

ARTICLE

The impact of childhood adversity on female-perpetrated intimate partner violence in young adulthood

Ailsa McGrath  | Jenny Mackay | Thom Baguley

Department of Psychology, Nottingham Trent University, Nottingham, UK

Correspondence

Ailsa McGrath, Department of Psychology, c/o Nottingham Trent University, Rm 4010 Chaucer Building, 50 Shakespeare Street, Nottingham, NG1 4FQ, UK.

Email: amaymcgrath@gmail.com

Abstract

Purpose: A common conception of intimate partner violence (IPV) is that women rarely use violence against romantic partners, and when they do, this is usually in self-defence. However, evidence demonstrates that women perpetrate IPV at least as frequently as men, particularly in young adult populations. Despite this, there is still a significant lack of research focusing on women's IPV perpetration, particularly in determining risk markers. The unique relationship between adversity in childhood and IPV perpetration has been recognized in males and it is thought that this relationship may be even more marked in females. The present study aimed to investigate this relationship to see whether experiencing increasing numbers of adverse childhood experiences (ACEs) would be associated with higher incidence of female-perpetrated IPV.

Methods: Exposure to ACEs and frequency of IPV perpetration was measured through an online survey of young adult females from the general population.

Results: Regression analysis revealed that ACEs did significantly predict the frequency of IPV perpetrated by females. The results showed that the more adversity a female has experienced in childhood, the greater their risk of IPV perpetration in young adulthood.

Conclusions: It is suggested that this relationship potentially exists because adversity in childhood impacts the individual's attachments and processing of social environments, thus resulting in dysfunctional, violent responses to relationship dilemmas throughout life. These results stress the importance of tailoring treatment strategies for female

This is an open access article under the terms of the [Creative Commons Attribution](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2024 The Authors. *Legal and Criminological Psychology* published by John Wiley & Sons Ltd on behalf of British Psychological Society.

perpetrators to address potential childhood adversity in which their violence may be rooted.

KEYWORDS

adverse childhood experiences, domestic violence, female offending, intimate partner violence, trauma

INTRODUCTION

Intimate partner violence (IPV), a set of violent and/or abusive behaviours aimed at current or former intimate partners, can be categorized as either physical, psychological, emotional, financial and/or coercive/controlling (World Health Organization, 2020). Despite the common narrative of male perpetrator and female victim (e.g. World Health Organization, 2020), research has consistently shown that, when using act-based measures, IPV is perpetrated to the same extent by both women and men (Archer, 2000; Shen, 2014; Straus, 2008). An estimated 2.1 million men in England and Wales have been victims of IPV in their lifetime (ONS, 2019), a third of male IPV victims have sustained injuries from either opposite- or same-sex partners (Rennison & Welchans, 2000) and men can be victims of female-perpetrated homicide (Velopulos et al., 2019). A recent review of men's experiences of IPV by Scott-Storey et al. (2023) highlighted that male victims report a range of IPV experiences, from isolated incidents to severe patterns of violence, and that they experience significant physical and mental health consequences as a result of IPV victimization. Furthermore, emerging research has demonstrated that IPV is also perpetrated within lesbian relationships (Rausch, 2016). Despite this growing knowledge, little research has focused solely on female-perpetrated IPV (Mackay et al., 2018), possibly because violence inflicted by women has been considered by some “a quaint form of feminine communication” (Johnson, 2008, p. 94), rather than a serious problem. However, violence perpetrated by women is not inconsequential and victims suffer greatly from abuse inflicted on them by women (e.g. Bates et al., 2019). Therefore, the present study contributes to the understanding of female-perpetrated IPV by investigating distal and developmental factors that influence women's propensity to violence and abuse within intimate relationships.

Debate surrounding how to explain IPV has led to opposing views on why women may perpetrate this behaviour. Explanations focused on patriarchy, gendered societal structures and power and control (e.g. Dobash & Dobash, 1979; Hammer, 2003), have resulted in women's perpetration of IPV being explained as self-defence. However, research has found that self-defence is not always the motive (Mackay et al., 2018), as women self-report motivations of control, anger, poor communication and jealousy (Caldwell et al., 2009; Hettrich & O'Leary, 2007). In contrast to this, other academics have attempted to understand female perpetration of IPV in relation to attachment theory and trauma. Attachment theory (Ainsworth & Bell, 1970; Bowlby, 1969) proposes that children create internal working models of their interactions with their caregiver and form a particular attachment style with them, which together influences how they form attachments and relationships with others throughout life. Being subject to abuse, neglect and trauma whilst forming early attachments in childhood can distort the attachment process and lead to maladaptive, insecure attachment styles forming (Riggs & Kaminski, 2010; Unger & De Luca, 2014). This is supported within IPV research as insecure attachment in adulthood has been linked to IPV perpetration; for example, it has been reported that anxious attachment in women is associated with higher frequency and severity of IPV perpetration (Bélanger et al., 2015; Orcutt et al., 2005).

Childhood adversity and intimate partner violence

A prominent phenomenon that appears throughout the literature related to IPV risk factors in male perpetrators is the relationship between adverse childhood experiences (ACEs) and IPV. ACEs are potentially traumatic events experienced during childhood that can have negative, long-lasting effects

on physical health and psychological well-being (Felitti et al., 1998). ACEs can range from abuse, neglect or maltreatment, to family dysfunction such as loss of a parent or parental substance abuse. Exposure to events of this nature is known to have a cumulative effect on the child, where experiencing increasing adversity leads to an increased risk of negative physical, psychological and social outcomes later in life (Danese et al., 2009; Schilling et al., 2007). In samples of individuals with criminal convictions, males convicted for IPV had been exposed to the highest number of ACEs when compared to non-IPV violent offenders and non-violent offenders (Hilton et al., 2019), suggesting that the presence of ACEs has a unique relationship with IPV perpetration. However, IPV is heavily underreported (Hines & Douglas, 2009); reliance on officially recorded incidents of IPV is likely to ignore psychological and coercive controlling behaviours, which may be prevalent in non-convicted samples. Nevertheless, research on male IPV perpetrators from the general population found similar patterns of childhood adversity: for every increase in the number of violent ACEs, males had been exposed to, the risk of IPV perpetration increased by 60%–70% (Whitfield et al., 2003).

A similar finding has been reflected in the scant research exploring women's perpetration of IPV and the link to ACEs. Luthra and Gidycz (2006) reported that exposure to parental violence in childhood was a more important predictor of female partner violence than male partner violence amongst dating populations, indicating that adversity in childhood may have a greater impact on female perpetration of IPV than it does on male perpetration. In support of this, Riggs and O'Leary's background situational model of dating violence (1989) highlights that men are generally more aggressive than females, yet similar levels of dating aggression are seen across both genders, potentially indicating that female-perpetrated dating violence is a unique offending behaviour. Therefore, it could be that the relationship between ACEs and IPV perpetration is amplified in females and exploring this relationship could reveal a considerable amount about partner violent females.

The present study

Whilst there has been research into individual effects of ACEs and combined effects of violent ACEs on IPV perpetration, little research has focused on the potential cumulative effect that both violent and non-violent ACEs may have specifically on female-perpetrated IPV. Understanding of this could provide insightful conclusions about the risk factors that contribute to female violence of this nature, therefore, allowing intervention strategies for women who perpetrate IPV to be better informed and ultimately effective in reducing IPV perpetration. The present study will confront this issue by investigating whether exposure to an increasing number of ACEs has a dose–response effect on female-perpetrated IPV.

Whilst IPV is a prevalent problem amongst all ages, the rates of IPV are said to peak in young adulthood and then decrease after this (Johnson et al., 2015), with young adults having consistently been found to have higher rates of partner violence than any other age group (Breiding et al., 2014). The present study therefore aims to examine the prevalence of female-perpetrated IPV in relation to ACEs and a range of demographic and other factors. In particular, we are interested in whether the frequency with which young-adult females report to perpetrate IPV increases as the number of ACEs they report being exposed to increases. In addition, we are interested in conducting exploratory analysis into the research question: are any individual ACEs more strongly associated with IPV perpetrated by females? The hypothesis for the present study is that increases in ACEs will be associated with higher incidence of female-perpetrated IPV. We expect this to hold for both physical and psychological IPV.

METHODS

Participants

Participants were recruited from the general population and included participants who identified as female, were aged between 18 and 25 years old, and had been in a romantic relationship within the last year

(defined as a short-term, long-term or dating relationship with another individual). After data cleaning, 239 participants were included in the final analysis. Of this sample, the mean age was 21.2 ($SD=1.8$). Approximately three quarters of the sample were heterosexual ($n=180$), with others identifying as bisexual ($n=49$), homosexual ($n=5$) or other ($n=3$) and two who preferred not to respond. The vast majority of participants were White European ($n=201$); however, the sample also included a small number of participants from Mixed/Multiple Ethnic backgrounds ($n=17$), Asian backgrounds ($n=11$), Black/African/Caribbean backgrounds ($n=4$), Arab backgrounds ($n=2$), other backgrounds ($n=2$) and two missing responses. When asked how long their most recent relationship had been, answers ranged from 0 to 123 months ($M=23.6$, $SD=22.1$). Most of the participants were in a relationship at the time of the survey ($n=148$) but others were single ($n=55$), dating ($n=27$), engaged ($n=5$) or married ($n=1$), with three not responding.

Design and procedure

The study design was a cross-sectional online survey. An online survey was utilized as this method of data collection has been noted to give more accurate information as the individuals completing the survey will be closer to the topic than if the information was gathered from alternative sources (Demetriou et al., 2015), which is particularly beneficial given the personal and sensitive nature of this survey. It can also be an efficient way of getting information from larger numbers of participants quickly and can mean the findings are more generalizable than other methods (Demetriou et al., 2015). Participants were recruited using an opportunity sample, either via social media sites (Facebook, Twitter, Instagram) or through the psychology research participation scheme at the host university in return for research credits. After clicking the link through to the survey, participants were presented with an introductory page consisting of information about the contents of the study along with consent and withdraw information. Participants were asked to indicate if they consented to take part in the study by clicking a box on the survey confirming their consent. If consent and eligibility criteria were met, participants then proceeded to the demographic questions, followed by the two scales. In the case that any participants were at all affected by the contents of the questionnaire, the survey concluded by presenting participants with debrief information, signposting to relevant support organizations and a contact for one of the authors in the case of any concerns or questions.

Measures

Demographic assessment

Five questions were used to collect demographic information, including age in years, nationality, sexuality, relationship status and current or most recent relationship length in months, to assess and control for potential covarying effects. Participants were asked to provide these details as previous research has suggested that women's use of IPV may vary by nationality (West, 2012), sexuality (Tjaden & Thoennes, 2000) and relationship type (Brown & Bulanda, 2008).

Adverse childhood experiences

ACE exposure was measured using a revised version of Felitti et al.'s Adverse Childhood Experiences Questionnaire (1998). Felitti et al.'s original ACE questionnaire consists of seven categories: three on child maltreatment (physical abuse, emotional abuse, sexual abuse) and four on household dysfunction (parental imprisonment, parental mental illness, parental substance abuse and violence against mother). This measure of ACEs has been found to have excellent test–retest reliability when

measuring ACEs from retrospective accounts (Dube et al., 2004), deeming it suitable for use in the present study. Finkelhor et al. (2015) recommended including additional items in a revised version of the ACE questionnaire that made significant contributions in predicting psychological distress and physical health in adulthood. This version added measures of parental loss, emotional and physical neglect, peer victimization and isolation, exposure to community violence and low socioeconomic status. Finkelhor et al.'s (2015) revised ACE questionnaire was used in the present study to measure ACE exposure. Alterations were made to item 7 of the ACE questionnaire, which originally measured violence against mother. The present study replaced "mother" with "parent/guardian" to account for violence by either parent, as both same-sex and opposite-sex parental aggression is thought to be associated with IPV perpetration (Jankowski et al., 1999; Milletich et al., 2010). The present study found a Cronbach's alpha value of .80, 95% CI [0.76, 0.83], for the ACE questionnaire, indicating good internal reliability.

There were 14 items relating to 14 ACE categories in total. Participants were asked if each of the events described by each item had occurred before their 18th birthday. Each item could be answered "yes" or "no," where "no" was coded as 0 indicating absence of the ACE, and "yes" was coded as 1 indicating presence of the ACE. A small proportion of participants had missing items (between 0 and 5 missing values per item and 7% of participants having any missing values). Mean scores were therefore used in the regression analyses rather than the overall count (to avoid missing observations being treated as 0) and to scale psychological and physical ACEs equivalently. Using the mean is unbiased if data are missing completely at random.

Intimate partner violence

IPV perpetration was measured via the Abusive Behaviour Inventory (ABI; Shepard & Campbell, 1992), which consisted of questions relating to both physical and psychological IPV. One item was removed for the present study ("I spanked him/her"), abiding by the original authors recommendation, leaving 29 items. Shepard and Campbell (1992) demonstrated the ABI's criterion validity as it accounted for around 25% of the variance between a group of people in abusive relationships and in non-abusive relationships. Additionally, they found that the ABI correlated highly with clinical assessment of abuse and correlated poorly with measures unrelated to partner violence (e.g. household size), demonstrating convergent and discriminant validity, respectively. Finally, the items on the ABI scale correlated highly with other items on the scale, indicating factorial validity. The ABI has been found to have an alpha coefficient range between .79 and .82 for the subscales for both male and female perpetrator groups, indicating good internal reliability (Rausch, 2016; Shepard & Campbell, 1992). The present study found a Cronbach's alpha value of .83, 95% CI [0.79, 0.86], for the entire scale, and values of .60, 95% CI [0.51, 0.67], and .80, 95% CI [0.76, 0.84], for the physical subscale and psychological subscale, respectively. This indicates acceptable reliability overall; however, the physical subscale alone only achieved moderate reliability.

Participants were asked how often they had engaged in the behaviours described by each item in the past year. Responses were on a 5-point scale from 1 to 5, with answers "never" (1), "rarely" (2), "occasionally" (3), "frequently" (4) and "very frequently" (5). A mean IPV score of one would indicate no IPV perpetration, and an IPV score of five would indicate the highest frequency of IPV perpetration. Any participant with an IPV score greater than one was classed as having perpetrated IPV to some degree.

Ethical considerations

Ethical approval was granted by the host institution's research ethics board. Given the sensitive nature of the questions asked and data collected, appropriate steps were taken to protect participants. This included providing detailed information regarding the nature of the research prior to the survey

commencing, assuring anonymity, giving the option to withdraw at any time and to skip over any questions they did not want to answer. At the end of the survey, full debrief information was provided including signposting to relevant support organizations.

Data analysis

All statistical analyses were carried out using R 4.0.3 (R Core Team, 2020). Initially, descriptive statistics in relation to ACEs and IPV were examined. For our exploratory analyses of whether some ACE categories were more predictive of IPV perpetration, bivariate correlations were conducted between ACE categories, IPV and demographic covariates. To predict that ACEs would have a positive relationship with IPV perpetration, a multiple linear regression was conducted with frequency of IPV perpetration as the outcome variable and ACE score and demographic variables as the predictor variables. Separate analyses were conducted with physical and psychological IPV as outcomes.

RESULTS

Exposure to adverse childhood experiences

The participants reported experiencing between a minimum of 0 and a maximum of 11 ACEs in total ($M = 0.183$, $SD = 0.196$), with 69.5% of the full sample reporting experiencing at least one ACE. The most common ACE reported was peer isolation and the least common was physical neglect. [Figure 1](#) summarizes the cumulative distribution of ACEs, and [Table 1](#) summarizes the ACE categories (both for complete cases only, though including incomplete cases produces a near-identical pattern).

Prevalence of female-perpetrated IPV

Approximately 16.7% of the sample reported perpetrating physical IPV, compared to 87.0% reporting perpetrating psychological IPV to some degree. The mean rating for physical IPV perpetration for the entire sample was 1.04 ($SD = 0.11$). Within those that reported having perpetrated physical IPV, their ratings for physical IPV perpetration had a range of 1.11–1.67 ($M = 1.23$, $SD = 0.17$). [Figure 2](#) summarizes the distribution of mean physical IPV scores (including complete cases only). The mean rating for psychological IPV perpetration for the entire sample was 1.31 ($SD = 0.28$). Within those that reported having perpetrated psychological IPV, their ratings had a range of 1.05–2.85 ($M = 1.35$, $SD = 0.27$). [Figure 3](#) summarizes the distribution of mean psychological IPV scores (including complete cases only). The most commonly reported IPV perpetration item was “I gave him/her angry stares or looks,” and the least commonly reported item was “I used a knife, gun, or other weapon against him/her” which was not reported by any of the sample.

Adverse childhood experiences and risk of IPV perpetration

Exploratory analyses

[Table 2](#) summarizes the relationships between the scores for IPV perpetration and ACEs and demographic covariates (age and relationship length). The simple correlations suggest a relationship between ACEs and both physical and psychological IPV. The correlations between covariates do not suggest severe impacts on the model, though there may be a modest reduction in power to detect some effects.

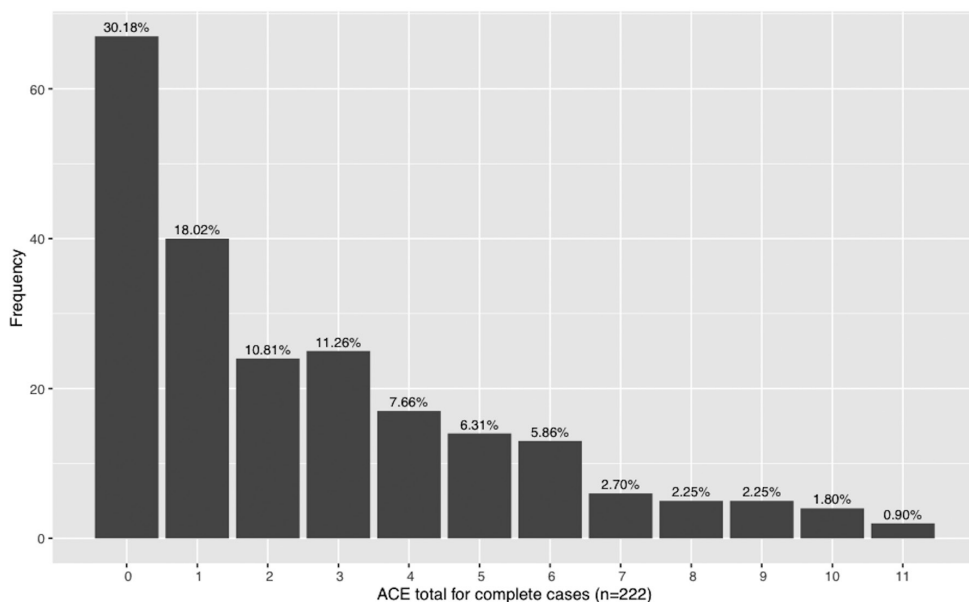


FIGURE 1 Histogram summarizing the cumulative distribution of ACEs.

TABLE 1 Distribution of ACE categories reported for complete cases in descending order of prevalence.

ACE category	Count	Frequency, %
Peer isolation	83	39.15
Parental mental illness	69	32.55
Emotional abuse	58	27.36
Emotional neglect	55	25.94
Parental loss	45	21.23
Peer victimization	45	21.23
Low socioeconomic status	42	19.81
Parental substance abuse	38	17.92
Physical abuse	30	14.15
Violence towards parent	23	10.85
Exposure to community violence	21	9.91
Sexual abuse	18	8.49
Parental imprisonment	12	5.66
Physical neglect	9	4.25
Total	148	69.81

Overall, psychological IPV correlated near perfectly indicating that psychological IPV (with more items and higher reliability) dominates the overall scale. Subsequent analyses therefore used only the separate psychological and physical IPV subscales.

To investigate whether different types of childhood adversity were independently related to IPV perpetration, correlations between IPV perpetration and the individual ACE categories were examined using Spearman's rho using pairwise deletion to maximize the number of pairs included. In principle, multiple imputation would slightly increase statistical power over this procedure, but with so few missing cases offer no further advantage in practice.

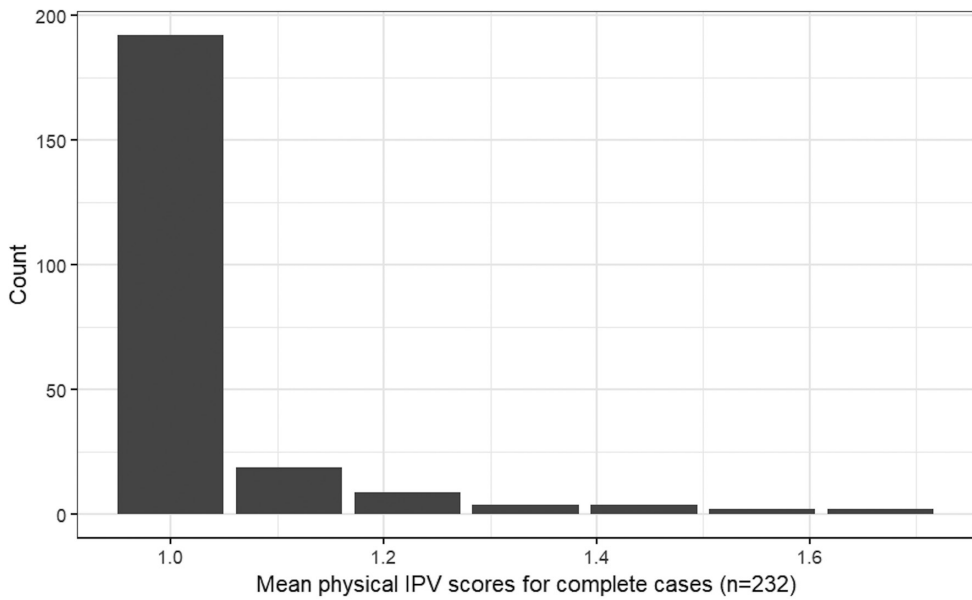


FIGURE 2 Histogram summarizing the distribution of mean physical IPV scores.

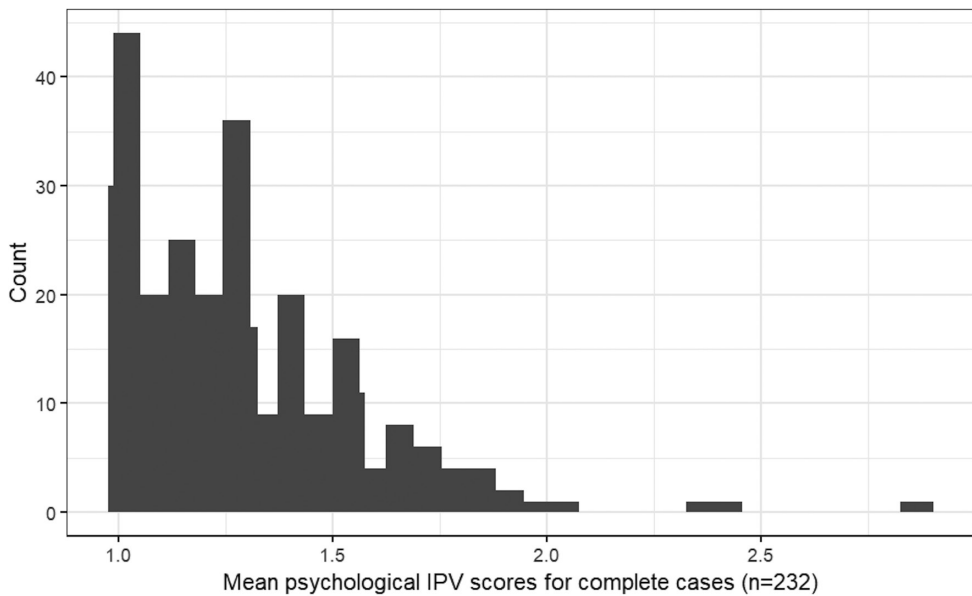


FIGURE 3 Histogram summarizing the distribution of mean psychological IPV scores.

This analysis revealed that physical IPV perpetration had a positive correlation with childhood emotional abuse ($r_s = .16, p = .015$), physical abuse ($r_s = .18, p = .004$), parental substance abuse ($r_s = .16, p = .013$) and parental imprisonment ($r_s = .17, p = .011$). Psychological IPV perpetration had a positive correlation with childhood sexual abuse ($r_s = .14, p = .039$), childhood emotional neglect ($r_s = .22, p < .001$), parental substance abuse ($r_s = .16, p = .016$), peer victimization ($r_s = .22, p < .001$) and peer isolation ($r_s = .27, p < .001$). [Table 3](#) summarizes the bivariate correlations between ACE categories and IPV perpetration.

TABLE 2 Correlation matrix of overall and subscale scores with continuous covariates.

	<i>n</i>	1	2	3	4	5	6
1. Age	239	–					
2. Relationship length	236	.27***	–				
3. ACE score (mean)	239	.04	-.04	–			
4. IPV score (mean)	239	-.01	.17**	.23***	–		
5. IPV physical	239	-.12	.02	.15*	.71***	–	
6. IPV psychological	239	.01	.19**	.23***	.99***	.62***	–

* $p < .05$; ** $p < .01$; *** $p < .001$.

TABLE 3 Spearman's rho correlations between ACE categories and IPV perpetration subscales.

ACE category	IPV physical	IPV psychological
Physical abuse	.184**	.065
Sexual abuse	.033	.135*
Violence towards parent	.067	.023
Emotional neglect	.008	.221***
Physical neglect	.073	.042
Parental loss	.079	-.008
Emotional abuse	.157*	.127
Parental substance abuse	.162*	.162*
Parental mental illness	-.021	.031
Parental imprisonment	.165*	-.008
Peer victimization	.116	.224***
Peer isolation	.109	.270***
Exposure to community violence	.067	.111
Low socioeconomic status	.112	.069

* $p < .05$; ** $p < .01$; *** $p < .001$.

Regression analysis

The first multiple linear regression was carried out on the data using physical IPV perpetration as the outcome variable. This was to analyse whether participants' ACE score could predict frequency of physical IPV perpetration, whilst all other variables were held constant. The regression included ACE score as the predictor variable of interest, as well as demographic variables (age, sexuality, nationality, relationship type and relationship length) in order to account for their effects. This model was not statistically significant for physical IPV perpetration, $F(15, 218) = 1.29, p = .21, R^2 = .081, 95\% \text{ CI } [0.03, 0.16]$; however, as predicted, ACE score uniquely predicted physical IPV perpetration score, showing a positive relationship consistent with the simple correlation between ACE and physical IPV scores reported earlier. All unique effects are summarized in Table 4. Statistical power to detect the effects of the other predictors is impacted by collinearity, though this was relatively mild with $VIF = 1.16$ for the ACE score (and below 2.5 for all other predictors).

A second multiple linear regression was carried out on the data using frequency of psychological IPV perpetration as the outcome variable in order to analyse whether ACE score could predict psychological IPV perpetration. The predictor variable of interest was ACE score and demographic variables (age, sexuality, nationality, relationship type and relationship length) were included in order to control for their potential effects. The model was significant in predicting psychological IPV perpetration $F(15, 218) = 1.83, p = .03, R^2 = .113, 95\% \text{ CI } [0.05, 0.20]$, accounting for approximately 11%

TABLE 4 Summary of regression analyses for physical IPV perpetration.

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	1.109	.121	0.166	<.001
ACE mean	0.116	.040	2.894	.004
Age	-0.008	.004	-1.879	.062
Sexuality: Heterosexual	0.019	.020	0.967	.335
Sexuality: Homosexual	-0.015	.054	-0.278	.781
Sexuality: Other	0.006	.082	0.071	.943
Nationality: Arab	0.068	.114	0.597	.551
Nationality: Asian/Asian British	0.134	.091	1.469	.143
Nationality: Black/African/ Caribbean/Black British	0.137	.100	1.279	.169
Nationality: Mixed/Multiple Ethnic Group	0.050	.087	0.572	.568
Nationality: White	0.088	.083	1.048	.296
Relationship Length	0.000	.000	1.141	.255
Relationship Type: Engaged	-0.067	.061	-1.101	.272
Relationship Type: In Relationship	-0.031	.025	-1.233	.219
Relationship Type: Married	-0.155	.149	-1.045	.297
Relationship Type: Single	-0.030	.028	-1.070	.286

Note: $R^2 = .081$.

Reference categories were Sexuality: Bisexual, Nationality: Other Ethnic Group, Relationship Type: Dating.

TABLE 5 Summary of regression analyses for psychological IPV perpetration.

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	1.281	.286	4.487	<.001
ACE mean	0.347	.095	3.658	<.001
Age	-0.009	.010	-0.847	.398
Sexuality: Heterosexual	-0.018	.047	-0.375	.708
Sexuality: Homosexual	-0.116	.128	-0.910	.364
Sexuality: Other	-0.084	.194	-0.434	.665
Nationality: Arab	0.091	.270	0.337	.736
Nationality: Asian/Asian British	0.221	.215	1.031	.304
Nationality: Black/African/Caribbean/Black British	0.193	.235	0.819	.414
Nationality: Mixed/Multiple Ethnic Group	0.042	.205	0.205	.838
Nationality: White	0.109	.197	0.555	.579
Relationship length	0.003	.001	2.941	<.001
Relationship Type: Engaged	-0.013	.143	-0.088	.930
Relationship Type: In Relationship	-0.022	.060	-0.363	.717
Relationship Type: Married	-0.070	.351	-0.199	.843
Relationship Type: Single	-0.004	.065	-0.068	.946

Note: $R^2 = .113$.

Reference categories were Sexuality: Bisexual, Nationality: Other Ethnic Group, Relationship Type: Dating.

of the variability in psychological IPV perpetration score. ACE score had a significant positive association with frequency of psychological IPV perpetration. In this model, relationship length also had a significant positive association with psychological IPV perpetration. Effects of all predictors are summarized in Table 5.

Interestingly, in a further analysis exploring the more substantial model effects, there was some evidence of an interaction between relationship length and ACE score, $b = .0137$, $t(216.7) = 2.49$, $p = .013$. This suggests that the impact of ACE scores on psychological IPV may increase somewhat over time within a relationship. We consider this a tentative finding, arising as it does from a post hoc analysis, but suggests the impact of ACEs may not be static, but could vary over time in relation to other life events and may be worthy of further study.

Dose–response for the ACE-IPV relationship

Our models treat the impact of ACE exposure as a linear function of cumulative ACEs. To explore the form of the dose–response function we graphically examined the relationship using a loess (local regression fit) using base R. This is an atheoretical, data-driven that estimates that is useful for detecting potential curvilinearity. The loess fits for physical and psychological IPV are shown in Figure 4. Both plots show a broadly similar pattern of an initially stronger dose–response levelling in the mid-range and a slight increase with the highest ACE scores. To test this potential pattern, we conducted polynomial regression by adding orthogonal quadratic and cubic terms to the models to capture potential non-linearity. Our interest is only in the quadratic and cubic components (the linear components merely reproducing the ACE effects already reported). The quadratic component was non-significant for both physical ($p = .34$) and psychological ($p = .11$) IPV. There was stronger evidence of a cubic trend reflecting the pattern suggested by loess, but these tests were also non-significant for both physical ($p = .095$) and psychological ($p = .054$). Research detecting dose–response relationships for ACEs and other outcomes such as depression does show a non-linear dose–response (e.g. Merrick et al., 2017; Tan & Mao, 2023) but typically requires thousands rather than hundreds of cases. It therefore seems plausible that the dose–response is non-linear or may depend on the nature of type of ACE exposure. Nevertheless, here and in other studies, the linear component of the dose–response accounts for a substantial element of the dose–response.

DISCUSSION

The present study set out to investigate whether exposure to increasing amounts of adversity in childhood had an effect on women's perpetration of IPV, using an online survey. The survey included a revised

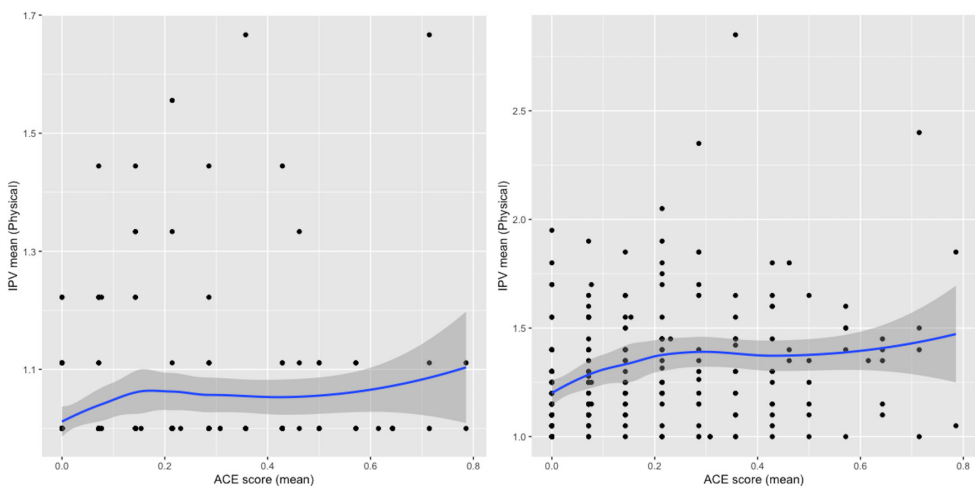


FIGURE 4 Loess fit plots for physical and psychological IPV.

version of the ACE questionnaire (Finkelhor et al., 2015) and the ABI (Shepard & Campbell, 1992). It was hypothesized that increasing exposure to adversity in childhood would be associated with higher incidence of IPV perpetration by young adult females. The results demonstrate that this hypothesis was supported for psychological IPV specifically, as the regression analysis revealed that childhood adversity did have a positive effect on the frequency of psychological IPV perpetration. For psychological IPV perpetration, it was also found that an increase in relationship length led to a significant increase in frequency of perpetration. However, this regression model only accounted for a relatively small amount of variability in psychological IPV perpetration. However, as with psychological IPV perpetration, there is both a bivariate correlation and unique relationship between childhood adversity and physical IPV perpetration after inclusion of covariates. The present study also explored the research question of whether some individual ACEs would be independently correlated with IPV perpetration by young adult females. The results of bivariate correlation analyses revealed that childhood emotional abuse, physical abuse and parental imprisonment were positively correlated with physical IPV perpetration, and childhood sexual abuse, emotional neglect, peer victimization and peer isolation were positively correlated with psychological IPV perpetration. Parental substance use was positively correlated with both subtypes of IPV perpetration. The present study also found that the majority of the sample of young adult females had perpetrated psychological IPV, and a smaller but still reasonable proportion of the sample had perpetrated physical IPV.

Research implications: The cumulative and independent effects of ACEs on IPV

The present study revealed that women who experienced increasing amounts of adversity throughout childhood more frequently perpetrated violence/abuse towards their partner as young adults. This is supported by similar findings on research into male perpetrated IPV (Hilton et al., 2019; Whitfield et al., 2003), showing that the relationship between childhood adversity and IPV perpetration is not unique to men but is present for women as well. This finding is also in favour of the belief that female-perpetrated IPV is related to complex victimization and trauma in childhood (Babcock et al., 2003; Goldenson et al., 2009), as it suggests that greater exposure to adversity and potentially traumatic experiences in childhood increases the risk of females going on to be violent in intimate relationships. Whilst childhood physical abuse was correlated with physical IPV perpetration, interestingly, there was no independent relationship between female physical or psychological IPV perpetration and witnessing a parent be violent towards another parent, which conflicts with research on both female and male perpetrated IPV (Kaura & Allen, 2004; Luthra & Gidycz, 2006). This suggests that there may be flaws in applying the intergenerational transmission of violence hypothesis to female-perpetrated IPV, particularly psychological IPV, as witnessing parental physical violence alone may not be sufficient to increase the risk of IPV perpetration. The findings suggest that it is not necessarily modelling of physical violence alone from a parent to another parent, but rather the compounding effect of parental violence along with other adverse experiences that predicts IPV perpetration in later life. Whilst there is limited research exploring this in community samples of women, similar research findings have been noted in samples of convicted female perpetrators of IPV (Stuart et al., 2006).

A number of ACEs were independently correlated with physical and/or psychological IPV perpetration in the current study, including childhood emotional abuse, emotional neglect, parental substance abuse and parental imprisonment. Given the nature of these ACEs, it may be that the relationship between ACEs and IPV could be explained partly by the development of insecure attachments with caregivers (Bowlby, 1969). It has been proposed that childhood adversity might disrupt healthy relationships between a child and their caregiver (Hill et al., 1994), in turn impacting the nature of their attachment. These childhood attachments act as a framework for all relationships throughout life, including intimate relationships where individuals with insecure attachment (especially anxious attachment) tend to experience greater distress and escalate severity of conflicts in relationships (Campbell et al., 2005). Therefore,

individuals with an insecure attachment as a result of childhood adversity would be at a particularly high risk of perpetrating IPV. This explanation is particularly supported by the present study's findings, as it could be assumed that a child who is a victim of emotional abuse and neglect will not be having their needs consistently met, and a parent with substance abuse problems may struggle to consistently attend to their child's needs.

Peer isolation and victimization were uniquely correlated with psychological IPV perpetration, yet insecure child–caregiver attachments cannot directly account for this association. Findings obtained from longitudinal research by Dodge et al. (2003) suggest that being rejected by peers in early childhood intensified antisocial development amongst children (both males and females) who were already predisposed towards aggression. It was suggested that this early rejection alters how children process and solve social problems, increasing their likelihood to interpret situations as hostile and produce aggressive responses in reaction to peer dilemmas (Dodge et al., 2003), which might then continue to impact their responses in social relationships throughout life. There have also been fMRI studies, such as Puetz et al. (2014) who used fMRI imaging to compare the neural response to peer rejection in adolescents who had experienced early life stress with adolescents who had not experienced early life stress. This research found that adolescents who had experienced early life stress have alterations in their neural circuitry, including increased activity in threat-related processing brain areas when facing peer rejection, which impacted their regulation of socioemotional processes (Puetz et al., 2014). It was suggested that these neural adaptations may increase the vulnerability of children who have experienced early life stress to greater reactivity to peer rejection and could increase the risk of developing affective disorders later in life (Puetz et al., 2014). It may be that experiences of childhood adversity in child–caregiver relationships are compounded by the addition of peer problems, leading to a cumulative impact on a child's ability to process social relationships appropriately. Faults in the processing of social relationships as a result of various ACEs might follow children into adulthood, where dilemmas in romantic relationships are then interpreted as more hostile and therefore illicit more violent responses towards their partners. It is clear that female-perpetrated IPV is a complex form of violence/abuse, which may be rooted in multiple levels of violent and non-violent childhood adversity. Thus, the suggestion that the faulty processing of social relationships, which has resulted from childhood adversity, could be one of the underlying causes for women's use of IPV is a far more comprehensive explanation than the intergenerational transmission of violence hypothesis.

Research implications: Women's use of IPV

As expected, the present study found that both physical and psychological IPV perpetration is prevalent in young adult female populations. The prevalence of physical IPV reported in the present study (17%) is comparable to other studies (e.g. Cunradi et al., 2008; Follingstad et al., 1991; Kendra et al., 2012; Shen, 2014), yet is half or less of that recorded elsewhere (Dorosweqicz & Forbes, 2008; Hettrich & O'Leary, 2007; Straus, 2008). For psychological IPV, the prevalence of female perpetration was substantial (87%) and on the higher end of the spectrum compared to other IPV research (Gover et al., 2008; Ro & Lawrence, 2007; Shen, 2014). It should be noted that there are some methodological issues in comparing the prevalence rates of IPV perpetration between studies, which could cause variation in IPV reporting, as rates may vary based on the method of measurement.

The finding of such high prevalence rates of psychological IPV perpetration amongst the sample of young adult females could be explained by a number of reasons. The first, suggested by Gover et al. (2008), is that the combination of lack of formal commitment (e.g. marriage) at this age and males of this age tending to have a higher number of sexual partners could result in heightened jealousy and frustration in females, increasing their risk of perpetrating coercively controlling behaviours. This is supported to an extent by the present findings, as only a small proportion of the sample were engaged or married. However, proposing that the high prevalence of female's IPV perpetration is partly due to the

lack of formal commitment in relationships at this age is largely contradicted by the present study's finding that longer relationship lengths lead to an increase in the frequency of violence/abuse perpetrated by females towards their partner. This finding has been supported by previous research, such as Graham-Kevan and Archer (2009), who suggested that the association between longer relationship lengths and controlling behaviour might be linked to mate-guarding behaviour in women. Alternatively, society's differing views on female-perpetrated IPV compared to male perpetrated IPV may encourage the rate at which females perpetrate; in a large survey of the general public, Sorenson and Taylor (2005) found that actions are more often considered abusive when performed by males than by females, including both physical and psychological abuse. Women may therefore more readily perpetrate and/or admit to perpetrating IPV as they would not expect similar rates of backlash from a societal perspective.

Despite IPV perpetration being reported by a substantial portion of the sample in the present study, the frequency of IPV perpetration reported was generally quite low especially for physical IPV ($M = 1.23$ on a scale between 1 and 5, with 1 indicating no IPV perpetration). This result from the present study is comparable to previous research findings, that also used the ABI (Shepard & Campbell, 1992) such as that by Turell et al. (2018), who found that bisexual individuals from the general population who were Caucasian ($M = 1.27$) or Hispanic ($M = 1.19$), were in a monogamous relationship ($M = 1.26$) or disclosed no infidelity in their relationship ($M = 1.22$) all reported similar ABI perpetration scores to that of the present study. As the sample used in the present study was taken from the general population, it is not surprising that the frequency of perpetration is low in comparison with samples consisting of convicted perpetrators or people attending treatment programmes for IPV. However, the frequency of perpetration could have also been lower due to social desirability bias arising as a result of the self-report measures used in the study. Follingstad and Rogers (2013) highlighted that underreporting of one's own severity of physical abuse perpetration is common in IPV research due to the participant's awareness that the behaviours could be illegal. For this reason, the findings of the present study regarding the frequency of IPV perpetration should be considered with some caution.

Prevention and clinical implications

The findings of this study have important implications for both prevention and intervention practices. In terms of preventative measures, the present study demonstrates that young adult females are a key population for targeted prevention techniques, as the prevalence of female-perpetrated IPV was so high. Such prevention strategies should firstly increase awareness of the seriousness of female-perpetrated IPV, which in turn may reduce the stigma for victims of female-perpetrated IPV to come forward. The high prevalence rates indicate that relationship education may be as important as sex and consent education throughout school years and in university settings where many students are within this young adult age group. Many community-level interventions have historically focused on what is taught to young boys and men around reducing violence perpetration (e.g. Banyard et al., 2019; Miller et al., 2012); however, findings of the present study suggest that these interventions are also important for young girls and women, particularly in relation to psychological abuse.

Results from the present study have also emphasized the need for effective community-level interventions for children who have experienced or are experiencing adversity, as well as children at risk of adversity. The finding that ACEs are associated with female-perpetrated IPV in young adulthood clearly shows the importance of interventions for children and young people that are focused on prevention of and recovery from traumatic experiences (e.g. Ellis & Dietz, 2017; Golding, 2015; Hughes, 2017). Policy drivers should be focused on how to recognize, prevent and support children experiencing adversity in order to reduce the negative impacts associated with childhood adversity, such as IPV perpetration in adulthood.

The findings of the present study can also be helpful to better inform treatment interventions for female perpetrators of IPV. Many treatment strategies for IPV perpetrators have adopted a one-size-fits-all approach (Dutton & Corvo, 2006). However, in light of the present findings, it will likely be

more effective to examine the individual client profile, including an assessment of childhood adversity, an understanding of how these experiences have impacted the individual at their time of approaching intervention, and an adaptation of treatment based on this. One way in which this has been actioned for male perpetrators of IPV is Sonkin and Dutton's (2003) model based on attachment theory, in which the framework focuses on encouraging perpetrators to better understand the impact that their upbringing has had on their patterns of behaviour in intimate relationships. This could be a useful tool to tailor to female perpetrators, but also should include a way of addressing the commonly elevated levels of childhood adversity and trauma displayed in female perpetrators (Stuart et al., 2006).

Limitations

It is important to acknowledge certain limitations of the present study that may impact the interpretation and application of its findings. Primarily, the regression model only accounted for a reasonably small amount of variance in IPV perpetration. This suggests that, whilst ACEs do have an effect on female-perpetrated IPV, childhood adversity is only a small part of the picture of what influences women to be violent towards a partner. Much research has proposed that there are a number of factors that play a role in women's use of IPV, such as specific psychopathology characteristics, including borderline personality traits (McKeown, 2014) and heightened level of trauma (Stuart et al., 2006).

Furthermore, the self-reported nature of the chosen methodology may allow for potential biases and loss of motivation or context of violence. Self-reported survey methods, particularly when used to collect data on sensitive topics such as those in the present study, can allow for participants to answer in a way that does not reflect their true feelings and experiences, where other data collection methods would not (Demetriou et al., 2015). Context (e.g. directionality of violence) and motivation were also not considered, which may play a mediating role between childhood adversity and IPV perpetration. For example, bi-directional violence, where both parties are perpetrators of abuse towards their partner, is the most common form of partner abuse and this form of IPV often results in greater frequency and severity of violence (Capaldi et al., 2004; Stets & Straus, 1992), so it is possible that the predictive ability of ACEs on IPV perpetration could differ depending on the context and motivation of violence.

Additionally, as it is standard practice to treat all ACEs the same where samples are not particularly large due to some ACEs being rare (particularly within community samples), the regression model did not take into account that certain ACEs may have greater effects on IPV than others. Whilst the exploratory analysis of correlations between individual ACEs and IPV subscales somewhat strengthened this, it would require much larger samples to explore the differential impact of these, and so it would be beneficial for this to be explored in future research where sample sizes are sufficient.

It is also important to acknowledge limitations regarding the use of the ABI (Shepard & Campbell, 1992) as a measurement of female-perpetrated IPV. Specifically, the ABI (Shepard & Campbell, 1992) was originally developed for the context of male perpetrators and female victims, and so, like many measures of IPV, has not necessarily been validated for use in populations of female perpetrators (McHugh et al., 2013). Additionally, measures similar to the ABI (Shepard & Campbell, 1992) have been critiqued for primarily capturing situational couple violence, rather than more severe patterns of on-going abuse, meaning understanding more serious forms of IPV is limited with these measures (Scott-Storey et al., 2023). Therefore, there is a strong need to develop and validate measures with female perpetrators of IPV and measures, which capture more severe forms of IPV.

Although the present study was inclusive of females from multiple nationality and sexuality groups, the vast majority of the sample was White European and heterosexual, meaning the study was limited as minority groups were largely underrepresented in the sample. Whilst the present study did not find any significant relationship between nationality or sexuality and level of IPV perpetration amongst females, this differs from previous research (Tjaden & Thoennes, 2000; West, 2012) but is readily explained by makeup of the sample.

Future research directions

Given the limitations highlighted previously, future research building on the present study would benefit from addressing these limitations to gain a deeper insight into any impact that context of violence/abuse may have on the predictive ability of ACEs on IPV perpetration. Specifically, exploring whether childhood adversity differs in predictive ability of IPV perpetration for those identifying differing motivations for IPV perpetration could be beneficial, as well as investigating whether directionality of violence has any effect on the outcome. Additionally, as research has shown that minority groups tend to experience a disproportionality higher level of childhood adversity compared to majority groups (Andersen & Blosnich, 2013; Umberson et al., 2014), future research should focus on childhood adversity as it relates to IPV perpetration in said minority groups.

CONCLUSIONS

There is no denying that female-perpetrated IPV is not only prevalent amongst young adults, but it occurs at such a rate that it must be considered a serious social problem. In particular, the frequency at which young women use psychological abuse against their intimate partners is disquieting and deserves attention in order to reduce further victimization. The present study has made contributions to the examination of risk factors for female-perpetrated IPV, finding that the more adverse experiences women were exposed to during childhood, the higher their risk of being violent towards a romantic partner in young adulthood. However, it is evident that the relationship between childhood adversity and female-perpetrated IPV is complex, which demands further in-depth investigation. The present research advocates for female IPV perpetration intervention strategies to adopt a tailored approach that addresses the perpetrator's childhood adversity, dysfunctional processing of social relationships and other factors unique to female IPV perpetration to effectively prevent their further use of violence/abuse.

AUTHOR CONTRIBUTIONS

Ailsa McGrath: Conceptualization; methodology; investigation; formal analysis; project administration; writing – original draft; writing – review and editing. **Jenny Mackay:** Conceptualization; supervision; writing – original draft; writing – review and editing. **Thom Baguley:** Writing – original draft; writing – review and editing; visualization; formal analysis.

CONFLICT OF INTEREST STATEMENT

The author reports no conflict of interest with the publication of this paper.

DATA AVAILABILITY STATEMENT

Data are not available due to risk of identification of participants without consent to share information. Synthetic data set with similar statistical properties, but different underlying values, is available.

ORCID

Ailsa McGrath  <https://orcid.org/0000-0002-3743-7578>

REFERENCES

- Ainsworth, M. D. S., & Bell, S. M. (1970). Attachment, exploration, and separation: Illustrated by the behavior of one-year-olds in a strange situation. *Child Development, 41*, 49–67.
- Andersen, J. P., & Blosnich, J. (2013). Disparities in adverse childhood experiences among sexual minority and heterosexual adults: Results from a multi-state probability-based sample. *PLoS One, 8*(1), e54691. <https://doi.org/10.1371/journal.pone.0054691>
- Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analytic review. *Psychological Bulletin, 126*(5), 651–680. <https://doi.org/10.1037/0033-2909.126.5.651>

- Bélanger, C., Mathieu, C., Dugal, C., & Courchesne, C. (2015). The impact of attachment on intimate partner violence perpetrated by women. *The American Journal of Family Therapy*, 43(5), 441–453. <https://doi.org/10.1080/01926187.2015.1080130>
- Babcock, J. C., Miller, S. A., & Siard, C. (2003). Toward a typology of abusive women: Differences between partner-only and generally violent women in the use of violence. *Psychology of Women Quarterly*, 27(2), 153–161. <https://doi.org/10.1111/1471-6402.00095>
- Banyard, V. L., Edwards, K. M., Rizzo, A. J., Theodores, M., Tardiff, R., Lee, K., & Greenberg, P. (2019). Evaluating a gender transformative violence prevention program for middle school boys: A pilot study. *Children and Youth Services Review*, 101, 165–173. <https://doi.org/10.1016/j.chidyouth.2019.03.052>
- Bates, E. A., Kaye, L. K., Pennington, C. R., & Hamlin, I. (2019). What about the male victims? Exploring the impact of gender stereotyping on implicit attitudes and behavioural intentions associated with intimate partner violence. *Sex Roles*, 81(1), 1–15. <https://doi.org/10.1007/s11199-018-0949-x>
- Bowlby, J. (1969). *Attachment and loss Vol.1, Attachment*. Hogarth Press.
- Breiding, M. J., Smith, S. G., Basile, K. C., Walters, M. L., Chen, J., & Merrick, M. T. (2014). Prevalence and characteristics of sexual violence, stalking, and intimate partner violence victimization—national intimate partner and sexual violence survey, United States, 2011. *Morbidity and Mortality Weekly Report. Surveillance Summaries*, 63(8), 1–18.
- Brown, S. L., & Bulanda, J. R. (2008). Relationship violence in young adulthood: A comparison of daters, cohabitators, and marrieds. *Social Science Research*, 37(1), 73–87. <https://doi.org/10.1016/j.ssresearch.2007.06.002>
- Caldwell, J. E., Swan, S. C., Allen, C. T., Sullivan, T. P., & Snow, D. L. (2009). Why I hit him: Women's reasons for intimate partner violence. *Journal of Aggression, Maltreatment & Trauma*, 18(7), 672–697. <https://doi.org/10.1080/10926770903231783>
- Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology*, 88(3), 510–531. <https://doi.org/10.1037/0022-3514.88.3.510>
- Capaldi, D. M., Kim, H. K., & Shortt, J. W. (2004). Women's involvement in aggression in young adult romantic relationships: A developmental systems model. In M. Putallaz & K. L. Bierman (Eds.), *Duke series in child development and public policy. Aggression, antisocial behavior, and violence among girls: A developmental perspective* (pp. 223–241). Guilford Publications.
- Cunradi, C. B., Todd, M., Duke, M., & Ames, G. (2008). Problem drinking, unemployment, and intimate partner violence among a sample of construction industry workers and their partners. *Journal of Family Violence*, 24(2), 63–74. <https://doi.org/10.1007/s10896-008-9209-0>
- Danese, A., Moffitt, T. E., Harrington, H., Milne, B. J., Polanczyk, G., Pariante, C. M., Poulton, R., & Caspi, A. (2009). Adverse childhood experiences and adult risk factors for age-related disease: Depression, inflammation, and clustering of metabolic risk markers. *Archives of Pediatrics & Adolescent Medicine*, 163(12), 1135–1143. <https://doi.org/10.1001/archpediatrics.2009.214>
- Demetriou, C., Ozer, B. U., & Essau, C. (2015). Self-report questionnaires. In R. Cautin & S. Lilienfeld (Eds.), *The Encyclopedia of clinical psychology*. John Wiley & Sons, Inc.
- Dobash, R. E., & Dobash, R. (1979). *Violence against wives: A case against the patriarchy*. Free Press.
- Dodge, K. A., Lansford, J. E., Burks, V. S., Bates, J. E., Pettit, G. S., Fontaine, R., & Price, J. M. (2003). Peer rejection and social information-processing factors in the development of aggressive behavior problems in children. *Child Development*, 74(2), 374–393. <https://doi.org/10.1111/1467-8624.7402004>
- Doroszewicz, K., & Forbes, G. B. (2008). Experiences with dating aggression and sexual coercion among polish college students. *Journal of Interpersonal Violence*, 23(1), 58–73. <https://doi.org/10.1177/0886260507307651>
- Dube, S. R., Williamson, D. F., Thompson, T., Felitti, V. J., & Anda, R. F. (2004). Assessing the reliability of retrospective reports of adverse childhood experiences among adult HMO members attending a primary care clinic. *Child Abuse & Neglect*, 28(7), 729–737. <https://doi.org/10.1016/j.chiabu.2003.08.009>
- Dutton, D. G., & Corvo, K. (2006). Transforming a flawed policy: A call to revive psychology and science in domestic violence research and practice. *Aggression and Violent Behavior*, 11(5), 457–483. <https://doi.org/10.1016/j.avb.2006.01.007>
- Ellis, W. R., & Dietz, W. H. (2017). A new framework for addressing adverse childhood and community experiences: The building community resilience model. *Academic Pediatrics*, 17(7), S86–S93. <https://doi.org/10.1016/j.acap.2016.12.011>
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, 56(6), 774–786. [https://doi.org/10.1016/S0749-3797\(98\)00017-8](https://doi.org/10.1016/S0749-3797(98)00017-8)
- Finkelhor, D., Shattuck, A., Turner, H., & Hamby, S. (2015). A revised inventory of adverse childhood experiences. *Child Abuse & Neglect*, 48, 13–21. <https://doi.org/10.1016/j.chiabu.2015.07.011>
- Follingstad, D. R., & Rogers, M. J. (2013). Validity concerns in the measurement of women's and men's report of intimate partner violence. *Sex Roles*, 69, 149–167. <https://doi.org/10.1007/s11199-013-0264-5>
- Follingstad, D. R., Wright, S., Lloyd, S., & Sebastian, J. A. (1991). Sex differences in motivations and effects in dating violence. *Family Relations*, 40(1), 51. <https://doi.org/10.2307/585658>
- Goldenson, J., Spidel, A., Greaves, C., & Dutton, D. (2009). Female perpetrators of intimate partner violence: Within-group heterogeneity, related psychopathology, and a review of current treatment with recommendations for the future. *Journal of Aggression, Maltreatment & Trauma*, 18(7), 752–769. <https://doi.org/10.1080/10926770903231791>

- Golding, K. S. (2015). Meeting the therapeutic needs of traumatised children. www.kimgolding.co.uk
- Gover, A. R., Kaukinen, C., & Fox, K. A. (2008). The relationship between violence in the family of origin and dating violence among college students. *Journal of Interpersonal Violence, 23*(12), 1667–1693. <https://doi.org/10.1177/0886260508314330>
- Graham-Kevan, N., & Archer, J. (2009). Control tactics and partner violence in heterosexual relationships. *Evolution and Human Behavior, 30*(6), 445–452. <https://doi.org/10.1016/j.evolhumbehav.2009.06.007>
- Hammer, R. (2003). Militarism and family terrorism: A critical feminist perspective. *The Review of Education, Pedagogy & Cultural Studies, 25*(3), 231–256. <https://doi.org/10.1080/10714410390225911>
- Hettrich, E. L., & O'Leary, K. D. (2007). Females' reasons for their physical aggression in dating relationships. *Journal of Interpersonal Violence, 22*(9), 1131–1143. <https://doi.org/10.1177/0886260507303729>
- Hill, E. M., Young, J. P., & Nord, J. L. (1994). Childhood adversity, attachment security, and adult relationships: A preliminary study. *Ethology and Sociobiology, 15*(5–6), 323–338. [https://doi.org/10.1016/0162-3095\(94\)90006-X](https://doi.org/10.1016/0162-3095(94)90006-X)
- Hilton, N. Z., Ham, E., & Green, M. M. (2019). Adverse childhood experiences and criminal propensity among intimate partner violence offenders. *Journal of Interpersonal Violence, 34*(19), 4137–4161. <https://doi.org/10.1177/0886260516674943>
- Hines, D. A., & Douglas, E. M. (2009). Women's use of intimate partner violence against men: Prevalence, implications, and consequences. *Journal of Aggression, Maltreatment & Trauma, 18*(6), 572–586. <https://doi.org/10.1080/10926770903103099>
- Hughes, D. (2017). Dyadic developmental psychotherapy (DDP): An attachment-focused family treatment for developmental trauma. *Australian and New Zealand Journal of Family Therapy, 38*(4), 595–605. <https://doi.org/10.1002/anzf.1273>
- Jankowski, M. K., Leitenberg, H., Henning, K., & Coffey, P. (1999). Intergenerational transmission of dating aggression as a function of witnessing only same sex parents vs. opposite sex parents vs. both parents as perpetrators of domestic violence. *Journal of Family Violence, 14*(3), 267–279. <https://doi.org/10.1023/A:1022814416666>
- Johnson, W. L., Giordano, P. C., Manning, W. D., & Longmore, M. A. (2015). The age–IPV curve: Changes in the perpetration of intimate partner violence during adolescence and young adulthood. *Journal of Youth and Adolescence, 44*(3), 708–726. <https://doi.org/10.1007/s10964-014-0158-z>
- Johnson, M. P. (2008). *A typology of domestic violence: Intimate terrorism, violent resistance, and situational couple violence* (1st ed.). Northeastern University Press
- Kaura, S. A., & Allen, C. M. (2004). Dissatisfaction with relationship power and dating violence perpetration by men and women. *Journal of Interpersonal Violence, 19*(5), 576–588. <https://doi.org/10.1177/0886260504262966>
- Kendra, R., Bell, K. M., & Guimond, J. M. (2012). The impact of child abuse history, PTSD symptoms, and anger arousal on dating violence perpetration among college women. *Journal of Family Violence, 27*(3), 165–175. <https://doi.org/10.1007/s10896-012-9415-7>
- Luthra, R., & Gidycz, C. A. (2006). Dating violence among college men and women: Evaluation of a theoretical model. *Journal of Interpersonal Violence, 21*(6), 717–731. <https://doi.org/10.1177/0886260506287312>
- Mackay, J., Bowen, E., Walker, K., & O'Doherty, L. (2018). Risk factors for female perpetrators of intimate partner violence within criminal justice settings: A systematic review. *Aggression and Violent Behavior, 41*, 128–146. <https://doi.org/10.1016/j.avb.2018.06.004>
- McHugh, M. C., Rakowski, S., & Swiderski, C. (2013). Men's experience of psychological abuse: Conceptualization and measurement issues. *Sex Roles, 69*, 168–181. <https://doi.org/10.1007/s11199-013-0274-3>
- McKeown, A. (2014). Attachment, personality and female perpetrators of intimate partner violence. *The Journal of Forensic Psychiatry & Psychology, 25*(5), 556–573. <https://doi.org/10.1080/14789949.2014.943792>
- Merrick, M. T., Ports, K. A., Ford, D. C., Afifi, T. O., Gershoff, E. T., & Grogan-Kaylor, A. (2017). Unpacking the impact of adverse childhood experiences on adult mental health. *Child Abuse & Neglect, 69*, 10–19. <https://doi.org/10.1016/j.chiabu.2017.03.016>
- Miller, E., Tancredi, D. J., McCauley, H. L., Decker, M. R., Virata, M. C. D., Anderson, H. A., Stetkevich, N., Brown, E. W., Moideen, F., & Silverman, J. G. (2012). “Coaching boys into men”: A cluster-randomized controlled trial of a dating violence prevention program. *Journal of Adolescent Health, 51*(5), 431–438.
- Milletich, R. J., Kelley, M. L., Doane, A. N., & Pearson, M. R. (2010). Exposure to interparental violence and childhood physical and emotional abuse as related to physical aggression in undergraduate dating relationships. *Journal of Family Violence, 25*(7), 627–637. <https://doi.org/10.1007/s10896-010-9319-3>
- Office for National Statistics. (2019). Domestic abuse prevalence and trends, England and Wales: year ending March 2019. <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/domesticabuseprevalenceandtrendsendglandandwales/yearendingmarch2019>
- Orcutt, H. K., Garcia, M., & Pickett, S. M. (2005). Female-perpetrated intimate partner violence and romantic attachment style in a college student sample. *Violence and Victims, 20*(3), 287–302. <https://doi.org/10.1891/vivi.20.3.287>
- Puetz, V. B., Kohn, N., Dahmen, B., Zvyagintsev, M., Schüppen, A., Schultz, R. T., Heim, C. M., Fink, G. R., Herpertz-Dahlmann, B., & Konrad, K. (2014). Neural response to social rejection in children with early separation experiences. *Journal of the American Academy of Child & Adolescent Psychiatry, 53*(12), 1328–1337. <https://doi.org/10.1016/j.jaac.2014.09.004>
- R Core Team. (2020). R: *A language and environment for statistical computing*. R Foundation for Statistical Computing. <https://www.R-project.org/>
- Rausch, M. A. (2016). Adverse childhood experiences and intimate partner violence in lesbian and queer relationships. *Journal of LGBT Issues in Counseling, 10*(2), 97–111. <https://doi.org/10.1080/15538605.2016.1157556>

- Rennison, C. M., & Welchans, S. (2000). *Intimate partner violence*. US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. https://popcenter.asu.edu/sites/default/files/problems/domestic_violence/PDFs/Rennison&Welchans_2000.pdf
- Riggs, D. S., & O'Leary, K. D. (1989). A theoretical model of courtship aggression. In M. A. Pirog-Good & J. E. Stets (Eds.), *Violence in dating relationships: Emerging social issues* (pp. 53–71). Praeger Publishers.
- Riggs, S. A., & Kaminski, P. (2010). Childhood emotional abuse, adult attachment, and depression as predictors of relational adjustment and psychological aggression. *Journal of Aggression, Maltreatment & Trauma*, 19(1), 75–104. <https://doi.org/10.1080/10926770903475976>
- Ro, E., & Lawrence, E. (2007). Comparing three measures of psychological aggression: Psychometric properties and differentiation from negative communication. *Journal of Family Violence*, 22(7), 575–586. <https://doi.org/10.1007/s10896-007-9109-8>
- Schilling, E. A., Aseltine, R. H., & Gore, S. (2007). Adverse childhood experiences and mental health in young adults: A longitudinal survey. *BMC Public Health*, 7(1), 30. <https://doi.org/10.1186/1471-2458-7-30>
- Scott-Storey, K., O'Donnell, S., Ford-Gilboe, M., Varcoe, C., Wathen, N., Malcolm, J., & Vincent, C. (2023). What about the men? A critical review of men's experiences of intimate partner violence. *Trauma, Violence & Abuse*, 24(2), 858–872. <https://doi.org/10.1177/15248380211043827>
- Shen, A. C. T. (2014). Dating violence and posttraumatic stress disorder symptoms in Taiwanese college students: The roles of cultural beliefs. *Journal of Interpersonal Violence*, 29(4), 635–658. <https://doi.org/10.1177/0886260513505213>
- Shepard, M. F., & Campbell, J. A. (1992). The abusive behavior inventory: A measure of psychological and physical abuse. *Journal of Interpersonal Violence*, 7(3), 291–305. <https://doi.org/10.1177/088626092007003001>
- Sonkin, D. J., & Dutton, D. (2003). Treating assaultive men from an attachment perspective. *Journal of Aggression, Maltreatment & Trauma*, 7(1–2), 105–133. https://doi.org/10.1300/J146v07n01_06
- Sorenson, S. B., & Taylor, C. A. (2005). Female aggression toward male intimate partners: An examination of social norms in a community-based sample. *Psychology of Women Quarterly*, 29(1), 78–96. <https://doi.org/10.1111/j.1471-6402.2005.00170.x>
- Stets, J., & Straus, M. (1992). *Gender differences in reporting marital violence. Physical violence in American families*. Transaction Publishers.
- Straus, M. A. (2008). Dominance and symmetry in partner violence by male and female university students in 32 nations. *Children and Youth Services Review*, 30(3), 252–275. <https://doi.org/10.1016/j.childyouth.2007.10.004>
- Stuart, G. L., Moore, T. M., Gordon, K. C., Ramsey, S. E., & Kahler, C. W. (2006). Psychopathology in women arrested for domestic violence. *Journal of Interpersonal Violence*, 21(3), 376–389. <https://doi.org/10.1177/0886260505282888>
- Tan, M., & Mao, P. (2023). Type and dose-response effect of adverse childhood experiences in predicting depression: A systematic review and meta-analysis. *Child Abuse & Neglect*, 139, 106091. <https://doi.org/10.1016/j.chiabu.2023.106091>
- Tjaden, P., & Thoennes, N. (2000). *Extent, nature, and consequences of intimate partner violence*. U.S. Dept. of Justice, Office of Justice Programs, National Institute of Justice. <https://www.ncjrs.gov/pdffiles1/nij/181867.pdf>
- Turell, S. C., Brown, M., & Herrmann, M. (2018). Disproportionately high: An exploration of intimate partner violence prevalence rates for bisexual people. *Sexual and Relationship Therapy*, 33(1–2), 113–131. <https://doi.org/10.1080/14681994.2017.1347614>
- Umberson, D., Williams, K., Thomas, P. A., Liu, H., & Thomeer, M. B. (2014). Race, gender, and chains of disadvantage: Childhood adversity, social relationships, and health. *Journal of Health and Social Behavior*, 55(1), 20–38. <https://doi.org/10.1177/0022146514521426>
- Unger, J. A. M., & De Luca, R. V. (2014). The relationship between childhood physical abuse and adult attachment styles. *Journal of Family Violence*, 29(3), 223–234. <https://doi.org/10.1007/s10896-014-9588-3>
- Velopoulos, C. G., Carmichael, H., Zakrisson, T. L., & Crandall, M. (2019). Comparison of male and female victims of intimate partner homicide and bidirectionality—An analysis of the national violent death reporting system. *Journal of Trauma and Acute Care Surgery*, 87(2), 331–336. <https://doi.org/10.1097/TA.0000000000002276>
- West, C. M. (2012). Partner abuse in ethnic minority and gay, lesbian, bisexual, and transgender populations. *Partner Abuse*, 3(3), 336–357. <https://doi.org/10.1891/1946-6560.3.3.336>
- Whitfield, C. L., Anda, R. F., Dube, S. R., & Felitti, V. J. (2003). Violent childhood experiences and the risk of intimate partner violence in adults: Assessment in a large health maintenance organization. *Journal of Interpersonal Violence*, 18(2), 166–185. <https://doi.org/10.1177/0886260502238733>
- World Health Organization. (2020). Clinical management of rape and intimate partner violence survivors: developing protocols for use in humanitarian settings. <https://apps.who.int/iris/bitstream/handle/10665/331535/9789240001411-eng.pdf>

How to cite this article: McGrath, A., Mackay, J., & Baguley, T. (2024). The impact of childhood adversity on female-perpetrated intimate partner violence in young adulthood. *Legal and Criminological Psychology*, 00, 1–19. <https://doi.org/10.1111/lcrp.12259>