

Does recollecting IPV experiences change women's preferences?

Atiya Rahman, Ben D'Exelle, Maria Isabel Santana

Pre-analysis plan

Abstract

Globally, one-third of married women experience abuse from their husbands in their lifetime. For some countries, this rate is even higher (e.g., 72.6% in Bangladesh). Intimate partner violence (IPV) creates tension, fear, and anxiety among women, which might affect women's preferences. We expect that the experience of IPV will make women more risk-averse, have lower trust in other people, and have more doubts about the future. It might also affect women's willingness to be involved in household decisions. To investigate whether the recollection of the recent experience of IPV affects women's risk preferences, time preferences, social preferences and willingness to be involved in household decisions, we will use a survey experiment with married women in Bangladesh. The survey includes a module on IPV consisting of questions on emotional, physical and sexual abuse and a video. This module will make women recollect their recent IPV experiences. To estimate the effect of the recollection of IPV on women's preferences, we will randomly change the order of the IPV module (questions+ video) and the outcome modules in the survey.

1. Research Questions and Contribution

One of the major challenges to improving individuals' well-being and economic outcomes is their weak preferences (e.g., Adam Smith, 2000 [1759]; Max Weber, 1930 [1905]). Moreover, several studies find that any adverse situation (i.e., depression of economic growth, civil war, natural disaster) makes people more risk-averse, more present biased and have lower trust in other people. (Loewenstein and Angner, 2003; Malmendier and Nagel, 2011; Voors et al., 2012; Callen et al., 2014; Cassar, Healy and Kessler, 2017). Like these contexts, intimate partner violence (IPV) also creates tension, fear, and anxiety among women, which might affect their preferences.

In this research, we aim to investigate the impacts of recollection of IPV experiences on women's preferences in Bangladesh, where the IPV rate remains very high. Moreover, we will examine the impact of recollection of IPV experiences on women's willingness to participate in intra-household decisions.

This research will contribute to the literature in a couple of ways. First, it will extend the economics literature on the effects of violence on individual preferences (Voors et al., 2012; Callen et al., 2014; Fatas et al., 2021; Moya, 2018, Jakiela and Ozier, 2019; Nasir, Rockmore, and Tan, 2017; Rockmore and Barrett, 2022; Brown et al., 2019; Tedeschi and Calhoun, 2004, Gneezy and Fessler, 2012; Grosjean, 2014; Luca and Verpoorten, 2015; Cecchi et al., 2015; Cassar et al., 2013; Bauer et al., 2014; Gilligan et al., 2014; Imas et al., 2015). In particular, this study will be the first to assess the impacts of recollection of IPV experiences on women’s risk-taking attitude, trust in other people, biasedness toward the present and willingness to make household decisions in Bangladesh.

Second, it will contribute to the existing evidence on the impact of IPV on women’s decision-making power in household issues (Zegenhagen, Ranganathan, and Buller, 2019; Friedemann-Sánchez and Lovatón, 2012; Hindin and Adair, 2002). In particular, this study will be the first to examine the impact of recollection of IPV experiences on women’s willingness to participate in intra-household decisions.

2. The Intervention

To examine the impact of recollection of IPV experiences on women’s preferences, we will remind women about their IPV experiences inspired by existing studies that use priming of recent trauma (Lerner and Keltner, 2001; Lerner et al., 2003; Callen et al., 2014).

In particular, the respondents will be asked several questions about their emotional, physical and emotional IPV experiences, after which a short video will be shown to them, which demonstrates the abuse from the husband in front of the children. The video was developed by the WE CAN Bangladesh, one of the local organisations that work to make women aware of the violence and available support to fight against violence in Bangladesh (https://www.youtube.com/watch?v=pGvY3e6t-vE&t=1s&ab_channel=wecancampaign).

The IPV-related questions and the video are jointly referred to as IPV priming. The respondents who will be primed before the outcome module are referred to as treatment, and the others are referred to as control.

3. Implementation

We will conduct this experiment with a sample of poor married women in Bangladesh, with a high IPV rate of 72.6%. Moreover, women from poorer families are at higher risk of IPV in this country (BBS, 2016).

We will implement this survey with our local partners— BRAC Institute of Governance and Development (BIGD) (data-collecting partner) and BRAC (programme-implementing partner).

BRAC—a large international organisation—has been implementing several development programmes in Bangladesh to tackle development issues, including poverty, climate migration,

and violence. BRAC will implement a comprehensive climate change resilience programme consisting of seven interventions in rural, peri-urban areas and urban slums. The beneficiaries will receive the mini-interventions based on specific selection criteria. Climate change resilience support is offered to all beneficiaries.

BIGD will collect data from eligible households for BRAC’s climate-change resilience support to evaluate this programme. BIGD will collect data on household member characteristics, occupations, income, climate change resilience, housing, socio-economic condition, economic participation and social inclusion. Moreover, they will collect information on IPV, risk, time, social and intra-household decision-making preferences; our research uses these modules. The short description of our modules of interest is as follows.

The IPV module will ask questions about IPV experiences in their lifetime and the last 12 months. The IPV-related questions will be adapted from a national survey on violence against women in Bangladesh (BBS, 2016). After these questions, the respondents will be shown a video of an example of IPV. After showing the video, participants will be asked a set of debriefing questions about their feelings after watching it (angry/fearful/anxious).

The preference module will cover risk preference (i.e., lottery game), time (intertemporal choice sequence), and social preference (i.e., donation, trust).

Finally, the intra-household decision module will include the willingness of women to participate in various household decisions.

Information on household composition, occupation, climate change resilience, etc., will be collected from all women, and they will be asked their emotional, physical and sexual IPV experiences in their lifetime and last 12 months; however, each individual will be asked one of the outcome (preference) modules¹. We will have six groups (G1, G2, and so on) to implement six sets of survey instruments.

Table 1: Survey instrument structure and content across groups

G1	G2	G3	G4	G5	G6
General*	General*	General*	General*	General*	General*
Bundle of IPV #	Risk preference	Bundle of IPV #	Time preference	Bundle of IPV #	Intra-household decision-making+Social preference
Risk	Bundle of	Time	Bundle of	Intra-household decision-	Bundle of IPV #

¹ The questions on social and intra-household decision-making preferences will be asked to the same groups since the similar scale (0-10) is being used for these two modules. It would save some time.

preference	IPV #	preference	IPV #	making+Social preference	
------------	-------	------------	-------	--------------------------	--

* General module includes household composition, occupation, climate change resilience, etc.

It includes the set of IPV questions followed by showing the priming video and eliciting debriefing questions.

We will randomly assign these six sets of survey instruments at the individual level, giving us more power to detect the treatment (i.e., IPV priming) effect.

4. Sample

As mentioned earlier, the data will be collected through a survey implemented by BIGD to collect pre-intervention data to evaluate BRAC’s climate change resilience programme. This programme consists of seven mini-projects designed for women, men, adolescents, and youth from rural, peri-urban areas and urban slums of Bangladesh. The basic participant selection criteria are similar across projects. These criteria include (i) economic vulnerability²; (ii) climate change returnee migrants at risk of replacement or climate change vulnerable migrants; and (iii) the COVID-19-induced new poor who fell below the poverty line because of this pandemic. BIGD will randomly select the sample consisting of women, men, adolescents, and youth from the BRAC programme’s target population.

Our sample of interest is married women interviewed in this survey. This survey includes about 2000 women. The questions of our proposed modules will be asked to this group only.

5. Analysis

This section explains the outcomes of interest followed by the estimation strategy.

Outcomes of Interest

Following the Global Preference Survey (GPS) analysis, we will focus on the following measures.

Risk preferences

To measure risk aversion, we will ask 31 questions for quantitative and 1 question for qualitative measures (i.e., self-reporting risk-taking behaviour) (Falk et al., 2018). The quantitative measure consists of 31 questions with two options, a 50% chance of receiving the full amount or a sure

² A common selection criterion of BRAC participants is having a household income below the poverty line (i.e., PPP \$1.09 per day per person as of 2022, estimated by the World Bank), considered a measure of economic vulnerability.

payment. For each question, the sure payment varies. The qualitative measure consists of self-assessed risk-taking behaviour on a scale of 0-10, with 10 referring to the strongest willingness.

Time preferences

To measure impatience, we will ask 31 questions for quantitative and 1 question for qualitative measures (i.e., willingness to wait) (Falk et al., 2018). The quantitative measure consists of 31 questions with two options, a payment today or a larger payment in 12 months. For each item, the future payment varies. The qualitative measure consists of the self-assessed patience level on a scale of 0-10, with 10 referring to the highest patience.

Positive reciprocity

To measure positive reciprocity, we will ask two questions as follows: (i) preference (in monetary form) for offering a gift in exchange for help and (ii) self-assessment about willingness to return a favour. Both questions will be assessed on a scale of 0-10, with 10 referring to the strongest willingness.

Negative reciprocity

To measure negative reciprocity, we will use three questions to elicit their willingness (measured on a scale of 0-10, with 10 referring to the strongest willingness) to (i) take revenge, (ii) punish themselves for unfair behaviour, and (iii) punish someone for unfair behaviour.

Trust

We will ask one question to measure trust level by asking to what degree they believe people have only the best intentions on a scale of 0-10, with 10 referring to the highest belief.

Altruism

We will use two questions on the donation: (i) how much of an unexpected monetary gain they want to donate and (ii) self-assessment of willingness to donate on a scale of 0-10, with 10 referring to the strongest willingness.

We will construct indices using these measures following Falk et al. (2018). In particular, we will have three indices: risk, time and social (including reciprocities, trust and altruism). They use weight for each question of an index. The sum of the weights needs to be one for each index. Therefore, if there are multiple items under one weight (i.e., multiple draws to measure risk aversion), the weight is equally distributed among the items.

The steps to construct an index are as follows; i. compute the z-scores of each survey item at the individual level, (ii) weigh these z-scores using the weights (reported in column 6 of Table A1),

and (iii) sum the weighted z-scores for each index. For example, risk-aversion index= (0.01525 X z-score of draw 1)+ (0.01525 X z-score of draw 2)+.....+ (0.01525 X z-score of draw 31)+ (0.527 X z-score of self-assessed item).

Our list of outcomes also includes intra-household decision-making preferences. To elicit these preferences, we will adapt and expand the standard module of DHS on women’s participation in household decisions (NIPORT and ICF, 2020). For example, while the DHS bundles all household major decisions together within one question, we will separate these decisions into more specific domains. In particular, we will ask women whether they are willing to make decisions regarding (i) household daily expenses; (ii) food consumption; (iii) how their individual earnings will be spent, (iv) household saving decisions (where to save/how to spend savings) (v) children’s education; (vi) marriage of children; (vii) medical treatment of household member; (viii) Visits to family or relatives; and (ix) own health care. Their response will be coded on a scale of 0-10, with 10 referring to a stronger willingness

Estimation Strategy

To estimate the impact of IPV priming on individual preferences, we will estimate the following regression using OLS,

$$y_i = \alpha + \beta X_i + M_i \theta + \epsilon_i \quad \dots (1)$$

Where, y_i is the individual preference for woman i , X_i is the treatment variable which is a binary variable taking a value of 1 if the IPV module is elicited before the outcome module (referred to as treatment) and 0 otherwise (referred to as control). M_i is a set of control variables. The control variables include the set of variables which is expected to affect the economic preferences, for example, age, education, employment status, household wealth, etc. (Tanaka, Camerer, and Nguyen, 2010). The assigned BRAC project for the respective women is also considered one of the control variables. ϵ_i is an error term. β captures the impact of IPV priming on outcomes.

We will run equation (1) for three sets of the outcome, including i. risk-taking, ii. impatience, and iii. trust and willingness to make household decisions. For the first set of outcomes, we will run the equation for G1 (treatment group for this set) and G2 (control group for this set); for the second set, the observation will cover G3 (treatment group for this set) and G4 (control group for this set). And finally, G5 (treatment group for this set) and G6 (control group for this set) will be used for the third set of outcomes.

We will also run a heterogeneity analysis using the interaction of treatment and different forms of IPV (physical, emotional, and sexual). Since we randomise the order of the survey modules, we will test whether the change in the order affects IPV reporting between the treatment and control groups. The homogeneous reporting of IPV between treatment and control groups is required to have unbiased estimates of heterogeneity analysis because any measurement error leads to the issue of endogeneity (Bound, Brown and Mathiowetz, 2001). Therefore, we will do the balance test between treatment and control groups in terms of IPV reporting.

$$I_{1i} = \alpha + \beta_1 X_i + \epsilon_i \dots (2i)$$

$$I_{2i} = \alpha + \beta_1 X_i + \epsilon_i \dots (2ii)$$

$$I_{3i} = \alpha + \beta_1 X_i + \epsilon_i \dots (2iii)$$

Where, I_{1i} is the binary variable taking the value of 1 if any physical abuse experienced ever, I_{2i} is the binary variable taking the value of 1 if any emotional abuse experienced ever, and I_{3i} is the binary variable taking the value of 1 if any sexual abuse is experienced ever by the respective woman³. Each of these three equations will be run for three sets of outcomes. For instance, we will estimate whether there is a significant difference between G1 and G2 in terms of physical IPV using equation (2i) whether X_i will take the value of 1 for G1 and 0 for G2. Similarly, we will estimate whether there is a significant difference between G3 and G4 in terms of physical IPV using equation (2ii) whether X_i will take the value of 1 for G3 and 0 for G4.

If there is no difference between treatment and control groups in terms of IPV prevalence, we will run the following regression.

$$y_i = \alpha + \beta_1 X_i + \beta_2 X_i * I_{1i} + \beta_3 X_i * I_{2i} + \beta_4 X_i * I_{3i} + \beta_5 I_{1i} + \beta_6 I_{2i} + \beta_7 I_{3i} + M_i \theta + \epsilon_i \quad (3)$$

We will also run equation (3) separately for three sets of outcomes.

If they are not balanced, we will use quasi-experimental including instrument variable (IV) analysis or propensity score matching method.

³ For this analysis, we will use the major items on physical (10 items), emotional (7 items) and sexual (4 items) abuses of the national survey.

Moreover, we will do heterogeneity analysis using the interaction term of the respondent's age, level of education, employment and duration of marriage. These can vary the treatment effects. For example, the older respondents might have a higher treatment effect because they might have more experience. Less educated women might have a higher treatment effect because they might already feel low because of less education.

References

- Bauer, M., Cassar, A., Chytilová, J., and Henrich, J. (2014). War's enduring effects on the development of egalitarian motivations and in-group biases. *Psychological Science*, 25(1), 47-57.
- Bound, J., Brown, C. and Mathiowetz, N (2001) "Chapter 59-Measurement error in survey data," *Handbooks of Econometrics*, 5, 3705-3843
- Brown, R., Montalva, V., Thomas, D., and Velásquez, A. (2019) Impact of Violent Crime on Risk Aversion: Evidence from the Mexican Drug War. *The Review of Economics and Statistics*, 101 (5): 892–904.
- Callen, M., M. Isaqzadeh, J. D. Long, and C. Sprenger, "Violence and Risk Preference: Experimental Evidence from Afghanistan," *American Economic Review*, 104 (2014), 123–148.
- Cassar, A., Grosjean, P., and Whitt, S. (2013.). Legacies of violence: Trust and market development. *Journal of Economic Growth*, 18(3), 285-318.
- Cecchi, F., Leuvel, K., Voors, M., and van der Wal, L. (2015). "Civil war exposure and competitiveness: Experimental evidence from the football field in Sierra Leone," *Economic Development and Cultural Change*, 64(3), 405-435.
- Falk, A., Becker, A., Dohmen, T., Enke, B., Huffman, D., and Sunde, U. (2018) "Global evidence on economic preferences," *Quarterly Journal of Economics*, 133 (4)
- Falk, A., Becker, A., Dohmen, T., Huffman, D., and Sunde, U. (2016) "The preference survey module: A validated instrument for measuring risk, time, and social preferences," IZA Discussion Paper No. 9674.
- Falk, A., Becker, A., Dohmen, T., Huffman, D., and Sunde, U. (2021) "The preference survey module: a validated instrument for measuring risk, time, and social preferences," *Management Science*, 0:0, 1-16.

Fatas, E., Jiménez, N., Restrepo-Plaza, L., & Rincón, G (2021) “The Behavioral Consequences of Conflict Exposure on Risk Preferences,” *Oxford Research Encyclopedia of Economics and Finance*.

Friedemann-Sánchez, G., & Lovatón, R. (2012) “Intimate partner violence in Colombia: Who is at risk?,” *Social Forces*, 91(2), 663–688.

Gilligan, M. J., Pasquale, B. J., and Samii, C. (2014) “Civil war and social cohesion: Lab- in-the-field evidence from Nepal,” *American Journal of Political Science*, 58(3), 604-619.

Gneezy, A., and Fessler, D. MT. (2012) “Conflict, sticks and carrots: War increases prosocial punishments and rewards. Proceedings of the Royal Society of London,” *Biological Sciences*, 279(1727), 219-223.

Grosjean, P. (2014) “Conflict and social and political preferences: Evidence from World War II and civil conflict in 35 European Countries,” *Comparative Economic Studies*, 56(3), 424-451.

Hindin, M. J. (2003) “Understanding women’s attitudes towards wife beating in Zimbabwe,” *Bulletin of the World Health Organization*, 81(7), 501–508.

Imas, A., Kuhn, M. A., and Mironova, V. (2015) “A history of violence: Field evidence on how trauma effects time discounting and present bias,” CESifo Working Paper No. 5338

Jakiela, P., and O. Ozier (2019) “The Impact of Violence on Individual Risk Preferences: Evidence from a Natural Experiment,” *Review of Economics and Statistics*. 101 (2019), 547–559.

Lerner, J. S., Gonzalez, R. M., Small, D. A. and Fischhoff, B. (2003) “Effects of fear and anger on perceived risks of terrorism: A national field experiment,” *Psychological Science*, 14 (2).

Lerner, J.S. and Keltner, D. (2001). Fear, anger, and risk. *Journal of Personality and Social Psychology*, 81, 146-159.

Loewenstein, D. Read, and R. Baumeister (Eds.), *Time and decision: Economic and psychological perspectives on intertemporal choice* (351–391). New York: Russell Sage Foundation Press

Loewenstein, G., and Angner, E. (2003) “Predicting and indulging changing preferences,” In G.

Luca, G., and Verpoorten, M. (2015) “Civil war, social capital and resilience in Uganda,” *Oxford Economic Papers*, 67(3), 661-686.

Malmendier, U., and Nagel, S. (2011) “Depression babies: Do macroeconomic experiences affect risk-taking?,” *Quarterly Journal of Economics*, 126(1), 373–416

Moya, A., “Violence, Psychological Trauma, and Risk Attitudes: Evidence from Victims of Violence in Colombia,” *Journal of Development Economics* 131 (2018), 15–27.

Nasir, M., Rockmore, M., & Tan, C. M. (2017) “Do the lessons from micro-conflict literature transfer to high crime areas?: Examining Mexico’s war on drugs,” *The Journal of Development Studies*, 56 (1), p. 26-44

Rockmore, M., and Barrett, C. B. (2022) “The implications of aggregate measures of exposure to violence for the estimated impacts on individual risk preferences,” *World Development*, 157.

Smith, A. (2000) “The theory of moral sentiments,” Amherst, N.Y.: Prometheus Books

Tedeschi, R. G., and Calhoun, L. G.. 2004. “Posttraumatic Growth: Conceptual Foundations and Empirical Evidence,” *Psychological Inquiry* 15 (1), 1-18.

Voors, M. J., E. M. Nillesen, P. Verwimp, E. H. Bulte, R. Lensink, and Daan P. Van Soest, “Violent Conflict and Behavior: A Field Experiment in Burundi,” *American Economic Review* 102 (2012), 941–964.

Weber, M. (1930) “The protestant ethic and the spirit of capitalism,” Tr. Talcott Parsons, preface by R.H. Tawney. London: Allen and Unwin

Zegenhagen, S., Ranganathan, M. and Buller, A. M. (2019) “Household decision-making and its association with intimate partner violence: Examining differences in men’s and women’s perceptions in Uganda,” *SSM Population Health*, 8 (2019), 100442.

Appendix

Table A1: Items of GPS

Preference	Theme	Item description	Number of items	Weight
1	2	3	4	5
Time	Patience	Intertemporal choice sequence using the staircase method	31	0.712
		Self-assessment: willingness to wait	1	0.288
Risk	Risk-taking	Lottery choice sequence using the staircase method	31	0.473
		Self-assessment: willingness to take risks in general	1	0.527
Social	Positive reciprocity	The gift in exchange for help	1	0.515
		Self-assessment: willingness to return a favor	1	0.485
	Negative reciprocity	Self-assessment: willingness to take revenge	1	0.374
		Self-assessment: willingness to punish unfair behavior toward self	1	0.313
		Self-assessment: willingness to punish unfair behavior toward others	1	0.313
	Altruism	Donation decision	1	0.635
		Self-assessment: willingness to give to good causes	1	0.365
	Trust	Self-assessment: people have only the best	1	1

		intentions		
--	--	------------	--	--

Source: Falk et al., 2018.