them throughout the life course. Certain individual factors increase the risk for later-life IPV perpetration including witnessing inter-parental violence in childhood and experiencing maltreatment in childhood (Authors, 2017; Das, Amin, Johnson, & Hossain, 2008; Jewkes, 2002). The microsystem refers to family-related situational factors associated with IPV perpetration, including male dominance in the family, marital conflict, alcohol use, men's control over family wealth, and lack of social support from either the husband or the wife's family

(Capaldi et al., 2012; Heilman & Barker, 2018; Jewkes, 2002; Stith, Smith, Penn, Ward, & Tritt, 2004; Walton-Moss, Manganello, Frye, & Campbell, 2005). Exosystem, or community-level, factors refer to social structures within one's immediate social setting. Risk factors at this level for IPV include unemployment and low socioeconomic status, delinquent peer associations, and low community-level collective efficacy (Authors, 2015; Jewkes, 2002; Rahman, Hoque, & Makinoda, 2011). Finally, macrosystem risk factors for IPV perpetration include expectations about masculinity linked to toughness and dominance, inflexible gender roles, norms of condoning violence as a way to settle interpersonal disputes, and the practice of village exogamy (Authors, 2013; Authors, 2017; Authors, 2018; Capaldi et al., 2012; Pleck, Sonenstein, & Ku, 1993; Sayem, Begum, & Moneesha, 2012).

Although risk factors for IPV perpetration have been identified across the social ecology, few studies have examined the positive interactive dynamics between parents and how they might influence young boys and violent behavior later in life. The day-to-day interactions between parents in the home may have a significant influence on boys by modeling gender equitable behavior that informs later-life practices with a partner (Rahman, Hoque, & Makinoda, 2011). Given that parental dynamics may influence boys within the home and as a normative practice within the community as adults, we address this under-researched area of study using a multilevel approach.

Gendered Social Learning Theory

Within a multilevel ecological framework, social learning theory (SLT) has been used to explain key mechanisms of IPV perpetration, such as the intergenerational transmission of violence (Akers, 1985; Ehrensaft et al., 2003; Stith et al., 2000; Widom & Wilson, 2015). SLT posits that people learn behaviors from one another through observation, imitation, modeling,

and differential association (Akers, 1985; Bandura, 1978). Building on the work of Bandura and Akers, Hearn's (1998) gendered social learning theory (GSLT) posits that general theories of social learning do not account for the ways in which learning about violence is gendered. The framework draws on seminal research by Connell (1987; 1996) regarding hegemonic masculinity and its influence on violent behavior towards women. Hearn's synthesized approach suggests that a more nuanced SLT should account for not only the different mechanisms related to how an individual imitates, defines, and is reinforced for behavior (Akers, 1985), but also the gendered social contexts in which learning occurs (Hearn, 1998; Messerschmidt, 2000).

This theoretical approach has important implications for understanding IPV perpetration by men against women. For instance, boys may learn that they need to be physically or sexually dominant with intimate partners to adhere properly to norms of masculinity from a young age (Connell, 1996; Messerschmidt, 2000). These gendered scripts also may encourage the use of violence as a means to solve interpersonal disputes with intimate partners (Heilman & Barker, 2018). Boys and men who are taught to model rigid norms about masculine roles and behavior may be more likely to perpetrate violence than are girls, who have been socialized to be passive and tolerant of the violence they experience (Authors, 2011; Jakupcak, Lisak, & Roemer, 2002; Jewkes, 2002; Pleck, Sonenstein, & Ku, 1993).

GSLT: Integrating Equitable Decision-Making

Within a GSLT framework, one factor that may protect against the risk of violence perpetration is gender equitable parental decision-making. Joint decision-making between couples has been endorsed as a means of establishing relationship equality, and research suggests equitable decision-making is beneficial for relationships (Bartley, Blanton, & Gilliard, 2005; Van Willigen & Drentea, 2001). Our conception of gender equitable decision-making refers to how

spouses navigate household decisions, such that the husband and wife have mutual voice and agency in the decision. We posit that gender equitable decision-making between partners is a distinct construct from gender equitable relations because it reflects mutual agency and is distinctive from role or resource distribution within a relationship. Partners who practice gender equitable decision-making establish a majority of decisions jointly with equivalent input while a household with less gender equitable decision-making may have one partner dominate the decision-making. Gender equitable decision-making may be especially salient for children in Bangladesh, where men's dominance over their wives may be a common gender dynamic (Story & Burgard, 2012).

Much of the research on parenting practices and decision-making in the home is based on studies conducted in Western settings (Stewart & Bond, 2002). Recent studies that examine couples' decision-making in Southeast Asia have typically focused on women's autonomy in the decision-making process (Allendorf 2007; Jejeebhoy, 2002; Rahman, Hoque, & Makinoda, 2011). However, Mumtaz & Salway (2009) suggest that greater attention should be paid to the influence of joint decision-making among husbands and wives, rather than solely the woman's independence from her husband. Despite gains, continued restrictions in women's freedom of movement and educational opportunities in Bangladesh are prevalent (Story & Burgard, 2012). Therefore, an understanding of joint negotiations between husbands and wives may clarify the dynamics between partners and the influence of the behaviors on others in the family (Kabeer, 2001).

Boys who witness more gender equitable decision-making between parents may learn these behaviors and carry them into adulthood (Grusec, Goodnow, & Kuczynski, 2000). In particular, they may learn to internalize the benefits and rewards of equitable practices in a future

partnership with a woman rather than engage in dominant or violent behaviors (Jakupcak, Lisak, & Roemer, 2002; Jewkes, 2002). However, experiences of violence and gender equitable decision-making among parents can co-occur in a boy's life, and therefore, not all households may be characterized as solely "equitable" or solely "violent." Over the course of his childhood, a boy may observe both types of behaviors between his parents, each of which may be internalized to some degree and influence later-life violent perpetration. Therefore, both positive and negative experiences in childhood should be considered when assessing later-life violence perpetration.

In addition to behaviors in the home, there may be protective elements regarding gender relations in the wider community. Partnered or married men living in a community where other men value shared influence over meaningful decisions are likely to be influenced by these practices (Kabeer, 1999). In line with SLT, a higher prevalence of equitable decision-making as a conventional practice within the community is likely to increase an individual's imitation of those practices, as well as encourage positive attitudes towards equitable decision-making in a partnership. These decision-making dynamics may be especially consequential in Bangladesh, where men typically are dominant within the household and women have fewer opportunities to exercise influence.

Formal Hypotheses

Based on the theory and evidence cited above, we propose two hypotheses regarding the relationship between gender equitable parental decision-making at two levels and physical IPV perpetration by men. Hypothesis 1 (H1) states that witnessing more equitable decision-making between parents in childhood will be negatively associated with physical IPV perpetration as an

adult. Hypothesis 2 (H2) states that more equitable decision-making in the current community will be negatively associated with physical IPV perpetration as an adult.

METHOD

Data

The International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b, 2012) collected the data for this study as part of the *UN Multi-Country Study of Men and Violence*. Two sites in Bangladesh were sampled, one rural and one urban. Matlab, which has a population of about 500,000, was the rural site, and Dhaka, the commercial center and capital of Bangladesh, was the urban site. Data were collected in 2011. The study used a self-weighted, multi-stage sample design. Men between the ages of 18 and 49 years were recruited from clusters comprised of 50 *mohollas* in Dhaka and 64 rural villages in Matlab. The *mohallas* and villages are the smallest administrative units in their respective regions, sharing similar social structures and geographic boundaries. Historically, people in Bangladesh have recognized these structures as local communities and identify with their own *mohalla* or village. In Dhaka, the fifty mohollas were selected using probability proportionate-to-size (PPS) sampling, and one enumeration area of about 120 households was created for each of the *mohollas* based on 2011 Census data (icddr,b, 2012). Similarly, in Matlab, sixty-four villages were selected using PPS sampling. Thirty households were chosen randomly in each village. In each of the identified enumeration areas, one eligible man was selected from each household to take the survey

A total of 2,400 interviews were completed across Dhaka and Matlab, from an initial sample size of 3,316 men. Dhaka had a response rate of 73%, and Matlab's response rate was 93% (Authors et al., 2016). Of the original sample of 2,400 men, we dropped those who were single or who did not indicate marital status (N=892), resulting in a sample of 1,508 men that

were married or cohabitating. Nine additional cases were then dropped due to missing data on the measures of masculinity (N=4) and equitable decision-making (N=5) included in the analysis, for a final sample of 1,499. Chosen from a random sample of the small, medium, and large communities surveyed, there was an average of 13 men in each of 114 communities in the final sample (icddr, b, 2012). The questionnaire included eight modules related to demographics and employment, childhood experiences, attitudes towards gender relations, health and well-being, and intimate relationships. Respondents used personal digital assistants to respond privately to sensitive questions about illicit and violent behavior (icddr, b, 2012).

Measures

Individual-level Outcome

Count of types of physical IPV ever perpetrated by ever-married men. We measured physical IPV using five items adapted from the Revised Conflict Tactics Scale, a behaviorally based measure of IPV (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The questions related to having ever engaged in any of the violent behaviors. Example items were "Have you ever slapped a partner or thrown something at her that could hurt her?" and "Have you ever pushed or shoved a partner?" The original response options were: *never* (1), *once* (2), *few* (3), *and many* (4). Cronbach's alpha for the five original response items was 0.74. We dichotomized each item to reflect *ever* (1) versus *never* (0) perpetration of that item. We then summed the items to generate a count for the number of types of physical IPV that a man reported to have ever perpetrated. We use negative binomial regression models for the analysis since this outcome measure is an over-dispersed count variable.

Individual- and Community-level Exposure Variables

Gender equitable parental decision-making in childhood. We constructed the measure for individual-level gender equitable parental decision-making using three items, each asking the respondent who among their parents made decisions regarding children in the family, daily expenses like food and clothing, and spending on large investments such as a car when they were a child. Original response options for each item were: *father* (1), *mother* (2), *or both equally* (3). We found substantial variation in decision-making across decision types. Decisions were made equitably by 33% (large purchases) to 38% (children-related) of partners across the three decision types. When decisions were not made equitably, they most often were made unilaterally by the father for 45% (children-related) to 53% (large purchases) of participants. Mothers were unilaterally responsible for decisions significantly less frequently, from 13% (large purchases) to 17% (children-related) of the participants across the three decision types.

Cronbach's alpha for the three items was 0.81 in this sample. We validated the items using exploratory (EFA) and then confirmatory factor analyses (CFA) in random split-half samples. The final CFA model had adequate factor loadings (0.72–0.85), and fit (RMSEA = <.01; CFI = 0.90; TLI = 0.94). Although the measure was comprised of only three items, prior research suggests that this number is adequate for establishing a single factor measure using a CFA model (Reilly, 1995). To construct the final measure, we dichotomized each item to reflect decisions made by both equally (1) versus all other options (father or mother only; 0). We then summed the dichotomized items to create a scale ranging from *no decisions made equitably* (0) to *all decisions made equitably* (3), with higher values representing more equitable decision-making in the man's childhood home.

Community gender equitable parental decision-making. We generated the measure of gender equitable parental decision-making in the respondent's current community using three

items asking about the respondent's own decision-making as an adult with his wife or partner regarding children, daily expenses, and large purchases or investments. Cronbach's alpha for the original three items was 0.79. We validated the items using EFA/CFA, and the final CFA model included items with adequate factor loadings (0.58-0.86) and proper fit in the sample of men (RMSEA = <.01; CFI = 0.99; TLI = 0.97). We then dichotomized the items and summed them to create a scale ranging from 0 to 3, with higher values representing more equitable decision-making within the man's own household. We created the community-level measure using the mean individual summed scale score of equitable decision-making across men within each community to test H2.

Covariates

Masculinity attitudes. We created the measure for individual-level endorsement of masculine dominance using six items representing attitudes about traditional masculinity (non-economic) taken from the gender equitable men's scale (Pulerwitz & Barker, 2004). Example items were: "You think a woman should obey her husband" and "You think a man should have final say in all family matters" (for all items, see Table 1). The response options ranged from strongly *agree* (1) *to strongly disagree* (4). Cronbach's alpha for the scale was 0.61 and coefficients did not differ significantly across rural and urban samples. Although the Cronbach's alpha coefficient for this scale was slightly lower than that of other measures in the analysis, all factor analysis fit statistics suggest that this is an appropriate construct given the available items. Following a sequential EFA/CFA in random-split samples, the fit of the CFA model for the construct was adequate in the full sample (factor loadings 0.42–0.70; RMSEA = 0.05; CFI = 0.95; TLI = 0.91). We then recoded each item as *strongly disagree or disagree* (0) *and agree or strongly agree* (1). The final summed scale thus ranged from no endorsement of *masculine*

dominance (0) to indicating *full endorsement of masculine dominance* (6). We created a community-level measure of norms of masculine dominance by averaging the individual-level scores of men within each community.

Experiences of violence in childhood. We included a measure of a married man's childhood experiences of violence using seven items adapted from the Childhood Trauma Questionnaire – Brief Screening Version (Bernstein et al., 2003; Table 1). Examples of items are "Before you reached 18, you were insulted or humiliated by someone in the family in front of others" and "Before you reached 18, you were beaten so hard at home that it left a mark or bruise." Original response options were: *never* (1), *sometimes* (2), *often* (3), and *very often* (4). Cronbach's alpha for the seven included items was 0.70. Following sequential EFA/CFA in random split-half samples, the final CFA model had adequate factor loadings (0.51–0.87) and adequate fit (RMSEA = 0.07; CFI = 0.97; TLI = 0.95). We then dichotomized the items to *never* (0) and *ever* (1) having experienced the specific type of maltreatment. We summed these times to create a scale ranging from *agreed with none* (0) to *agreed with all* (7), such that a higher count represented experience of more types of violence in childhood. We generated a community-level mean experience of violence score by averaging the scores of all men within each community.

Additional covariates. We included salient covariates that prior work has shown to be a correlate of IPV perpetration. Other controls at the individual level included: completed grades of schooling (Lorant et al., 2003), a continuous variable ranging from 0 to 22 grades; whether (1) or not (0) a man's marriage involved a dowry (Anwary, 2015); the difference between the husband's age and his wife's age reported in years (Coker, Smith, McKeown, & King, 2000); and the number of living children they had (Hosain, Monawar, Chatterjee, Ara, & Islam, 2007). At the community level, we controlled for urbanicity (urban=1, rural=0; Vlahov & Galea, 2002),

and the average completed grades of schooling among men (Johnson & Das, 2008; Authors, 2005).

Analytic Strategy

To evaluate our two hypotheses, we estimated a series of two-level negative binomial models (Goldstein, 1995). Let η_{jk} denote the log count (or scope) of IPV acts ever perpetrated by participant *j* in community *k*. The general model for the expected log count of IPV is represented as:

$$\eta_{jk} = \gamma_{00} + \gamma_{01} CommDecisionMaking_{1k} + \gamma_{10} ChildDecisionMaking_{1jk} + \sum_{q=2}^{4} \gamma_{0q} Lvl2cov_{qk} + \sum_{p=2}^{6} \gamma_{p0} Lvl1cov_{pjk},$$

where $CommDecisionMaking_{1k}$ represents the level of equitable decision-making in current community *k* and $ChildDecisionMaking_{1jk}$ measures the level of equitable decision-making witnessed by participant *j* in community *k* in his childhood home. $ChildDecisionMaking_{1k}$ is group-mean centered and thus γ_{10} captures its within-community effects on the outcome. $Lv12cov_{qk}$ and $Lvl1cov_{pjk}$ are level-2 covariate *q* and level-1 covariate *p*, respectively. These were included to ensure the effects of the main theoretical variables were adjusted for major sources of confounding at both levels. To assess H_1 and H_2, we tested the statistical significance of individual coefficients associated with our main level-1 predictor (parental decision-making in the man's childhood home) and level-2 predictor (parental decision-making in the man's current community). For all models, level-1 predictors are group-mean centered and level-2 predictors are grand-mean centered. The coefficients associated with the level-1 predictors, therefore, represent within-group influences on the outcome, whereas those of the level-2 predictors represent between group effects. The group-mean centered predictors are uncorrelated with the

level-2 predictors, ensuring that estimates of the influence of level-1 predictors will not partial out level-2 predictors (Enders & Tofighi, 2007).

Model 1 examined whether perceived gender equitable parental decision-making in childhood predicted IPV perpetration while controlling for experience of violence in childhood, a known risk factor. This model allowed us to test H1. To assess H2, we included the perceived gender equitable parental decision-making in the man's current community as a predictor in Model 2, while controlling for equitable parental decision-making in the man's own household. In Models 3 and 4, we first entered individual- and community-level measures of masculinity, and then other covariates to examine whether the associations between our two main theoretical measures and IPV perpetration change after controlling for these additional covariates at different levels. We used Stata 15 and Mplus statistical software programs for all analyses.

RESULTS

Descriptive Results

Table 1 presents individual-level demographic characteristics and descriptive statistics for the sample. On average, men had perpetrated about one of five physical IPV types (M = 1.16). Across the three decision-making items, an average of between .31 and .36 of the responding men reported equitable decision-making in the home. The total equitable-decision making scale suggests that an average of about one in three decisions in the home is made equitably between partners (M = 0.96).

Table 1. ***Unweighted Characteristics of Sample, Ever-Married Men (18–49 years, N = 1,499) Bangladesh, 2011***

Variables and Items	*M*	*SD*	Range
Outcome Variable			
Physical IPV, prop. perpetrating			
slapped or thrown something that could hurt her	.49	*(.50)*	0 - 1
pushed or shoved partner	.39	*(.49)*	0 - 1
hit w/ fist or w/ something that could hurt her	.18	*(.38)*	0 - 1

kicked, dragged, beaten, choked, or burned	.08	*(.27)*	0 - 1
threatened to use or actually used a gun, knife, or other weapon	.02	*(.14)*	0 - 1
perpetration of physical IPV, ct	1.16	*(1.34)*	0 - 5
Exposure Variable			
Equitable decision-making in childhood, prop. deciding equally			
regarding you & your brothers/sisters	.36	*(.48)*	0 - 1
regarding money spent on food & clothing	.30	*(.46)*	0 - 1
regarding money spent on large investments	.31	*(46)*	0 - 1
equitable decision-making, ct	.96	*(1.19)*	0 - 3
Covariates			
Experiences of violence ≤ 18 years, prop. witnessing			
saw or heard mother being beaten by her husband/boyfriend	.29	*(.45)*	0 - 1
told you were lazy, stupid, or weak by someone in family	.36	*(.48)*	0 - 1
someone touched buttocks/genitals or made to touch them against will	.26	*(.44)*	0 - 1
insulted or humiliated by someone in family in front of others	.39	*(.49)*	0 - 1
beaten at home w/ belt or stick or something else which was hard	.14	*(.34)*	0 - 1
one or both parents were too drunk to take care of me	.35	*(.48)*	0 - 1
beaten so hard at home that it left a mark or bruise	.03	*(.18)*	0 - 1
experiences of violence, ct.	1.81	*(1.77)*	0 - 7
Current equitable decision-making, prop. deciding equally			
regarding the children	.53	*(.50)*	0 - 1
regarding money spent on food & clothing	.51	*(.50)*	0 - 1
regarding money spent on large investments	.52	*(.50)*	0 - 1
current equitable decision-making, ct	1.56	*(1.28)*	0 - 3
Attitudes about Masculinity, prop. agreeing			
if someone insults you, you will your defend reputation, w/ force if needed	.68	*(.47)*	0 - 1
to be a man, you need to be tough	.96	*(.20)*	0 - 1
you think a woman should obey her husband	.93	*(.25)*	0 - 1
you think that a man should have the final say in all family matters	.71	*(.45)*	0 - 1
you think that a woman cannot refuse to have sex w/ her husband	.51	*(.50)*	0 - 1
if a wife does something wrong her husband has the right to punish her	.87	*(.34)*	0 - 1
current attitudes about masculinity, ct.	4.67	*(1.28)*	0 - 6
Dowry at marriage (ref: no)	.23	*(.42)*	0 - 1
No. of children, ct	2.02	*(1.32)*	0 - 13
Couple's age difference, *M* yrs	8.91	*(6.77)*	-9 - 48
Grades of schooling completed, *M* yrs	6.35	*(5.17)*	0 - 22

ABBREVIATIONS: avg = average; ct = count; IPV = intimate partner violence; M = mean; ref = reference group (= 0) in binary variable.

Table 2 presents bivariate correlations for all individual-level variables. Characteristics of the 114 sample communities are summarized in Table 3, based on sample men living in those communities. Overall, we found that parental decision-making in communities was significantly correlated with community measures of masculinity norms and educational attainment, but not whether the community was classified as urban or rural.

Table 2. ***Unweighted Correlations of Individual-Level Covariates (N = 1,499), Bangladesh, 2011***

Measure	1	2	3	4	5	6	7	8	9
1. Physical IPV perpetration, ct (0–5)	–								

2. Childhood equitable decision-making, ct (0–3)	-.10***	–						
3. Experiences of violence, ct (0–7)	.33***	-.12***	–					
4. Current equitable decision-making, ct (0-3)	-.06*	.32***	-.15***	–				
5. Attitudes about masculinity, ct (0-6)	.17***	-.03	.08**	-.11***	–			
6. Couple's age difference, *M* yrs.	-.01	-.01	.02	-.03	.10***	–		
7. Schooling complete, *M* yrs.	-.24***	.02	-.07**	.03	-.36***	-.10***	–	
8. Dowry at marriage (ref: no)	.21***	-.02	.08**	.01	.14***	.04	-.30***	–
9. Number of children, ct (0-13)	.18***	-.02	-.05	.15***	.12***	.10***	-.33***	.08***

NOTE: Possible ranges are in parentheses.
ABBREVIATIONS: ct = count; *M* = mean; ref = reference category in binary variable (= 0); yrs = years.
$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$ (two-tailed).

Table 3. ***Unweighted Characteristics of Sample Communities (N = 114), Bangladesh, 2011***

Measure	M	*SE*	Obs. Range	1	2	3	4
1. Current equitable decision-making, avg ct (0–3)	1.57	*0.48*	0.45 – 2.93	–			
2. Masculinity norms, avg ct (0–6)	4.59	*0.49*	2.89 – 5.48	-.27***	–		
3. Grades of schooling completed, *M yrs*	6.37	*2.97*	1.42 – 14.45	.17***	-.59***	–	
4. Urban, avg. prop. in region (ref: rural)	0.47	*0.50*	0.00 – 1.00	.01	-.42***	.63***	–

NOTE: Possible score ranges are in parentheses.
ABBREVIATIONS: avg = average; ct = count; *M* = mean; Obs. Range = observed range; ref = reference category in binary variable (= 0); yrs = years.
$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$ (two-tailed).

Multilevel Results

Table 4 summarizes the multivariate results where all coefficients are presented as incidence rate ratios (IRRs), or the ratios of expected physical IPV perpetration types. The regression coefficients provide the magnitude of the log of expected counts. An initial unconditional model confirms that an individual man's propensity to perpetrate physical IPV differs significantly from zero and varies across communities. It is expected that 95% of communities will have logs of expected counts of IPV perpetration between 0.10 and 0.18. Expressed as incidence rate ratios, the range is from 1.10 to 1.20. Model 1 tests H1, where witnessing more equitable decision-making in one's childhood home was expected to be negatively associated with physical IPV perpetration in adulthood. Indeed, a negative relationship between parental equity in decision-making and IPV perpetration was observed, above and beyond a known predictor—experience of violence in childhood (coef. = .07; IRR =

0.92; $p<.01$). This relationship remained significant across all subsequent models (IRR = 0.92-0.93).

In a subsequent sensitivity analysis, we recoded the decision-making measure to reflect equitable decision-making plus unilateral decision-making by the mother (1) versus father's decision making alone (0). This measure therefore reflected the participant's exposure to a marital relationship where the woman had decision-making power either unilaterally or in concert with the father. We found that this measure was significantly associated with a decrease in IPV perpetration in a bivariate analysis (coef. = -0.05; $p<.05$). However, the association did not maintain after accounting for all covariates. We also recoded the decision-making measure to reflect unilateral decision-making by the mother (1) versus all other responses (0). We did not find a significant relationship with IPV perpetration in bivariate or multivariate analyses. This suggests that there is a unique relationship between equitable decision-making in the home and IPV perpetration.

Table 4. ***Multilevel Negative Binomial Regression of Physical IPV Ever-Married Men (18–49 years, N = 1,499, 114 communities), Bangladesh, 2011***

	Physical IPV Perpetration							
Model	1		2		3		4	
Parameter	IRR	(SE)	IRR	(SE)	IRR	(SE)	IRR	(SE)
Intercept ($\hat{\gamma}_{00}$)	1.02	(.05)	1.02	(.05)	1 .00	(.04)	0.99**	(.23)
Individual-level exposure[b]								
childhood equitable decision-making, ct ($\hat{\gamma}_{10}$)	0.92**	(.02)	0.92**	(.02)	0.92**	(.02)	0.93**	(.02)
Community-level exposure[a]								
current equitable decision-making, avg ct ($\hat{\gamma}_{01}$)			0.87	(.08)	0.94	(.08)	1.02	(.08)
Individual-level covariates[b]								
experiences of violence, ct ($\hat{\gamma}_{20}$)	1.22***	(.02)	1.22***	(.02)	1.21***	(.02)	1.20***	(.02)
current equitable decision-making, avg ct ($\hat{\gamma}_{30}$)			1.01	(.03)	1.02	(.02)	0.98	(.03)
attitudes about masculinity, ct ($\hat{\gamma}_{40}$)					1.12***	(.03)	1.08**	(.03)
couple's age difference, *M* yrs ($\hat{\gamma}_{50}$)							0.99**	(.00)

schooling completed, *M* grades ($\hat{\gamma}_{60}$)				0.98** (.01)
dowry at marriage, ref: no ($\hat{\gamma}_{70}$)				1.48*** (.10)
no. of children, ct ($\hat{\gamma}_{80}$)				1.15*** (.03)
Community-level covariates[a]				
masculinity norms, avg ct ($\hat{\gamma}_{02}$)			1.40*** (.12)	1.31** (.11)
schooling completed, *M* grades ($\hat{\gamma}_{03}$)				0.94*** (.02)
urban, avg prop, ref: rural ($\hat{\gamma}_{04}$)				1.56*** (.14)
Residual Variance	0.10 (.03)	0.09 (.03)	0.07 (.02)	0.04 (.02)
Dispersion	-1.07*** (.18)	-1.06*** (.18)	-1.13*** (.18)	-1.46*** (.23)

NOTE: Standard errors are in parentheses below parameter estimates.
ABBREVIATIONS: avg = average; ct = count; IRR = incidence rate ratio; *M* = mean; no. = number; prop = proportion; ref = reference category in binary variable (=0); SE = standard error; yrs = years.
[a]Grand-mean centered. [b]Group-mean centered.
*p < .05; **p < .01; ***p < .001 (two-tailed)

Model 2 tests H2, predicting a negative association between norms of equitable decision-making in current communities and physical IPV perpetration. A significant association for the level-2 predictor of current equitable decision-making was not found and H2 was not supported. In Model 3, both attitudes about masculinity and community norms of masculinity were positively associated with physical IPV perpetration, net of controls. In Model 4, all individual-level covariates were significantly related to IPV perpetration. Both experience of gender equitable parental decision-making in childhood and experience of violence remained significantly associated with IPV perpetration in Model 4.

DISCUSSION

The results suggest that witnessing gender equitable parental decision-making in childhood between parents is negatively associated with the likelihood of physical IPV perpetration later in life. This relationship is stable after accounting for individual- and community-level influences related to IPV perpetration such as violence exposure in childhood, attitudes and norms of masculinity, and a range of demographic factors. Although living in a

community with more gender equitable parental decision-making as an adult was significantly associated with IPV perpetration in bivariate analyses (IRR = 0.86; p <.05), the association was mitigated once covarying influences were included. Therefore, the findings provide support for H1, but not H2. While the modest relationship between equitable parental decision-making and IPV perpetration does not preclude other well-known risk factors for IPV such as exposure to violence in the home, the results point to a potentially important protective factor that may serve to decrease IPV perpetration in the face of other leading risks.

The results provide support for a gendered process of social learning in childhood (Hearn, 1998), where boys who witness equitable decision-making practices between parents may internalize norms of equity among partners and be less likely to engage in violence against their own partners as adults. Notably, gender equitable decision-making between parents remained significantly associated with IPV perpetration, even after accounting for experiences of violence in childhood. This finding supports the notion that households are not necessarily solely "equitable" or "violent," but rather that a boy may observe and internalize both types of parental behavior over the course of his childhood (Author, 2017; Connell, 1996; Hearn, 1998).

Implications for Research and Intervention

The relevance of both risk and protective factors related to decision-making and violence exposure as determinants of IPV perpetration has consequences for future research. Researchers should continue to assess prosocial learning factors related to family life that may include equitable participation in household work, gender dynamics between brothers and sisters, sharing of financial responsibilities, and forms of mutual respect between mothers and fathers (Heath, 2014; Hoffman & Edwards, 2004). Although the results do not support an association between a man's current community-level equitable decision-making exposure and his IPV perpetration,

future research should consider additional practical conventions of gender equity in the community that protect against future violence. These conventions may include promoting gender equitable relations in labor markets, political institutions, and civil society. These protective factors may be especially pertinent for men living in communities in Southeast Asia, Africa, and the Middle East, where the prevalence of IPV is especially high (Devries et al., 2013).

Recent research in Southeast Asia suggests that intervention strategies to reduce men's IPV perpetration should focus on decreasing children's experience of violence in the home and shifting attitudes and norms of masculinity at the individual- and community-levels (Johnson & Das, 2008; Authors, 2015; Authors, 2016; Authors, 2017). However, little is known about how to change norms of masculine dominance (Authors, 2016). In patriarchal settings, efforts to empower women and to address IPV initially may alienate men, making women more vulnerable to violent backlash by men (Ellis & DeKeseredy, 1997; Hardesty, 2002; Authors, 2017). Our findings may point to a less-controversial entry point for involving men in programs within such a context that emphasizes partner collaboration rather than a complete change in norms. Interventions promoting gender equity in the family are likely to benefit the next generation through their influence on children, as well as the current generation of adults in relationships, by reducing conflict and violence, improving marital accord, and bolstering equitability among women and men (Authors, 2016).

Certain programs have been identified as effective for bringing about more equitable gender norms in low- and middle-income countries (Lundgren & Amin, 2015). Community-based programs leverage community mobilization, equitable gender norms marketing, and sports to decrease tolerance for IPV. For example, "Program H" was founded in Brazil and expanded to

India, Tanzania, Vietnam, Croatia, and a number of countries in South America to promote gender equitable attitudes and behaviors in young men (Lundgren & Amin, 2015). Sports programs that seek to change norms of masculinity for boys and young men have also demonstrated promising initial results. Implemented in countries that include Chile, Mexico, Argentina, and India, some of these interventions have changed attitudes towards violence while others have been effective in reducing actual violent behavior against women (Lundgren & Amin, 2015; Miller et al., 2013). Finally, "Stepping Stones," a gender-transformative initiative that has been implemented in South Africa and India, has shown that intended outcomes of interventions designed to change gender norms may ultimately be achieved not necessarily within a year after implementation, but later on (Jewkes et al., 2008). Taken together, the results of these interventions contribute hopeful insight to a norms-based intervention strategy and the literature on time-lag intervention success by suggesting that the promotion of gender equitable decision-making in households may positively support a reduction of IPV perpetration that extends to the next generation (Babcock, Green, & Robie, 2004).

Limitations and Strengths

Our cross-sectional sample was limited to two regions in Bangladesh, Dhaka (urban) and Matlab (rural), so the results should not be generalized beyond this scope. However, the present work corroborates and extends prior work in these regions (Authors, 2015; Authors, 2016; Authors, 2017) and nationally (Authors, 2017). The data are based on self-report measures and are subject to recall and social desirability bias. Although personal digital assistants (PDA's) were used to ask respondents about their own behavior, reporting of IPV perpetration and masculinity attitudes still may be subject to such biases.

Although we take caution to frame findings as associational, the retrospective account of factors related to the respondents' childhoods such as experience of violence and witnessing gender equitable parental decision-making provides some tentative support for temporal ordering. Longitudinal research is needed to confirm any causal inferences related to the theorized processes outlined here since ordering relies on retrospective reports. The respondent's reports of their parents' decision-making processes may have been influenced by their own personal beliefs or current parenting practices. On one hand, someone in an equitable relationship may be more likely to recall the equitability of their own parents' relationship. Conversely, those currently in less equitable relationships may recall similar characteristics of their parents' relationship growing up. Thus, caution is needed when interpreting retroactive accounts. Future studies should examine the decision-making processes between parents from both the perspective of the child and the parents over time.

Our decision-making scales are comprised of only three items available in the survey. Decision-making dynamics should be measured with as much detail as possible to include not only the equitability of making certain decision in the home, but also how conflict is resolved when parents disagree. This measurement may be aided by observing both discordance and concordance in husbands' and wives' responses to questions about who makes decisions in the home (Story & Burgard, 2012). In addition, our community-level measurement of equitable decision-making may have been difficult to observe given the influence of social desirability bias. The measure used here may be a partial reflection of people's incorrect perceptions of how others behave, although perceived norms have been shown to be more impactful than statistical norms for their influence on behavior (Tankard and Paluck, 2016). The lack of support for H2 may be due, in part, to the limited measures available for community norms of decision-making

practices. Attitudinal questions used to measure masculinity norms in the community may also be influenced by similar social desirability biases.

Both levels of gender equitable parental decision-making capture decision-making as it relates to the parental relationship. However, homes in Bangladesh may include multiple generations of a family unit that influence the household distribution of chores, decision-making practices, and power hierarchies in the home. Although the present study focuses on parental dynamics, future research should consider decision-making dynamics among extended family members in the home. Given the sample size and limited variance in IPV perpetration explained by the decision-making measure in the home, we expect a more robust relationship might be found with a measure that accounts for more types of decisions as well as decision-making among extended family members.

Men are likely embedded in multiple communities outside the family and related to life in their villages. The use of formal social network analysis in future studies would be a powerful means to illustrate how different networks in the home and the community influence decision-making processes and IPV perpetration. Finally, there were no community-level variables in the data set regarding religious involvement or delinquent peer association, both of which may be correlated with the exposures and outcomes of interest. Future studies should seek to include these additional community-level factors as covariates where available.

Despite these limitations, this study offers numerous contributions. The data offer novel multilevel insight into the experiences of gender-based violence perpetration for men living in rural and urban areas of Bangladesh. Though the sample size was reduced to 1,499 given the exclusion of unmarried men and small amounts of missing data, the data still provide adequate capacity to test our hypotheses. Although a growing body of work continues to examine the risk

factors for perpetrating violence against women, much of this work is still concentrated in the United States and research tends to focus on women's experience of IPV rather than men's perpetration. This study, and related recent research on global IPV (Devries et al., 2013; Jewkes 2002), helps to assess differences in risk and opportunities for intervention across global contexts. Research on men's perpetration of IPV has been particularly limited in Bangladesh. Given persistent gender inequality and higher-than-global average rates of violence against women in the country, this study offers important insights into how to combat IPV (Devries et al., 2013).

Conclusion

A gendered social learning approach to violence perpetration that accounts for the ways that boys and young men are socialized to deal with conflict with female partners is crucial for understanding ways of reducing future perpetration. Given that violence against women is a crucial problem around the world, an increased focus on protective factors that can reduce a man's risk of perpetrating violence provides new avenues for research and intervention. Although the etiology of violence is complex, this research provides a positive direction for future studies that can inform interventions for the reduction of violence against women in Bangladesh and around the world.

REFERENCES

Akers, R. L. (1985). *Deviant behavior: A social learning approach*. Belmont, CA: Wadsworth.

Allendorf, K. (2010). The quality of family relationships and use of maternal health-care services in India. *Studies in Family Planning, 41*(4), 263-276. doi: 10.1111/j.1728-4465.2010.00252.x

Anwary, A. (2015). Construction of hegemonic masculinity: Violence against wives in Bangladesh. *Women's Studies International Forum, 50*, 37-46. doi: 10.1016/j.wsif.2015.02.011

Babcock, J. C., Green, C. E., & Robie, C. (2004). Does batterers' treatment work? A meta-analytic review of domestic violence treatment. *Clinical Psychology Review, 23*(8), 1023-1053. doi: http://dx.doi.org/10.1016/j.cpr.2002.07.001

Bandura, A. (1978). Social learning theory of aggression. *Journal of Communication, 28*(3), 12-29. doi: http://dx.doi.org/10.1111/j.1460-2466.1978.tb01621.x

Bangladesh Bureau of Statistics. (2016). Report on violence against women (VAW) survey 2015. Dhaka: Bangladesh Bureau of Statistics.

Bartley, S. J., Blanton, P. W., & Gilliard, J. L. (2005). Husbands and wives in dual-earner marriages: Decision-making, gender role attitudes, division of household labor, and equity. *Marriage & Family Review*, *37*(4), 69-94. doi: https://doi.org/10.1300/J002v37n04_0

Bernstein, D. P., Stein, J. A., Newcomb, M. A., Walker, E. Pogge, D., Ahluvalia, T., Stokes, J.,…Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect, 27*,169-90. doi: 10.1016/S0145-2134(02)00541-0

Breiding, M., Basile, K. C., Smith, S. G., Black, M. C., & Mahendra, R. R. (2015). Intimate partner violence surveillance: Uniform definitions and recommended data elements, Version 2.0. Atlanta (GA): National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H.K. (2012). A systematic review of risk factors for intimate partner violence. *Partner Abuse, 3*(2), 231-280. doi: http://dx.doi.org/10.1891/1946-6560.3.2.e4

Coker, A. L., Smith, P. H., McKeown, R. E., & King, M. J. (2000). Frequency and correlates of intimate partner violence by type: Physical, sexual, and psychological battering. *American Journal of Public Health, 90*(4), 553. doi: http://dx.doi.org/10.2105/AJPH.90.4.553

Connell, R. W. (1987). *Gender and power*. Sydney, Australia: Allen and Unwin.

Connell, R. W. (1996). *Teaching the boys: New research on masculinity, and gender strategies for schools*. Teachers College, Columbia University.

Connell, R. W. (2005). *Masculinities*. Cambridge, UK: Polity.

Connell, R. W., & Messerschmidt, J. W. (2005). Hegemonic masculinity: Rethinking the concept. *Gender & society*, *19*(6), 829-859. doi: 10.1177/0891243205278639

Das, M. B., Amin, S., Johnson, K., & Hossain, A. (2008). Whispers to voices: Gender and social transformation in Bangladesh. Bangladesh Development Series Paper No. 22. Washington, D.C.: World Bank.

Devries, K. M., Mak, J. Y., Garcia-Moreno, C., Petzold, M., Child, J. C., Falder, G., ... & Pallitto, C. (2013). The global prevalence of intimate partner violence against women. *Science*, *340*(6140), 1527-1528. doi: http://dx.doi.org/10.1126/science.1240937

Dutton, D. G. (1995). *The domestic assault of women: Psychological and criminal justice perspectives*. Vancouver, British Columbia: UBC Press.

Ehrensaft, M. K., Cohen, P., Brown, J., Smailes, E., Chen, H., & Johnson, J. G. (2003). Intergenerational transmission of partner violence: a 20-year prospective study. *Journal of Consulting and Clinical Psychology*, *71*(4), 741.

Ellis, D., & DeKeseredy, W. S. (1997). Rethinking estrangement, interventions, and intimate femicide. *Violence Against Women*, *3*(6), 590-609. doi: http://dx.doi.org/10.1177/1077801297003006003

Enders, C. K., & Tofighi, D. (2007). Centering predictor variables in cross-sectional multilevel models: a new look at an old issue. *Psychological Methods*, *12*(2), 121. doi: http://dx.doi.org/10.1037/1082-989X.12.2.121

García-Moreno, C., Pallitto, C., Devries, K., Stöckl, H., Watts, C., & Abrahams, N. (2013). *Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence*. Executive summary. World Health Organization.

Goldstein, H. (1995). *Multilevel statistical models* (2nd ed.). New York, NY: Wiley.

Grusec, J. E., Goodnow, J. J., & Kuczynski, L. (2000). New directions in analyses of parenting contributions to children's acquisition of values. *Child Development*, *71*(1), 205-211. doi: 10.1111/1467-8624.00135

Gupta, J., Willie, T. C., Harris, C., Campos, P. A., Falb, K. L., Moreno, C. G., ... & Okechukwu, C. A. (2018). Intimate partner violence against low-income women in Mexico City and associations with work-related disruptions: a latent class analysis using cross-sectional data. *J Epidemiol Community Health*, *72*(7), 605-610.

Hardesty, J. L. (2002). Separation assault in the context of postdivorce parenting: An integrative review of the literature. *Violence Against Women, 8*(5), 597–625. doi: http://dx.doi.org/10.1177/107780120200800505

Hearn, J. (1998). *The violences of men: How men talk about and how agencies respond to men's violence to women*. Thousand Oaks, CA: Sage.

Heath, R. (2014). Women's access to labor market opportunities, control of household resources, and domestic violence: Evidence from Bangladesh. *World Development*, *57*, 32-46. doi: https://doi.org/10.1016/j.worlddev.2013.10.028

Heilman, B.. & Barker, G. (2018). *Masculine norms and violence: Making the connections*. Washington, DC: Promundo-US.

Heise, L. L. (1998). Violence against women: An integrated, ecological framework. *Violence Against Women, 4*(3), 262-90. doi: http://dx.doi.org/10.1177/1077801298004003002

Heise, L. L., & Kotsadam, A. (2015). Cross-national and multilevel correlates of partner violence: an analysis of data from population-based surveys. *The Lancet Global Health*, *3*(6), e332-e340. doi: https://doi.org/10.1016/S2214-109X(15)00013-3

Hindin, M. J., Kishor, S., & Ansara, D. L. (2008). Intimate partner violence among couples in 10 DHS countries: predictors and health outcomes. DHS Analytical Studies No. 18. Calverton, Maryland, USA: Macro International Inc.

Hoffman, K. L., & Edwards, J. N. (2004). An integrated theoretical model of sibling violence and abuse. *Journal of Family Violence*, *19*(3), 185-200. doi: https://doi.org/10.1023/B:JOFV.0000028078.71745.a2

Hosain, G. M., Chatterjee, N., Ara, N., & Islam, T. (2007). Prevalence, pattern and determinants of mental disorders in rural Bangladesh. *Public Health*, *121*(1), 18-24. doi: 10.1016/j.puhe.2006.06.018

icddr, b. (2012). Health and demographic surveillance system—Matlab, vol. 44. Registration of health and demographic events. Scientific Report 117. Dhaka, Bangladesh.

Jakupcak, M., Lisak, D., & Roemer, L. (2002). The role of masculine ideology and masculine gender role stress in men's perpetration of relationship violence. *Psychology of Men & Masculinity*, *3*(2), 97. doi: http://dx.doi.org/10.1037/1524-9220.3.2.97

Jejeebhoy, S. J. (2002). Convergence and divergence in spouses' perspectives on women's autonomy in rural India. *Studies in Family Planning*, *33*(4), 299-308. doi: 10.1111/j.1728-4465.2002.00299.x

Jewkes, R. (2002). Intimate partner violence: Causes and prevention. *The Lancet, 359*(9315), 1423-29. doi: http://dx.doi.org/10.1016/S0140-6736(02)08357-5

Jewkes, R., Nduna, M., Levin, J., Jama, N., Dunkle, K., Puren, A., & Duvvury, N. (2008). Impact of stepping stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: cluster randomised controlled trial. *BMJ*, *337*, a506. doi: http://dx.doi.org/10.1136/bmj.a506

Johnson, K. B., & Das, M. B. (2009). Spousal violence in Bangladesh as reported by men: prevalence and risk factors. *Journal of Interpersonal Violence*, *24*(6), 977-995. doi: http://dx.doi.org/10.1177/0886260508319368

Kabeer, N. (1999). Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and Change, 30*(3), 435-464. doi: http://dx.doi.org/10.1111/1467-7660.00125

Kabeer, N. (2001). Conflicts over credit: re-evaluating the empowerment potential of loans to women in rural Bangladesh. *World Development, 29*(1), 63-84. doi: https://doi.org/10.1016/S0305-750X(00)00081-4

Lorant, V., Deliège, D., Eaton, W., Robert, A., Philippot, P., & Ansseau, M. (2003). Socioeconomic inequalities in depression: a meta-analysis. *American Journal of Epidemiology*, *157*(2), 98-112. doi: 10.1093/aje/kwf182

Lundgren, R., & Amin, A. (2015). Addressing intimate partner violence and sexual violence among adolescents: emerging evidence of effectiveness. *Journal of Adolescent Health*, *56*(1), S42-S50. doi: http://dx.doi.org/10.1016/j.jadohealth.2014.08.012

Messerschmidt, J. W. (2000). Becoming "real men" adolescent masculinity challenges and sexual violence. *Men and masculinities*, *2*(3), 286-307. doi: https://doi.org/10.1177/1097184X00002003003

Miller, E., Tancredi, D. J., McCauley, H. L., Decker, M. R., Virata, M. C. D., Anderson, H. A., ... & Silverman, J. G. (2013). One-year follow-up of a coach-delivered dating violence prevention program: A cluster randomized controlled trial. *American Journal of Preventive Medicine*, *45*(1), 108-112. doi: https://doi.org/10.1016/j.amepre.2013.03.007

Mumtaz, Z., & Salway, S. (2009). Understanding gendered influences on women's reproductive health in Pakistan: Moving beyond the autonomy paradigm. *Social Science & Medicine, 68*(7), 1349-1356. doi: https://doi.org/10.1016/j.socscimed.2009.01.025

Pleck, J. H., Sonenstein, F. L., & Ku, L. C. (1993). Masculinity ideology and its correlates. In S. Oskamp & M. Costanzo (Eds.), *Claremont Symposium on Applied Social Psychology, Vol. 6. Gender issues in contemporary society* (pp. 85-110). Thousand Oaks, CA: Sage.

Pulerwitz, K., & Barker, G. (2004). Measuring equitable gender norms for HIV/STI and violence prevention with young men: Development of the GEM Scale. Article scientifique non publié. *Population Council and Instituto PROMUNDO*.

Rahman, M., Hoque, M. A., & Makinoda, S. (2011). Intimate partner violence against women: Is women empowerment a reducing factor? A study from a national Bangladeshi sample. *Journal of Family Violence*, *26*(5), 411-420. doi: https://doi.org/10.1007/s10896-011-9375-3

Rydstrøm, H. (2006). Masculinity and punishment: Men's upbringing of boys in rural Vietnam. *Childhood*, *13*(3), 329-348. doi: https://doi.org/10.1177/0907568206066355

Sayem, A. M., Begum, H. A., & Moneesha, S. S. (2012). Attitudes towards justifying intimate partner violence among married women in Bangladesh. *Journal of Biosocial Science*, *44*(6), 641-660. doi:10.1017/S0021932012000223

Stewart, S. M., & Bond, M. H. (2002). A critical look at parenting research from the mainstream: Problems uncovered while adapting Western research to non-Western cultures. *British Journal of Developmental Psychology*, *20*(3), 379-392. doi: https://doi.org/10.1348/026151002320620389

Stith, S. M., Smith, D. B., Penn, C. E., Ward, D. B., & Tritt, D. (2004). Intimate partner physical abuse perpetration and victimization risk factors: A meta-analytic review. *Aggression and violent behavior*, *10*(1), 65-98. doi: http://dx.doi.org/10.1016/j.avb.2003.09.001

Stith, S. M., Rosen, K. H., Middleton, K. A., Busch, A. L., Lundeberg, K., & Carlton, R. P. (2000). The intergenerational transmission of spouse abuse: A meta-analysis. *Journal of Marriage and Family*, *62*(3), 640-654. doi: http://dx.doi.org/10.1111/j.1741-3737.2000.00640.x

Story, W. T., & Burgard, S. A. (2012). Couples' reports of household decision-making and the utilization of maternal health services in Bangladesh. *Social Science & Medicine*, *75*(12), 2403-2411. doi: https://doi.org/10.1016/j.socscimed.2012.09.017

Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised conflict tactics scales (CTS2) development and preliminary psychometric data. *Journal of family issues*, *17*(3), 283-316. doi: 10.1177/019251396017003001.

Tankard, M. E., & Paluck, E. L. (2016). Norm perception as a vehicle for social change. *Social Issues and Policy Review*, *10*(1), 181-211. doi: https://doi.org/10.1111/sipr.12022

Tran, T. D., Nguyen, H., & Fisher, J. (2016). Attitudes towards intimate partner violence against women among women and men in 39 low-and middle-income countries. *PloS one*, *11*(11), e0167438. doi: https://doi.org/10.1371/journal.pone.0167438

Van Willigen, M., & Drentea, P. (2001). Benefits of equitable relationships: The impact of sense of fairness, household division of labor, and decision making power on perceived social support. *Sex Roles*, *44*(9-10), 571-597. doi: https://doi.org/10.1023/A:1012243125641

Vlahov, D., & Galea, S. (2002). Urbanization, urbanicity, and health. *Journal of Urban Health*, *79*(1), S1-S12. doi: http://dx.doi.org/10.1093/jurban/79.suppl_1.S1

Walton-Moss, B. J., Manganello, J., Frye, V., & Campbell, J. C. (2005). Risk factors for intimate partner violence and associated injury among urban women. *Journal of community health*, *30*(5), 377-389. doi: http://dx.doi.org/10.1007/s10900-005-5518-x

Widom, C. S., & Wilson, H. W. (2015). Intergenerational transmission of violence. In *Violence and mental health* (pp. 27-45). Springer, Dordrecht. doi: http://dx.doi.org/10.1007/978-94-017-8999-8_2