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Impact of witnessing abuse of their mother and childhood trauma on men's perpetration of intimate partner violence in the cross-sectional UN multi-country study on men and violence in Asia and the Pacific

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ABSTRACT

Trauma exposure and witnessing intimate partner violence (IPV) in childhood are recognised risk factors for IPV. Using the UN Multi-country Study on Men and Violence in Asia and the Pacific dataset, we describe the pathways through which they influence adult IPV perpetration.

Methods: In nine sites, from six countries, data were collected in a two-stage, randomly-selected household survey, with one man aged 18–49 years interviewed per house. 8379 interviews were completed with ever partnered men in Bangladesh, Cambodia, China, Indonesia, Papua New Guinea (Bougainville) and Sri Lanka. We present a Structural Equation Model (SEM) to understand paths through which childhood trauma and witnessing IPV impacted perpetration of physical or sexual IPV in adulthood.

Results: Among the men, 25.5% had witnessed IPV, 47.0% had perpetrated physical or sexual IPV. Both witnessing IPV and childhood trauma elevated the likelihood of such perpetration. The SEM showed four paths from witnessing IPV and childhood trauma to the latent variable for physical/sexual IPV perpetration. One was direct and three indirect. Paths were mediated by food insecurity, depression, and a latent variable measuring gender inequitable and anti-social masculinities. The masculinity variable indicators were drug use, harmful alcohol use, bullying, gang membership, fighting with other men, having sex with a sex worker and having raped a non-partner. The direct and indirect effects showed both childhood trauma and witnessing maternal IPV to be important, but childhood trauma the more so.

Conclusions: Both childhood trauma and witnessing IPV were important in driving IPV perpetration, with independent effects, however, broader childhood trauma exposure was most strongly associated. The effects were mediated by food insecurity, depression and gender inequitable and anti-social masculinities, all recognised risk factors for IPV perpetration. Thus, gender transformative IPV prevention interventions that include mental health and economic elements can mitigate the influence of these key exposures.

1. Introduction

Violence against women substantially impacts the health and well-being of women who experience it and has lifelong consequences for exposed children (Ellsberg et al., 2008; García-Moreno C et al., 2014; Oram et al., 2022). Intimate partner violence (IPV), that is physical, sexual, emotional or economic violence against a current or ex-wife or girlfriend/partner, is the most common form of violence against women perpetrated globally. Children exposed to physical, sexual or emotional abuse and neglect in childhood, are more likely to perpetrate or

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experience IPV when they have their own relationships (Fulu E et al., 2017; Gibbs et al., 2020; Jewkes, 2002; Jewkes R et al., 2017; Wadji et al., 2024; Yount et al., 2018). There are several suggested mechanisms underpinning such intergenerational cycling of violence. These are best understood as operating and intersecting at multiple levels: individual, peer, family and community. The theorisation is better developed for boys with respect to future perpetration, than for understanding how girls are more likely to experience violence themselves.

Factors driving intergenerational cycling that operate at an individual level include those that cause developmental, cognitive and mental health problems (Bayarri et al., 2011; Carpenter and Stacks, 2009; V. C. Fong et al., 2019; Lamers-Winkelman et al., 2012; Malamuth et al., 1995; Roustit et al., 2009; Trocmé, 2010). In essence, children are directly affected through trauma exposure and its effects on brain morphology, neurophysiology and mental health. Children of IPV-exposed mothers are also indirectly impacted by the IPV negatively affecting their mother's mental health, alcohol and substance use, parenting practices and harsh parenting practices (Fulu E et al., 2017). Whilst there is a need to further explicate the pathways, children who have been exposed to violence in the home exhibit more externalising problems than other children, including physical aggression, defiance, conduct disorder and hyperactivity (Vanessa C Fong et al., 2019; Jagasia et al., 2024). These all can influence the propensity for the use of violence in their own relationships, or tolerance of violence experienced. Exposed children also experience more depression and anxiety (Bayarri et al., 2011; Lamers-Winkelman et al., 2012), as well as adjustment, social behaviour, and intellectual/academic performance challenges (Supol et al., 2021). All of which have been shown to increase the propensity for the use of violence in some circumstances or reduce self-protective behaviours.

Children's experiences of being raised in homes where their mother is exposed to IPV are shaped by the impact of IPV experience on how they are parented (Bancroft et al., 2012; Greene et al., 2020). Experience of IPV may lower mothers' confidence and patience as parents, and result in difficulties with disciplining children without using harsh practices. (Lapierre et al., 2018; Levendosky and Graham-Bermann, 2001), although some mothers develop resilience and a strong positive focus on their children as a coping strategy (Fogarty et al., 2019; Greene et al., 2020). Harsh parenting by IPV-exposed mothers (Fulu E et al., 2017), often results in insecure mother/child attachment, causing children to grow up fearing intimacy, exhibit hostility or aggression within their relationships, or seeking intimacy in maladaptive ways (Bowlby, 1969; Bowlby, 1973, 1980; Marshall WL & Barbaree, 1990). When older, insecurity may result in boys or men having more dismissive and hostile attitudes towards women (Stirpe et al., 2006) and both men and women distancing from emotional relationships (Ward et al., 1997). Both of which increase conflict and tensions in relationships and can lead to violence. There is much less theorisation of fathering among IPV perpetrators, however violent parents have been observed to encourage their children to associate with more aggressive peers (Morris RE et al., 2002) and are known to more often drink heavily with impact on their families (Wilson et al., 2024).

Violence exposure in childhood can also impact subsequent exposure to violence of different types, and IPV perpetration may be through pathways mediated by peer aggression, integrally linked to adolescent and young men's ideals of masculinity. Children exposed to IPV have a greater propensity towards use, and experience, of peer violence (Jagasia et al., 2024; Karmaliani R et al., 2017) and to join gangs and other anti-social peer groups (Casey et al., 2009; Jewkes et al., 2020; Malamuth et al., 1995). Trauma-exposed and more aggressive young men seem to both aggregate as friends, and become more similar in their aggression, replacing unsatisfactory relationships at home, and often rejection by other children, with strong, like-minded peer support (Snyder J et al., 1997; Steglich et al., 2010). In a similar way, children who hang out with delinquent peers, or join gangs, as they seek power, respect and self-esteem through such connections, and engage in risky and often illicit and anti-social practices (Mathews S et al., 2015; Merrin GJ et al., 2015; Sutton, 2017). In these contexts, misogynistic and violent constructions of masculinity often hold sway, and power and respect that is sought is often used at the expense of women (Bourgois, 1996; Jewkes R & Morrell, 2017; Steinberg, 2006).

Ideas and behaviours related to the use of violence and gender are socially constructed, starting from childhood, and are strongly impactful on later expressed norms and practices. Children learn about gender norms and the use of violence against women from home, and carry such learning into their future relationships (Bandura, 1977). They also learn a range of related norms and practices about the use of alcohol and other substances, both strongly related to IPV perpetration (Wilson et al., 2024). Other structural factors that are important include the socio-economic conditions in which children are raised, as generally it is recognised that poverty is a driver of IPV, associated with lower maternal education and parenting challenges, as well as traditional social norms on gender (Gibbs, Dunkle et al., 2020; Yount, James-Hawkins et al., 2018; Greene, Haisley et al., 2020).

Despite research on intergenerational cycling of violence, there is much about the pathways and mechanisms that are not well understood, notwithstanding the fact that breaking the cycle is foundational for ending IPV. The relative importance of the exposure to witnessing IPV and childhood trauma have not been well established. There are consistent findings in relation to childhood trauma exposure, but findings in relation to maternal IPV exposure are less consistent (Fulu et al., 2013a, 2013b; Jewkes R et al., 2017; Kimber et al., 2018). A previous analysis of the UN Multi-country study in Asia and the Pacific dataset showed for men an association between witnessing abuse of his mother and subsequent perpetration of at least one type of IPV in per country analyses in four of the six countries (Fulu et al., 2013a, 2013b). However, multinomial logistic regression was used for the analysis with five categories, which may have impacted the power to describe associations, further a pooled regression analysis was not presented (Fulu et al., 2013a, 2013b). In some of the other datasets, especially earlier ones, only witnessing maternal IPV was measured, without measurement of exposure to other childhood trauma, and this may have explained the focus on associations with witnessing maternal IPV rather than childhood trauma more generally (Wadji et al., 2024). It is also possible that some of the conclusions based on datasets with lower IPV prevalence may have been a consequence of there being lower power in the study to detect an association with a smaller effect size (Jewkes et al., 2017). A systematic review also concluded that many of the available datasets for analyses of the relationship between witnessing maternal IPV and later perpetration were of low quality and non-representative samples (Kimber et al., 2018).

Our paper seeks to extend understanding of intergenerational cycling of violence, examining both the role of childhood trauma exposure and witnessing maternal IPV, in a large multi-country, representative sample survey. To maximise the power for the analysis, the full multi-country dataset has been analysed, in contrast to the approach of Fulu (Fulu et al., 2013a, 2013b). The objectives are to determine whether witnessing maternal IPV was an independent risk factor for lifetime IPV perpetration in the pooled dataset, after adjusting for childhood trauma exposure, and to determine the pathways of impact, mediating factors and comparable size of the effects of the two exposures.

The dataset of the UN Multi-country Study on Men and Violence provided an opportunity to explore some of the hypothesised associations and pathways, despite not all the variables needed to explore the pathways described being in the dataset. Within the limitations of the dataset, our paper presents a secondary analysis of data and seeks to describe the proportion of men who had witnessed abuse of their mother as a child and experienced childhood trauma, the social and demographic characteristics, depression and behaviours associated with having witnessed abuse and perpetrated IPV, and the paths through which having witnessed abuse of their mother and experience of childhood trauma impact men's IPV perpetration.

2. Methods

We conducted a secondary analysis of data from the UN Multi-country Study of Men and Violence in Asia and the Pacific (Fulu E et al., 2013). The study was developed by Partners for Prevention, a United Nations Development Programme (UNDP), United National Population Fund (UNFPA), UN Women and United Nations Volunteers (UNV) regional joint programme for gender-based violence prevention in Asia and the Pacific, in collaboration with the South African Medical Research Council and the country research teams. The first author was lead Technical Adviser for the multi-country study and Principal Investigator in Bougainville, Papua New Guinea. The second author was Principal Investigator in Bangladesh. Field research was conducted in 2011–12 in nine diverse sites in six countries in Asia and the Pacific: Bangladesh, China, Cambodia, Sri Lanka, Indonesia and Papua New Guinea (Bougainville). The sample was representative of Cambodia and the island of Bougainville. In Bangladesh there was a site in the capital city, and one provincial site. In Indonesia, there was a site in Jakarta and a rural site (Java) and site with peri-urban and rural settlements (Papua). The Chinese site was a county with a town and rural area, and in Sri Lanka, Colombo and three contrasting districts, were surveyed. Full details on the study methods, sampling, response rates, questionnaires and the findings on intimate partner violence (IPV) in these same study sites are presented elsewhere (Fulu et al., 2013a, 2013b). The sites differed greatly. They were culturally and religiously diverse, and differed in their socio-economic profile, housing conditions, political and educational systems, access to services and information, urbanity, family/kinship structures and in their history of civil conflict. All these factors influence normative expectations of what it means 'to be a man' in a given society and the possibilities of achieving these expectations, but also various stress factors that may impact on IPV perpetration.

A two-stage sampling strategy was used to identify census enumeration areas, with a probability proportionate to size, and randomly selected households within these areas. In each household, a man aged 18–49 years (where necessary, randomly selected) was invited for an interview, with a trained male interviewer. The sample comprised mostly heterosexual men, but this was not an inclusion requirement. Most interviews were face-to-face, but answers to most sensitive questions were provided by self-completion on Audio-enhanced Personal Digital Assistants (APDAs). In China a household list of individuals in each cluster by age and sex was available and so used for sampling within selected clusters and the entire questionnaire was self-completed. 10 178 men were interviewed, between 799 and 1776 per site. Among these 8379 had ever been partnered. The proportion of enumerated and eligible men interviewed per site varied between 59% and 95%, but only in urban Bangladesh and Sri Lanka was it below 80% (Fulu et al., 2013a, 2013b). The variables used in the analysis are presented in Table 1.

2.1. Statistical analysis

The datasets were combined using Stata 13.0 and analysed using Stata 17.0. Procedures took into account the multi-stage structure of the dataset, with stratification by site within a country and enumeration areas as clusters. Variables were summarised as percentages (or means), with 95% confidence limits calculated using standard methods (Taylor linearisation). To show associations between independent variables that were putative risk factors and outcomes, we first present a series of adjusted analyses (one per variable) with witnessing IPV as a child as an independent variable for each analysis, all adjusted for country. Lifetime physical or sexual IPV perpetration was the outcome in further analyses. These are adjusted for country, but otherwise are bivariable analyses. Multivariable logistic regression (in one case in Table 3, linear regression) was used. The variables selected mapped on to the known drivers of IPV (Gibbs et al., 2020) to the extent that these were available in the dataset.

Structural Equation Modelling (SEM) was conducted using MPlus to assess the interrelationship between variables associated with a latent variable for physical and/or sexual IPV. The model outcome was a lifetime IPV latent variable comprising a summative score of physical and sexual IPV questions. The gender inequitable and anti-social

Table 1
Operational definitions of variables.

Explanatory variables	Definition
Social characteristics	
Ever partnered	Derived from two questions asking about having been ever married and ever having a girlfriend
No high school	Only attended primary school or had no formal schooling.
Current food insecurity	Sometimes or often people at home go without food because of a lack of money
Employment status	Single item asking if he was employed, had been previously but not in the last year or had never worked
Victimization history and childhood	
Childhood trauma	Men were asked about their experiences of trauma before the age of 18 using a modified version of the Childhood Trauma Questionnaire.[37,38] and whether they happened never, sometimes, often or very often: experienced emotional abuse as a child (e.g. was insulted or humiliated by someone in his family in front of other people); experienced neglect as a child (e.g. parents were too drunk or drugged to take care of him); experienced physical abuse as a child (e.g. beaten at home with a belt or stick or whip or something else which was hard); experienced sexual abuse as a child (e.g. had sex with someone because he was threatened or frightened or forced). Items used as 'ever' exposed, and as a summative score of responses to questions.
Witnessed abuse of his mother	Before age 18 the respondent saw or heard his mother being beaten by her husband or a boyfriend. Used as a binary variable.
Teased or bullied others as a child	Single item asking if the respondent 'bullied, teased or harassed' others when a child. Used as a bInary variable.
Psychological factors and substance abuse	
Depression	20 item CES-D depression measure of symptoms in the past week cut point of 16+ taken as indicating a high level of depressive symptomatology.
Alcohol problems	Based on AUDIT scale: frequency of drinking currently, number of drinks usually consumed, frequency of binge drinking (6+ drinks), and feelings of guilt or remorse after drinking and failure to do what was normally expected from you because of drinking in the past year [43].
Engagement in violence outside the home and drug use	
Involvement in gangs	Has ever participated in a gang
Involved in fights with weapons	Has ever been involved in a fight with a knife, gun or other weapon
Past year drug use	Has ever used drugs in the last 12 months
Ever sex with sex worker	Respondent has ever had sex with a male, female or transgender sex worker
Violence against women:	
Non-partner rape ever	2 items asked about having 'forced a woman who was not your wife or girlfriend at the time to have sex' or having 'had sex with a woman who was too drunk or drugged to indicate whether she wanted it'. Two more asked about having done these with other men. A binary variable was derived from responses categories as ever v. never
Physical and sexual IPV	5 items on physical intimate partner violence perpetration ever were South African adaptations for men from the WHO Multi-country Study measure[2, 14]. 2 items on sexual violence against a partner asking about 'forced sex' or sex 'forced when he knew she didn't want it but believed she should agree because she was his wife/partner' (the second question was not included in Bangladesh). Each had never, once, few, many response options. Each variable was derived by summing the responses.

masculinity latent variable was constituted from binary variables for substance abuse, problem drinking, bullying, gang membership, fighting with a weapon, having had sex with a sex worker and having raped a non-partner. With the exception of bullying and problem drinking, these variables were used in definition of latent classes in this dataset in a previous analysis (Jewkes et al., 2020). Having bullied and problem drinking are well recognised practices among more gender inequitable men and strongly associated with different latent classes in the previous analysis. A measurement model was fitted, with the variables allowed to freely correlate. To assess model fit of the data, we used the comparative fit index (CFI) (>0.95); Tucker-Lewis Index (TLI) (>0.9) for acceptable fit and (>0.95) as indicative of good fit (Tucker LR & Lewis, 1973); and root mean square error of approximation (RMSEA) (of 0.05 or less) (Brown, 2006; Steiger, 1990).

We fitted a SEM, built based on theory and statistically meaningful modifications, from the exogenous variables to IPV and used backwards elimination to exclude endogenous variables that did not mediate any path (with significance set at the $p < .05$ level) from the exogenous variables to IPV, to ensure model parsimony. Model fit was good (Goodness of fit: RMSEA 0.045, CFI 0.95, TLI 0.90). The model included error covariances among the variables comprising the gender inequitable and anti-social masculinities latent variable. The indicators comprising the latent variable reflected men's practices that have been shown to track together in previous analyses, in this, and other, datasets using latent class analysis (Jewkes R & Morrell, 2017; Jewkes et al., 2020). All models were run using a full-information maximum likelihood method to deal with missing values. This method was chosen over multiple imputations as it has been shown to yield superior results in structural equation modelling (Enders CK & Bandalos, 2001). The model presented is not adjusted for age, because the dataset lacked an ideal variable as age was measured as a categorical variable in two countries, and continuous in others. We tested the model with the categorical variable for age, and found it had minimal impact on the direct and indirect effects, and resulted in a small change to the fit statistics (CFI = 0.94, TLI = 0.89 & RMSEA = 0.045), suggesting that the fit was somewhat less good, likely because age was a categorical variable. We present both standardised and unstandardised effects with their 95% Confidence Intervals.

2.2. Ethics

We followed ethical and safety guidelines for research with men on perpetration (Jewkes R et al., 2012). To protect men providing sensitive disclosure, we presented the study as a family and health study. The interviewees received an information sheet and provided signed informed consent. We did not retain identifying details of respondents. Ethical approval was provided by the Medical Research Council of South Africa; the College of Humanities, Beijing Forestry University; International Centre for Diarrhoeal Disease Research, Bangladesh; National Ethics Committee for Health Research of Cambodia; the Faculty of Medicine at the University of Colombo, Sri Lanka; and the Faculty of Medicine, Gadjah Mada University, Indonesia. The funding sources had no role in study design; in the collection, analysis, and interpretation of data; in the writing of the report; and in the decision to submit the paper for publication.

3. Results

Across all countries, 25.0% of men disclosed having witnessed abuse of their mother in their childhood (Table 2). The proportion ranged from 8.5% in Rural Java, Indonesia to 56.5% in Bougainville, Papua New Guinea. The background characteristics of the pooled sample are shown in Table 3. In all, 51.7% of the men were under 35 years. 90.7% were currently married or cohabiting. Two-thirds (67.7%) had attended high school and 88.5% were currently working. Men who had witnessed abuse in their childhood were younger than those not having done so, and less likely to have attended high school and to have ever worked. More were food insecure, depressed and drank alcohol harmfully. Many of the men had experienced abuse or neglect in childhood, with 53.7% having experienced some parental neglect, 48.3% some emotional abuse, 54.1% some physical abuse and 17.0% sexual abuse. Men who had witnessed maternal IPV in childhood were much more likely to report exposure to all forms of child abuse. 32.9% of men had ever perpetrated physical IPV and 24.3% disclosed perpetration of sexual IPV. IPV perpetration was significantly more common among men who had witnessed maternal IPV in childhood (physical IPV aOR 2.53 (95% CI 2.24, 2.85) and sexual IPV aOR 1.87 (95%CI 1.65, 2.12).

Table 2
Prevalence of witnessing maternal IPV by country and site of the ever-partnered men.

	N = 8379	Witnessed IPV N = 2098	Did not witness IPV N = 6109
Witnessed abuse of mother as a child	2134 (25.5%)		
Country/setting			
Bangladesh urban	830	197 (23.7%)	633 (76.3%)
Bangladesh rural	742	256 (34.5%)	486 (65.5%)
Cambodia	1473	347 (23.6%)	1126 (73.4%)
China	965	204 (21.1%)	761 (78.9%)
Indonesia: Urban Jakharta	820	75 (9.2%)	745 (90.8%)
Rural Java	768	65 (8.5%)	703 (91.5%)
West Papua	854	210 (24.6%)	644 (75.4%)
Papua New Guinea	738	417 (56.5%)	321 (43.5%)
Sri Lanka	1154	363 (31.5%)	791 (68.5%)

Table 4 shows a bivariable analysis of factors associated with perpetration of physical and sexual IPV. Perpetration of physical IPV was more strongly associated with being older, whereas sexual IPV was not differentially reported by age. Having attended or completed high school was associated with a lower likelihood of disclosing physical IPV perpetration, but did not influence the likelihood of disclosing sexual IPV. The wife being more educated than her husband increased the likelihood of men reporting sexual IPV perpetration. Experience of current food insecurity was associated with a greater likelihood of perpetration of both physical and sexual IPV. Both witnessing abuse of their mother and their own experience of childhood trauma increased the risk of perpetrating physical (aOR 2.52 (95% CI 2.25, 2.82) and sexual IPV (aOR 1.94 (95% CI 1.73, 2.19). There was a positive association between childhood trauma scores and physical IPV perpetration (aOR 1.24 (95% CI 1.22, 1.26)) and sexual IPV perpetration (aOR 1.19 (95% CI 1.17, 1.21)). Perpetration of both physical and sexual IPV were associated with a greater likelihood of depression and reported alcohol and drug abuse. IPV perpetration was also associated with a greater likelihood of having bullied others, fought with weapons and been in a gang, as well as a much higher likelihood of having also perpetrated non-partner rape, and of having had sex with a sex worker.

3.1. Model of paths from men witnessing abuse of their mother to perpetration of past year IPV

The SEM model had two endogenous variables, namely witnessing their mother being beaten and other childhood trauma experiences (Fig. 1). These covaried. Each variable had a direct path to IPV perpetration. The standardised coefficients for these direct paths were 0.093 (95% CI 0.059, 0.126) for witnessing IPV and 0.171 (95% CI 0.131, 0.212) for childhood trauma exposure. Examination of the total effects (direct plus indirect paths), showed that the impact of witnessing maternal IPV was about 40% of that of all other childhood trauma exposure (standardised coefficient 0.195 (95%CI 0.161, 0.229) for witnessing IPV v. 0.510 (95%CI 0.475, 0.545) for childhood trauma), indicating that it was a very important additional exposure in understanding IPV perpetration by men. The model showed that both

Table 3
Prevalence of social characteristics, mental health, IPV perpetration and childhood trauma exposures of ever-partnered men, with adjusted associations between witnessing IPV in childhood and these factors (modelled as outcomes).

	N = 8379	Witnessed IPV N = 2098	Did not witness IPV N = 6109	aOR (95% CI)*	p-value
Independent variables					
Age group					
18–24 yrs	1409 (16.8%)	408 (19.1%)	994 (16.0%)	ref	
25–34yrs	2924 (34.9%)	792 (37.1%)	2120 (34.1%)	0.84 (0.72, 0.98)	0.023
35–49yrs	4046 (48.3%)	934 (43.8%)	3096 (49.9%)	0.67 (0.58, 0.78)	<0.0001
Currently married or cohabiting	7565 (90.7%)	1915 (89.8%)	5650 (91.0%)	0.89 (0.75, 1.06)	0.185
Attended high school or higher	5645 (67.7%)	1319 (61.8%)	4326 (69.7%)	0.87 (0.77,0.97)	0.016
Employment status					
working now	7381 (88.5%)	1834 (86.0%)	5547 (89.3%)	ref**	
not in the last 12 m	493 (5.9%)	168 (7.9%)	325 (5.2%)	1.24 (0.99, 1.57)	0.063
Never worked	469 (5.6%)	131 (6.1%)	338 (5.4%)	1.31 (1.03,1.66)	0.027
Ever without food due to lack of money	2418 (29.8%)	827 (39.7%)	1591 (26.4%)	1.59 (1.40, 1.80)	<0.0001
Depression score	13.98 (SD 5.36)	14.48 (SD 6.31)	13.81 (SD 4.97)	1.76 (1.46, 2.08)***	<0.0001
Has problem drinking, based on modified AUDIT	979 (12.1%)	391 (18.8%)	588 (9.8%)	1.96 (1.72, 2.24)	<0.0001
Experienced parental neglect as a child	4468 (53.7%)	1594 (75.0%)	2874 (46.4%)	3.26 (2.87, 3.70)	<0.0001
Experienced emotional abuse as a child	4026 (48.3%)	1495 (70.1%)	2531 (40.8%)	3.39 (3.00, 3.85)	<0.0001
Experienced physical abuse as a child	4500 (54.1%)	1532 (72.0%)	2968 (48.0%)	3.31 (2.90, 3.77)	<0.0001
Experienced sexual abuse as a child	1416 (17.0%)	685 (32.1%)	731 (11.8%)	3.01 (2.63, 3.45)	<0.0001
Childhood trauma score	15.67 (SD 3.04)	17.69 (SD 3.48)	14.97 (SD 2.52)	1.35 (1.32, 1.38)	<0.0001
Lifetime physical IPV	2697 (32.9%)	1067 (51.2%)	1630 (26.7%)	2.53 (2.24, 2.85)	<0.0001
Lifetime sexual IPV	1983 (24.3%)	726 (34.6%)	1257 (20.7%)	1.87 (1.65, 2.12)	<0.0001

*** adjusted for country**
**** multinomial regression model**
***** coefficient from linear regression**

witnessing their mother being beaten and other childhood trauma experiences, had a strong positive association with IPV perpetration through paths mediated by combinations of adult food insecurity, depression and embracing practices associated with gender inequitable and anti-social masculinities. For both witnessing IPV and other childhood trauma experiences, there were indirect paths only mediated by current food insecurity, one by depression in the past week, and the others were mediated by the gender inequitable and anti-social masculinities latent variable, both as the sole mediator, and in combination with depression, or food insecurity and depression. The direct effects indirect effects and total effects are presented in Table 5. The analysis shows that the highest total effects for childhood experiences were for the path from childhood trauma to IPV perpetration (standardised coefficient 0.510 (95%CI 0.475,0.545), however the path from witnessing IPV in childhood to adult IPV perpetration was almost two-fifths of this (38.2%) (standardised coefficient 0.195 (95%CI 0.161, 0.229). The table shows that witnessing IPV in childhood had a modest influence on food insecurity (standardised coefficient 0.046 (95%CI 0.023, 0.069)) and depression (standardised coefficient 0.055 (95%CI 0.033, 0.077)), compared to the strong impact of childhood trauma exposure on both. The impact of witnessing IPV in childhood on gender inequitable and anti-social masculinities was larger (standardised coefficient 0.138 (95%CI 0.113, 0.162)), and a third (32.2%) of the standardised coefficient (0.429 (95% CI 0.405, 0.453) for childhood trauma exposure.

4. Discussion

In this very large, multi-country study, across the sites in the six countries, a quarter of men disclosed having witnessed maternal IPV when they were children. This proportion is higher than the estimate from a systematic review (16%) that included many studies from higher income populations (Whitten et al., 2024). We have shown that both men who witnessed IPV as children, and those who experienced, the often co-occurring, exposure of childhood trauma, were at much higher risk of perpetrating IPV. The SEM has shown that both witnessing IPV in childhood and experiencing other childhood trauma, such as emotional abuse and neglect, physical abuse and sexual abuse, directly elevated the likelihood of perpetrating IPV as an adult, as well as impacting through indirect pathways. The total effects of childhood trauma exposure were larger than those for witnessing IPV, which is not surprising given the large and diverse number of forms of trauma measured in the childhood trauma variable. Nonetheless the analysis has shown that witnessing IPV in childhood is an important independent exposure which elevated the IPV perpetration risk in this large multi-country sample of men.

It is likely that, at least at some level, the direct pathway from witnessing IPV in childhood to IPV perpetration reflects the social learning of the use of violence (social learning theory) (Bandura, 1977), although the path may also be mediated by unmeasured psychological health variables and contextual mediators. The mediators of the pathways – food insecurity, depression and gender inequitable and anti-social masculinities - were variables that are well recognised as associated with perpetration of IPV, in this, and other datasets with men (Fulu et al., 2013a, 2013b; Gibbs et al., 2020; James-Hawkins et al., 2018). The analysis has shown that present day food insecurity mediated paths from both witnessing IPV and experiencing childhood trauma to perpetration of IPV. The role of poverty as a risk factor for violence in general, and specifically IPV, is now well recognised, and it is likely to explain a substantial part of the high prevalence of witnessing IPV in childhood in lower resource settings. Interventions to alleviate poverty have an important role to play in IPV prevention (Gibbs et al., 2020; Kerr-Wilson A et al., 2020). Unfortunately, there were no indicators of socio-economic status in childhood in the dataset, but the role of poverty in elevating risk of childhood trauma is also well established (Hatcher et al., 2019). Thus, it is likely that the present food insecurity for many men would have been a continuation of a lifetime exposure to economic precarity.

Table 4
Bivariate analysis of factors associated with physical and sexual IPV perpetration by ever partnered men from countries in Asia and the Pacific.

		Perpetrated Physical IPV				Perpetrated sexual IPV			
Factor	Level	Yes (N = 2704) n (%)/mean (sd)	No (N = 5528) n (%)/mean (sd)	aOR (95%CI)	p-value	Yes (N = 2262) n (%)/mean (sd)	No(N = 5940) n (%)/mean (sd)	aOR (95%CI)	p-value
Age group	18–24 yrs	314 (23.8%)	1006 (76.2%)	Ref		429 (31.0%)	953 (69.0%)	Ref	
	25–34yrs	920 (31.9%)	1968 (68.1%)	1.41 (1.21,1.66)	<0.001	834 (29.0%)	2039 (71.0%)	1.06 (0.91,1.23)	0.438
	35–49yrs	1470 (36.5%)	2554 (63.5%)	1.58 (1.36,1.84)	<0.001	999 (25.3%)	2948 (74.7%)	0.91 (0.79,1.05)	0.213
Attended high school or higher	No	1035 (38.8%)	1633 (61.2%)	Ref		741 (27.9%)	1912 (72.1%)	Ref	
	Yes	1667 (30.0%)	3894 (70.0%)	0.78 (0.7,0.87)	<0.001	1519 (27.4%)	4027 (72.6%)	1.01 (0.89,1.13)	0.933
Employment status	working now	2414 (33.0%)	4895 (67.0%)	Ref		1928 (26.6%)	5320 (73.4%)	Ref	
	not in the last 12 m	174 (35.8%)	312 (64.2%)	0.99 (0.8,1.22)	0.911	187 (38.3%)	301 (61.7%)	1.10 (0.9,1.36)	0.357
	Never worked	116 (26.6%)	320 (73.4%)	0.98 (0.78,1.24)	0.891	147 (31.6%)	318 (68.4%)	1.04 (0.84,1.29)	0.693
Experienced food insecurity	No	1639 (29.2%)	3970 (70.8%)	Ref		1433 (25.2%)	4257 (74.8%)	Ref	
	Yes	985 (41.4%)	1397 (58.6%)	1.66 (1.48,1.86)	<0.001	805 (33.3%)	1616 (66.7%)	1.75 (1.55,1.98)	<0.001
Childhood trauma score		16.9 (3.4)	15.1 (2.6)	1.24 (1.22,1.26)	<0.001	16.9 (3.5)	15.2 (2.7)	1.19 (1.17,1.21)	<0.001
Witnessed abuse of mother as child	No	1630 (26.7%)	4482 (73.3%)	Ref		1445 (23.7%)	4642 (76.3%)	Ref	
	Yes	1067 (51.1%)	1022 (48.9%)	2.52 (2.25,2.82)	<0.001	817 (38.8%)	1286 (61.2%)	1.94 (1.73,2.19)	<0.001
Depression score		16.3 (5.4)	14.2 (4.6)	1.08 (1.07,1.09)	<0.001	16.2 (5.3)	14.4 (4.7)	1.08 (1.07,1.10)	<0.001
Has problem drinking	No	2156 (30.8%)	4854 (69.2%)	Ref		1690 (23.8%)	5420 (76.2%)	Ref	
	Yes	452 (47.2%)	505 (52.8%)	2.47 (2.12,2.88)	<0.001	541 (55.2%)	439 (44.8%)	2.75 (2.37,3.19)	<0.001
Any past year drug use	No	2317 (32.0%)	4919 (68.0%)	Ref		1931 (26.3%)	5410 (73.7%)	Ref	
	Yes	308 (40.1%)	461 (59.9%)	1.83 (1.53,2.2)	<0.001	311 (39.4%)	478 (60.6%)	2.14 (1.79,2.57)	<0.001
Has teased or bullied others	No	1683 (28.2%)	4289 (71.8%)	Ref		1310 (21.9%)	4661 (78.1%)	Ref	
	Yes	1011 (45.5%)	1211 (54.5%)	2.03 (1.82,2.27)	<0.001	951 (42.7%)	1277 (57.3%)	2.03 (1.82,2.27)	<0.001
Has participated in a gang	No	2283 (31.4%)	4991 (68.6%)	Ref		1792 (24.3%)	5587 (75.7%)	Ref	
	Yes	347 (46.6%)	397 (53.4%)	1.98 (1.67,2.34)	<0.001	455 (59.6%)	309 (40.4%)	3.45 (2.93,4.06)	<0.001
Has been in fight with a weapon	No	2158 (30.8%)	4852 (69.2%)	Ref		1700 (23.9%)	5400 (76.1%)	Ref	
	Yes	473 (47.0%)	533 (53.0%)	2.2 (1.9,2.56)	<0.001	546 (52.4%)	495 (47.6%)	2.68 (2.33,3.09)	<0.001
Has perpetrated non-partner rape	No	2079 (29.5%)	4965 (70.5%)	Ref		1497 (20.9%)	5658 (79.1%)	Ref	
	Yes	549 (56.6%)	421 (43.4%)	3.15 (2.7,3.67)	<0.001	752 (76.1%)	236 (23.9%)	9.04 (7.68,10.64)	<0.001
Has had sex with a sex worker	No	2077 (30.9%)	4647 (69.1%)	Ref		1644 (24.2%)	5156 (75.8%)	Ref	
	Yes	520 (43.2%)	684 (56.8%)	1.92 (1.67,2.2)	<0.001	583 (47.5%)	644 (52.5%)	3.16 (2.76,3.61)	<0.001

aOR = adjusted for country.

Depression is often associated with IPV perpetration (Nduna et al., 2010; Oram et al., 2022), and was the only form of adverse mental ill-health outcome measured in the dataset. Other forms of psychological distress, particularly commonly post-traumatic stress disorder (PTSD), complex PTSD and the adverse effects of childhood trauma exposure on personality development, are also well recognised risk factors for IPV perpetration, but these were not measured in the UN multi-country study (Oram et al., 2022; Ramsoomar et al., 2023). Harmful alcohol drinking is also an established risk factor for IPV perpetration and interestingly this pertained in our dataset, which includes many countries that have a very low prevalence of harmful drinking due to strict laws and religious prohibitions (Ramsoomar et al., 2021). The analysis also showed that men who had witnessed IPV, and been exposed to other childhood trauma types, had their risk of IPV perpetration mediated by their adoption of practices associated with more gender inequitable and anti-social masculinities. Studies from a range of other settings have similarly shown that men who perpetrate IPV, often have a cluster of risk factors linked to a more violent, gender inequitable and anti-social masculinity, which is also linked to traumatic experiences in childhood (Bourgois, 1996; Gibbs et al., 2018; Jewkes R & Morrell, 2017). Previous analyses of the dataset have shown that men who had perpetrated IPV were more likely to have engaged in a range of behaviours that are associated with the use of violence (Jewkes et al., 2020). These included bullying, gang affiliation and the related practices of having fought with a weapon, and having had relations with women in which violence or lack of consent played a key role, and men seeking sex with

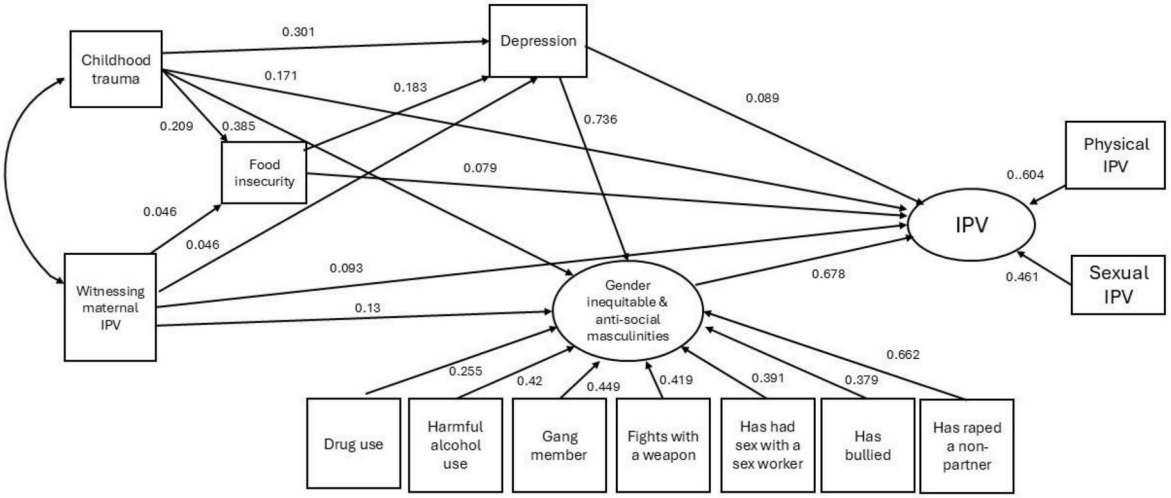

Fig. 1. Structural equation model of paths from witnessing maternal IPV and experience of childhood trauma to IPV perpetration.

sex workers. In our analysis we have extended previous quantitative research on masculinities by showing that it was possible to derive a latent variable indicative of the spectrum of hegemonic masculinity and hypermasculinity (Herek, 1987) that was built from these measured indicator practices. This has methodologically extended our understanding of the application of quantitative methods to understanding masculinities, and the role of men embracing different masculine identities and associated practices in their risk of IPV perpetration.

5. Limitations

The exposure variable witnessing abuse of their mother was a single item variable 'Before I reached 18, I saw or heard my mother being beaten by her husband or boyfriend'. We recognise that there may have been some physical IPV witnessed that would not have been reported because the word 'beaten' was used (e.g. hair pulling, slaps), that there may have been IPV experienced by men's mothers that the men may not have known about, and/or disclosed in the interview, including sexual IPV, that may have nonetheless impacted their mother in important ways (such as through impacting her mental health and parenting). Further that the question did not ask about witnessing emotional IPV and controlling behaviour. This will have resulted in an underestimation of the proportion of men who had witnessed and IPV directed against their mother. We can only speculate on its impact on the findings. It is also likely that with extended families, children may witness a range of IPV perpetrated against other family members, as well as violence from in-laws directed at women (Jewkes et al., 2019), all of which would impact social norms and learning around violence. Future research on the impact of witnessing IPV needs to employ a broader measure of the exposure. The study findings reflect the sampled sites, whether one can generalise beyond these is unclear. The combined dataset is not intended to reflect the whole Asia Pacific region. Since the research was cross-sectional, temporality may be questioned. The key exposures were 'before age 18' and most IPV would have occurred after age 18, thus clarifying the temporal relationship in respect of these variables. However, depression and food insecurity were measured for the recent period. Which raises a question of whether they were recent problems and may have followed IPV perpetration. We recognise that there is uncertainly here about the temporal sequence and are limited by the variables in the dataset. However, depression is generally recognised as a chronic problem, especially in the absence of available therapy, which would generally have been the case for the men in the study. Thus, it is reasonable to assume that for many men current depressive symptoms would be a reasonable indicator of higher levels of prior depression symptomatology. Furthermore, it is reasonable to assume limited social mobility and thus there is a strong likelihood that food insecurity in the current period would reflect an enduring problem. They are well established risk factors for IPV perpetration, which adds to our confidence about their likely role as mediators. All the indicators of masculinity are recognised as being temporarily co-manifest with IPV in other datasets.

6. Conclusions

We have shown that exposure to childhood trauma and exposure to maternal IPV in childhood are both associated with a greater risk of lifetime perpetration of IPV in adulthood by men in Asia and the Pacific region. They impact the likelihood of perpetration, both directly, and independently, as well as impacting adult food insecurity, depression and the likelihood of men embracing more gender inequitable and anti-social masculinities. The findings are compatible with explanations of direct impact of witnessing maternal IPV through social learning, as well as consequences of growing up with adversity in childhood manifest in self-esteem, personality and mood, and resulting in men embracing gender inequitable and anti-social masculinities, and relatedly using violence towards their wife or girlfriend. These pathways are all amenable to impact through gender transformative interventions that also seek to strengthen mental health and reduce poverty. The direct pathways are more challenging and require intervention with exposed children, and other family members, to reap benefits through reductions in IPV experienced/perpetrated in future generations of adults.

CRediT authorship contribution statement

Rachel Jewkes: Writing – original draft, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Ruchira Tabassum Naved:** Writing – review & editing, Supervision, Project administration, Methodology, Investigation, Conceptualization. **Naeema Abrahams:** Writing – review & editing, Conceptualization. **Nwabisa Shai:** Writing – review & editing, Investigation. **Leane Ramsoomar:** Writing – review & editing, Conceptualization. **Bianca Dekel:** Writing – original draft, Conceptualization. **Andrew Gibbs:** Writing – review & editing. **Jani Nöthling:** Writing – review & editing, Conceptualization. **Samantha Willan:** Writing – review & editing, Conceptualization. **Esnat Chirwa:** Writing – review & editing, Methodology, Formal analysis, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial

Table 5
Structural equation model: Direct, indirect and total effects.

	Goodness of Fit: CFI = 0.945, TLI = 0.901, RMSEA = 0.045								
	Direct effects			Indirect Effects			Total Effects		
Path	StdCoef (95% CI)	UnStdCoef (95%CI)	p-value	StdCoef (95% CI)	UnStdCoef (95%CI)	p-value	StdCoef (95% CI)	UnStdCoef (95%CI)	p-value
Food insecurity → IPV perpetration	0.079 (0.048,0.110)	0.181 (0.110,0.251)	<0.001	0.033 (0.025,0.040)	0.075 (0.058,0.091)	<0.001	0.112 (0.081,0.143)	0.255 (0.186,0.325)	<0.001
Depression score → IPV perpetration	0.089 (0.056,0.123)	0.019 (0.012,0.026)	<0.001	0.089 (0.071,0.107)	0.019 (0.015,0.023)	<0.001	0.178 (0.144,0.213)	0.038 (0.03,0.045)	<0.001
Anti-SocialMasculinity → IPV perpetration	0.679 (0.625,0.733)	9.398 (8.071,10.73)	<0.001				0.679 (0.625,0.733)	9.398 (8.071,10.725)	<0.001
Childhood trauma experience → IPV perpetration	0.171 (0.131,0.212)	0.059 (0.045,0.073)	<0.001	0.338 (0.308,0.369)	0.116 (0.105,0.128)	<0.001	0.510 (0.475,0.545)	0.175 (0.164,0.187)	<0.001
Witness abuse of mother as child → IPV perpetration	0.093 (0.059,0.126)	0.222 (0.143,0.301)	<0.001	0.102 (0.083,0.121)	0.244 (0.199,0.290)	<0.001	0.195 (0.161,0.229)	0.466 (0.386,0.547)	<0.001
Childhood trauma experience → Food insecurity	0.209 (0.186,0.231)	0.031 (0.028,0.035)	<0.001				0.209 (0.186,0.231)	0.031 (0.028,0.035)	<0.001
Witness abuse of mother as child → Food insecurity	0.046 (0.023,0.069)	0.048 (0.024,0.072)	<0.001				0.046 (0.023,0.069)	0.048 (0.024,0.072)	<0.001
Food insecurity → Depression score	0.183 (0.163,0.204)	1.986 (1.764,2.207)	<0.001				0.183 (0.163,0.204)	1.986 (1.764,2.207)	<0.001
Childhood trauma experience → Depression score	0.301 (0.280,0.322)	0.491 (0.455,0.526)	<0.001	0.038 (0.032,0.044)	0.062 (0.053,0.072)	<0.001	0.339 (0.318,0.360)	0.553 (0.517,0.589)	<0.001
Witness abuse of mother as child → Depression score	0.046 (0.025,0.068)	0.527 (0.284,0.771)	<0.001	0.008 (0.004,0.013)	0.096 (0.047,0.145)	<0.001	0.055 (0.033,0.077)	0.624 (0.376,0.871)	<0.001
Depression score → Anti-SocialMasculinity	0.131 (0.107,0.155)	0.002 (0.002,0.002)	<0.001				0.131 (0.107,0.155)	0.002 (0.002,0.002)	<0.001
Childhood trauma experience → Anti-SocialMasculinity	0.385 (0.360,0.410)	0.010 (0.008,0.011)	<0.001	0.044 (0.036,0.053)	0.001 (0.001,0.001)	<0.001	0.429 (0.405,0.453)	0.011 (0.009,0.012)	<0.001
Witness abuse of mother as child → Anti-SocialMasculinity	0.130 (0.106,0.155)	0.023 (0.018,0.028)	<0.001	0.007 (0.004,0.010)	0.001 (0.001,0.002)	<0.001	0.138 (0.113,0.162)	0.024 (0.019,0.029)	<0.001
Latents									
IPV → Sexual IPV	0.604 (0.575,0.633)	1	<0.001						
IPV → Physical IPV	0.461 (0.435,0.488)	0.882 (0.821,0.942)	<0.001						
Anti-SocialMasculinity→ Past year drug use	0.255 (0.229,0.282)	1	<0.001						
Anti-SocialMasculinity→ Teased/bullied others	0.579 (0.545,0.613)	3.409 (2.993,3.826)	<0.001						
Anti-SocialMasculinity→Gang involvement	0.449 (0.425,0.473)	1.733 (1.538,1.928)	<0.001						
Anti-SocialMasculinity→ Fight with weapon	0.419 (0.394,0.443)	1.852 (1.636,2.067)	<0.001						
Anti-SocialMasculinity→ Non-partner rape	0.662 (0.641,0.683)	2.865 (2.536,3.194)	<0.001						
Anti-SocialMasculinity→ Sex with sex worker	0.391 (0.367,0.415)	1.861 (1.632,2.09)	<0.001						
Anti-SocialMasculinity→ Problem drinking	0.42 (0.396,0.445)	1.816 (1.604,2.029)	<0.001						

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