

Factors associated with the perpetration of interpersonal violence and abuse in young people's intimate relationships

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ABSTRACT

This paper examines individual, peer and societal factors associated with young people's instigation of physical, sexual and emotional abuse, including abuse and control through new technologies, in their intimate relationships. The mixed-method research included a survey of 4564 young people aged 14–17 across five European countries. Young people's advisory groups were convened in each country to work alongside the research teams. Across the European sample, 38% of boys and 45% of girls stated they engaged in some form of emotional violence, 10% of girls and 6% of boys reported the use of physical violence and 20% of boys and 4% of girls reported using sexual violence (pressure and/or physical force). A range of intersecting factors, including wider experiences of violence and abuse, gendered attitudes and consumption of online pornography, were associated with the use of intimate violence, although these differed by gender. The research provides new European insights through measuring the association with three discrete forms of IPVA as well as exploring perpetration by both males and females. A Prevention and intervention programmes seeking to respond to violence in young people's relationships need to develop effective strategies to address the interplay of these factors across young people's lives.

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Introduction

International research on the prevalence of interpersonal violence and abuse (IPVA) in young people's relationships has established the significance and the impact of the problem. This research has informed numerous abuse prevention programmes that target adolescents with the aim of ending abusive experiences in both present and future relationships. However, such initiatives have been described as under-theorised and as failing to take account of the diversity of adolescent populations (Hellevik et al. 2015). This European study focuses on the complex interplay of factors found in association with perpetration of IPVA in adolescence and considers how interventions can build on this understanding.

Prevalence rates for IPVA vary considerably depending on the populations sampled, definitions used, forms of IPVA included and acts incorporated, making global comparisons difficult (Hérbert et al. 2019). Stonard et al.'s (2014) evidence synthesis on the prevalence of IPVA victimisation in adolescent relationships (under the age of 18) determined that between 51–59% of girls and 45–55% of boys reported

emotional abuse and between 22–29% of girls and 19–27% of boys reported physical violence. Similarly, Wincentak, Connolly, and Card's (2017) meta-analysis found higher levels of physical perpetration by female adolescents, aged 13–16, compared to males. Meta-analysis by Park and Kim (2018) with a wider age range of 13–22, and Wincentak, Connolly, and Card (2017) both showed that young women reported greater sexual violence victimisation compared to young men.

However, to fully understand the issues involved we need to also address both prevalence and impact. (Barter et al. 2017) found statistically significant differences in respect of gender and IPVA subjective impact: young women were more likely than young men to attribute a negative impact (feeling scared and upset) to their experiences of victimisation whilst young men were more likely to state an affirmative only impact (thought it was funny) or report no effect. Similarly, in New Zealand, Jackson, Cram, and Seymour (2000) found that girls reported more negative emotional responses to their experiences of IPVA than boys. Correspondingly, research in the US has shown similar associations between gender and impact, including the impact of physical injury (Hamby et al. 2012, Foshee 1996; 2001; Molidor and Tolman 1998). A review of the mental health impacts of IPVA (Barter and Stanley 2016) found that young women aged 18 and under generally reported greater adverse health outcomes, including depression and eating disorders, compared to young men.

Alongside prevalence and impact, research has sought to identify risk factors associated with both victimisation and perpetration of IPVA in young people's relationships. The evidence has consistently shown that young people with a history of familial domestic violence, child abuse or punitive parenting are at greater risk of IPVA victimisation and perpetration in their own intimate relationships (Temple et al. 2013; Hérbert et al. 2019; Park and Kim 2018). Family violence represents one of the most consistently identified risk factors for adolescent IPVA, although most studies are based in North America (Park and Kim 2018). In a systematic review of research on factors associated with digital IPVA Hellevik (2018) found that previous exposure to IPV was the most frequent factor in the reviewed studies. The review also found that the vast majority of included studies (70%) were conducted in the USA.

Two theories have been widely drawn upon to explain this associations: Social Learning Theory (SLT) and Attachment Theory. SLT argues that observation of violence in the family or peer groups creates attitudes, concepts and norms about how to behave within intimate relationships and an associated acceptability of violence within specific contexts (Corvo and deLara 2010). Attachment Theory asserts that family violence or punitive parenting styles can influence the development of negative patterns of social behaviour during childhood which can then be transferred to adolescent intimate relationships (Bowlby 1969). It is argued that an absence of close and supportive relationships in childhood may result in insecure attachments in later intimate relationships (Rapoza and Baker 2008), characterised by fearful, anxious and mistrusting behaviour (Stonard 2016). Different attachment traits may therefore result in a fear of intimacy or obsession and extreme jealousy and anger (Bowlby 1984). However, we also know that many young people who experience family violence do not experience violence in their own relationships, thus other moderating factors come into play, such as wider social beliefs and attitudes to violence (Temple et al. 2013; Pease and Flood 2008). A recent review (Radford et al. 2019) highlights the complexity of the relationship between childhood exposure to domestic violence and subsequent victimisation or perpetration and argues for the significance of gender and socio-ecological factors.

Evidence indicates adolescents who bully their peers may also act in similar ways with their intimate partners (Miller et al. 2013; Park and Kim 2018). The meta-analysis by Gracia-Leiva et al. (2019) found an association between being physically, psychologically or cyber bullied by peers or bullying and an increased risk of IPVA perpetration for young people aged 12–26. Longitudinal studies have shown that bullying behaviour precedes physical intimate violence perpetration for both females and males (Foshee et al. 2014, 2016) and therefore constitutes a risk factor for later IPVA. Lastly, children who bully can also be victims themselves (Olweus 1978), and Foshee et al. (2016) found that being both a 'bully' and a 'bully-victim' was

associated with increased risks of physical IPVA perpetration. A conceptual overlap has been suggested to explain this association (Miller et al. 2013; Falb et al. 2011), based on the premise that perpetration of different forms of violence has a common background in the desire to exercise power and control over others (Falb et al. 2011) as well as the existence of inequitable attitudes and peer norms (Reyes et al. 2016).

Risks for both victimisation and perpetration include having friends who have experienced IPVA victimisation, perpetrated IPVA and/or associating with peers who are generally anti-social, aggressive or violent (Arriaga and Foshee 2004; Garthe et al. 2017; Park and Kim 2018, Hébert et al. 2017, Gracia-Leiva et al. 2019); Conversely, having pro-social friends and peers can act as a protective factor (Loeb, Dardorff, and Lahiff 2014, Garthe et al. 2017). Several studies suggest that peer behavioural norms are sufficiently influential to affect individual adolescent relationship IPVA behaviours (Leen et al. 2013; Gracia-Leiva et al. 2019). The Social Norm Approach (SNA) theorises that people have mistaken perceptions of the attitudes and behaviour of others and that the prevalence of risky behaviour is usually overestimated, while protective pro-social behaviours are underestimated (Berkowitz 2005). This may justify and increase risky behaviour as well as the likelihood of an individual remaining silent about any harm caused and thereby reinforcing social tolerance.

Linked to the above, research has shown that negative gendered attitudes and associated roles are key risk factors in understanding IPVA victimisation and perpetration. Young people who normalise or support the use of intimate violence through the endorsement of negative gender attitudes, including the rape myth (women and girls are to blame for sexual violence due to 'leading boys and men on') or validate victim blaming discourses, are more at risk of IPVA victimisation and instigation in their intimate relationships (Reyes et al. 2016; McCauley et al. 2013; Foshee et al. 2001; Wolfe et al. 2004; Temple et al. 2013). The Theory of Gender and Power (TGP) originally developed by Connell (1987), hypothesises that exposure to traditional beliefs around gendered cultural norms associated with scripts of hegemonic masculinity (active, controlling, embodied) and femininity (passive; vulnerable, disembodied) reinforces IPVA behaviour. Furthermore, research has shown that young people who hold attitudes which condone IPVA, and specifically male violence to women, are themselves more likely to use violence and abuse in their own relationship or experience IPVA themselves (author's own). However, these attitudes are themselves underpinned by wider structural mechanisms which seek to support IPVA through institutionalised gender-based inequalities (Pease and Flood 2008, Authors own 2018).

In addition, recent studies have indicated that watching online pornography may reinforce negative attitudes towards girls and women especially in relation to supporting the acceptability of male sexual aggression (Jochen and Valkenburg 2016). The impact of online pornography consumption on young people's IPVA behaviour has been insufficiently examined, and studies exploring this association have focused exclusively on sexual coercion (Stanley et al. 2016; Jochen and Valkenburg 2016).

Overall, studies on adolescent IPVA risk factors have generally concentrated on a limited number of associated factors and mainly, although not exclusively, addressed physical and sexual forms of abuse. Gracia-Leiva et al. (2019) argues from their meta-analysis that future research should seek to analyse how these risk factors are interrelated and to study their accumulative effects. They also identify a need for studies to be conducted outside North America arguing that research is required to explore the association between cultural differences and IPVA risks, especially in Latin America and Europe. In response to this gap in understanding, this paper will explore a range of factors associated with young men's and young women's perpetration of physical, sexual and emotional (both online and face-to-face) IPVA, based on a European sample, and thereby provide new insights to inform the development of more effective prevention and intervention strategies.

The current study

Methodology

The Safeguarding Teenage Relationships (STIR) study included a school-based cross-section survey of 4564 adolescents and in-depth interviews with 100 young people in England, Italy, Norway, Bulgaria and Cyprus. The study explored young people's online and face-to-face experiences of IPVA and associated risk factors. A young people's advisory group was convened in each country to comment on all aspects of the study from design of the research questions, instruments, analysis, outputs and dissemination including presenting conference papers (see (authors own) for a fuller explanation) This paper concentrates on young people's survey responses to questions concerning IPVA perpetration and associated risk factors and does not include young people's experiences of IPVA victimisation which has been addressed in previous papers (authors own).

Sample

The five European countries were selected to provide a wide geographical spread as well as diversity in levels of gender equality. We used the European Institute for Gender Equality Index (2013) to ensure our sample contained countries with high levels (England and Norway) and lower levels (Bulgaria, Cyprus and Italy) of gender equality as measured by this European instrument. Although we aimed to achieve a representative sample in each country this was not always possible due to recruitment difficulties.

The paper survey was administered in 45 schools across five countries. A variety of recruitment strategies were employed including using the research teams current school contacts, snowballing and random emailing of schools across regions. A total of 4564 young people aged 14–17 completed the survey, with mean ages ranging between 14.7 years in England and 15.3 in Italy. Although we recognise that IPVA can be experienced at a younger age (Gadd et al. 2015), we were unable to gain approval in some countries to include participants below the age of 14 and it was therefore decided to implement a higher age threshold to ensure consistency. In each country, approximately 1000 participants completed the survey except in Cyprus where, due to the smaller population size, 500 young people took part. An equal number of males and females participated except in Italy where slightly more boys completed the survey than girls.

Almost three-quarters of survey participants reported having had at least one relationship and this did not differ substantially between countries. The analyses presented in this paper are based on the sub-sample of 3277 young people who said they had been in a relationship.

Ethics

Young people gave their written and informed consent before completing the confidential survey. Parents received an information sheet and a consent form regarding the study. Care was taken to ensure that students worked on the questionnaires individually and without being overseen. Young people were informed they could stop at any time, without providing a reason. They could either leave the room, or if they preferred, remain and complete a quiz at the end of the survey until the session ended. After the fieldwork researchers stayed in the school so that young people could talk to them in private if they wished. All young people were given a leaflet containing contact details for relevant support services and school counsellors. Ethical scrutiny and approval were provided by the relevant University Ethics Committee.

IPVA measures

Measures were developed in collaboration with the young people's advisory groups. All measures were included in a single paper survey, translated into the required languages. The survey incorporated questions about experiences of both perpetration and victimisation in relation to different forms of IPVA and their impacts. The measures used were based on previous studies of young people's experiences of IPVA (Barter et al. 2009; Radford et al. 2011) and a shorter version of the measure has been independently validated (Yakubovich et al. 2019).

Three types of IPVA were included: emotional violence (either online or offline); physical violence; and sexual violence. Although we asked young people about their experiences of sending and/or receiving sexual images, including if they had felt pressured, unfortunately we did not ask about young people's perpetration of online sexual violence in a way which could be included in this analysis (see Wood et al 2015).

A range of questions were used to measure each form of abuse and responses were combined to produce an overall measure for each abuse type. For each question young people could respond: never; once; a few times or often. To consolidate sample size for analysis we used a binary category of no/yes for perpetration. We also asked young people why they had acted in this way however due to significant missing responses we were unable to analyse this data. Young people self-reported their use of violence. We acknowledge that the under-reporting of violence perpetration is likely to have been an issue due to social desirability (Sugarman and Hotaling 1997). However, despite this, a relatively high proportion of young people reported using violence or abuse against a partner (see Table 1). Overall, the probability of identifying as a perpetrator increased with age from 33% at the age of 13–59% at the age of 17. Perpetration was most common in Italy (62%, $n = 525$), followed by Bulgaria (51%, $n = 320$), and Cyprus (48%, $n = 240$) with the lowest perpetration rates observed in Norway (26% $n = 139$).

Table 1. Young people's self-reports of perpetrating interpersonal violence and abuse. (Table view)

		No		Yes	
		%	N=	%	N=
Emotional violence	Male	62%	1044	38%	645
	Female	55%	846	45%	684
Physical violence	Male	94%	1600	6%	107
	Female	90%	1382	10%	158
Sexual violence	Male	80%	1347	20%	330
	Female	96%	1449	4%	66

Most young people reported an opposite sex partner only. Just over 1% of young women and 1% of young men had a same sex partners only ($n = 35$ and 33 respectively), a smaller proportion reported both male and female partners. Unfortunately, the numbers prohibited separate analysis for this group.

Emotional abuse was the most commonly reported form of abuse used by young people. The measure considered both online and face-to-face (off-line) aspects of abuse. Young people were asked whether they had ever engaged in a range of behaviours. Questions about face-to-face abuse included: Have you ever ... 'put your partners down in a nasty way; shouted at your partners/ screamed in their face/ called them names; said negative things to your partners about their appearance/body/friends/family; and, threatened to hurt any of your partners physically'. The questions about online behaviour asked whether the participant had ever ... 'put your partner down in a nasty way or sent them nasty messages online or via mobile phones; ever posted nasty messages about your partners online that others could see; ever sent your partner threatening messages online or by mobile phones; used mobile phones or social networking sites to try and control who your partner can be friends with or where they can go; constantly checked up on what your partners have been doing / who they have been seeing; used mobile phones or social networking sites to stop your partner's friends liking them'. Thus, we sought to understand the ways in which young people attempt to restrict and control their intimate partners' movements across both physical and virtual spaces. As measures of online forms of abuse are under-developed, we calculated the Cronbach alpha to confirm that the items formed a reliable scale which they did (Cronbach alpha = 0.81).

To summarise, questions about face-to-face behaviour identified acts of direct criticism and abuse, while those addressing online activity primarily reflect coercively controlling behaviours (Stark 2009) and surveillance. Overall, 45% of young women and 38% of young men reported perpetrating emotional abuse.

Physical violence perpetration was measured using two questions: 'Have you ever used physical force such as slapping, pushing, hitting or holding them down?' and 'Have you ever used more *severe* physical force such as punching, strangling, beating them up, hitting them with an object?'. The proportions reporting the use of physical violence were substantially lower compared to emotional IPVA but still substantial: 10% of girls and 6% of boys had used physical force against a partner. However, a different gender picture emerges when we look at the use of severe physical force only where 1.2% of girls and 2.8% of boys reported using this level of violence.

Finally, sexual violence perpetration was measured by four questions which addressed both emotional pressure and physical force (Kelly 1987). Participants were asked: 'Have you ever pressured any of your partners into kissing or intimate touching'; 'forced any of your partner/s into intimate touching'; 'pressured any of your partners into having sexual intercourse'; and 'forced any of your partners into having sexual intercourse'. Findings showed a marked gender pattern; Young men were more likely to identify as instigators of sexual violence compared to young women (20% and 4% respectively). The sample size for young women ($n = 66$) prohibited further analysis in respect of this group.

Overall, and reflecting previous research, young women were slightly more likely than young men to report having ever used physical or emotional violence against their partner(s) whilst young men reported much higher levels of sexual perpetration. However, we need to acknowledge that the gendered impact of IPVA remains pertinent when viewing prevalence rates for IPVA.

Associated risk factors

We examined two main sets of risk factors: The first set measured young people's individual experiences of childhood violence and abuse while the second set explored young people's wider experiences and attitudes. For this analysis, the second set of measures included gender attitudes and regular consumption of online pornography. All of the above factors are often correlational rather than causal and some may be indicative of various influences.

Set 1: Wider experiences of childhood violence and abuse

To measure family violence, participants were asked whether any adults in their household 'regularly used physical force (punching, hitting, slapping)' or 'constant name calling/shouting' against the respondent, other children and/or other adults in their household. If participants reported any physical or emotional violence against any member of the household, then the young person was defined as living in a violent household.

To measure peer violence, respondents were asked if they had ever been bullied and if they have ever bullied anyone else. Due to classroom time restraints, we did not ask any wider questions on the form or severity of the bullying or wider experiences of peer violence. Following the bullying literature (Olweus 1978), young people were classified into four sub-groups: not a bully or a victim; bully only; victim only; and bully and victim. Lastly, in this section we asked participants if their friends used aggression or intimidation against other young people. Young people could respond: yes; no; or don't know.

Set 2: Attitudes and wider experiences

To measure gender attitudes, participants were asked to what extent they agreed with the following statements:

For the most important jobs it is better to choose a man than a woman; Women lead men on sexually and then complain about the attention they get; and It is sometimes acceptable for a man to hit a woman if she has been unfaithful.

The responses were collected using a five-points Likert scale from 'agree a lot' to 'disagree a lot'. A summative index of gendered attitudes was created by accumulating the answers to three questions. Respondents were classified into three groups according to whether they displayed mainly positive (egalitarian), neutral or negative gender attitudes. The aim was to create groups large enough to enable statistical analysis while providing a good representation of the data. The groupings also reflect the fact that the summative index was positively skewed: around 35% of the respondents disagreed or strongly disagreed with all three sentences (creating a summative value of below 6), although the results did differ across countries with England and Norway reporting less agreement with the statements, perhaps reflecting the high gender-equality levels of these countries. Young people scoring 6 or below were categorised as having positive/egalitarian gender attitudes. In contrast, values above 10 reflect agreement with at least one statement and were categorised as indicating negative gender attitudes.

Using different index thresholds did not significantly alter the results. Descriptive analysis showed that, across countries, higher values in the index were associated with an increased probability of IPVA instigation, for both girls and boys. The index has already been shown to be a useful predictor of sexual IPVA (Wood et al. 2015). It is also recognised that these norms and beliefs are further mediated by wider inequalities based on race, ethnicity, culture, religion, socio-economic background and disability (Authors own 2015). However, due to our small sample size, we were not able to include these variables in this analysis.

Lastly, we asked participants about their consumption of online pornography. As many young people may inadvertently or occasionally view online pornography, participants were asked 'if they *regularly* watched online pornography'. Boys (45%) were much more likely to be regular pornography viewers than girls (5%).

Analysis

Logistic regression was used to explore the risk factors associated with perpetrating violence and abuse in teenage intimate relationships. Logistic regression allows for the exploration of predictors of violence while controlling for the impact of other known predictors. This is important given that the predictors of violence often overlap. For example, there is a positive association between violence in the household and negative gender attitudes. In addition to the variables listed above, age and country of residence are used as control variables.¹

The regressions are based on pooled data for the five countries included in the study. The decision to pool the data in a single regression was undertaken to maximise the sample size. This was justifiable as the predictors of IPVA were largely consistent across countries.²

Limitations

The cross-sectional survey design means we can only demonstrate associations and not causation as we cannot ascertain the direction of the relationship identified; we do not know if the factors included in our analysis predicted or followed IPVA perpetration. Longitudinal data would allow the testing of these effects; in the absence of such data, the interpretation offered relies on existing theory in the field. Nevertheless, we can say if factors are associated with increased levels of IPVA perpetration. We were also unable to gain a representative sample across all countries and we cannot therefore assume that our sample breakdowns match adolescent populations in each country.

Findings

This section presents the results from the multivariate analyses. Unless otherwise stated, 'significance' means statistical significance. Table 2 shows the results of a set of logistic regressions that assess the probability of being a perpetrator of physical and emotional violence for boys and girls, as well as sexual violence for boys. The table shows odds ratios, which compare the conditional probability³ of being a perpetrator against the probability of not being a perpetrator. An odds ratio above one indicates that a factor is associated with increased probability of being a perpetrator, while values below one indicates a reduced risk.

Table 2. Logistic regressions. Instigation of violence in intimate relationships, by gender (odds ratio). (Table view)

	Male			Female	
	Physical	Emotional	Sexual	Physical	Emotional
Age(ref:14)					
15	0.99 [0.54,1.83]	1.48* [1.09,2.02]	1.2 [0.81,1.76]	1.45 [0.85,2.49]	1.67** [1.22,2.28]
16	1.24 [0.66,2.33]	1.84*** [1.34,2.53]	1.11 [0.74,1.65]	1.65 [0.96,2.85]	2.20*** [1.59,3.06]
17	2.29* [1.07,4.90]	3.44*** [2.21,5.35]	1.24 [0.72,2.13]	2.00* [1.05,3.78]	2.04*** [1.36,3.07]
Gender attitudes (ref: egalitarian attitudes)					
Neutral	1.03 [0.47,2.26]	1.03 [0.75,1.42]	1.39 [0.91,2.13]	0.96 [0.66,1.41]	1.66*** [1.31,2.10]
Negative	3.16** [1.47,6.83]	1.73** [1.21,2.47]	2.87*** [1.81,4.56]	1.1 [0.56,2.17]	1.47 [0.90,2.39]
Violence in the household					
	2.79*** [1.77,4.42]	2.20*** [1.64,2.94]	2.39*** [1.71,3.33]	2.61*** [1.77,3.84]	2.61*** [1.98,3.42]
Viewing Pornography					
	1.28 [0.78,2.09]	1.41** [1.11,1.79]	2.46*** [1.80,3.34]	1.03 [0.54,1.99]	1.03 [0.63,1.66]
Bullying (ref: no bullying)					
Bully and victim	1.97* [1.04,3.74]	2.48*** [1.71,3.59]	1.76* [1.12,2.76]	1.78 [0.98,3.24]	1.39 [0.89,2.15]
Only victim	1.48 [0.73,3.01]	1.28 [0.91,1.81]	1.22 [0.78,1.91]	1.42 [0.92,2.20]	1.14 [0.87,1.50]
Only bully	2.15* [1.19,3.88]	1.62** [1.16,2.27]	1.60* [1.07,2.38]	1.98* [1.02,3.86]	2.63*** [1.56,4.45]
Aggressive friends (ref:No)					
Yes	1.67 [0.95,2.94]	1.78*** [1.29,2.46]	1.49 [1.00,2.23]	1.26 [0.75,2.14]	1.67** [1.16,2.39]
Do not know	0.68 [0.36,1.32]	1.42* [1.06,1.90]	1.05 [0.73,1.52]	0.8 [0.48,1.34]	1.24 [0.93,1.67]
Country (ref: Bulgaria)					
Cyprus	0.88 [0.40,1.93]	1.11 [0.72,1.69]	0.97 [0.56,1.68]	0.94 [0.51,1.73]	1.42 [0.93,2.17]
England	0.91 [0.40,2.07]	0.69 [0.45,1.07]	0.48* [0.26,0.89]	0.62 [0.32,1.18]	0.95 [0.62,1.46]
Italy	1.68 [0.90,3.13]	2.60*** [1.81,3.73]	5.62*** [3.58,8.82]	0.59 [0.30,1.15]	2.18*** [1.42,3.34]

	Male			Female	
	Physical	Emotional	Sexual	Physical	Emotional
Norway	1	0.45***	0.36**	0.43*	0.61*
	[0.43,2.33]	[0.28,0.72]	[0.18,0.74]	[0.22,0.88]	[0.39,0.95]
Sample size	1599	1585	1581	1458	1448
Mc Fadden R^2	0.16	0.15	0.22	0.08	0.10

Note: Odds ratio; 95% confidence intervals in brackets. Significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Young people's wider experiences of violence

The results from the logistic regression support the association between IPVA and violence in other spheres of young people's lives. Being exposed to violence in the household showed a positive significant association with perpetration of IPVA across all IPVA types for both genders (OR between 2.2 and 2.79). Additional tests (not shown) indicated that the effect persisted regardless of whether the young person was a victim of violent behaviour (child abuse) or if violence was directed towards other members of the household (domestic violence). Thus, both direct victimisation and exposure to family violence were associated with all forms of IPVA perpetration in young people's relationships.

Violence against peers was captured through two variables, bullying and aggressive friendship groups. While there was some correlation between these variables, including both allowed for a more nuanced examination of peer effects. Being a bully or a bully-victim was associated with increased probability of being a perpetrator with some differences by gender. For male respondents being a bully or a bully-victim was associated with increased probability of emotional (OR = 1.62 bully, 2.48 bully-victim), physical (OR 2.15, 1.97 respectively) and sexual violence (OR 1.6, 1.79 respectively) perpetration. For young women, being a bully was associated with increased probability of perpetration of physical (OR 1.98) and emotional (OR 2.63) violence, but no association was found for bully-victims. No significant effects were found for victims of bullying.

Having aggressive friendship groups was associated with an increased probability of perpetrating IPVA.⁴ Boys whose friends were aggressive towards others or who 'don't know' were significantly more likely to perpetrate emotional violence (OR 1.78 and 1.42 respectively). The effect was also significant for girls; having aggressive friends was associated with increased probability of emotional IPVA perpetration (OR 1.67). Although, for boys, a positive association was also identified for physical and sexual IPVA, this was not at a statistically significant level.

Young people's general experiences and attitudes

Young people, irrespective of gender, who reported negative gender attitudes were more likely to have been involved in IPVA perpetration. Significant effects were observed for male respondents who expressed the most negative gender attitudes (i.e. agreeing with at least one negative statement); OR physical 3.16, sexual 2.87, emotional 1.73. Young men exhibiting neutral gender attitudes were generally not at higher risk of perpetration than those with egalitarian attitudes: although a positive association was found for sexual violence perpetration and neutral attitudes this was not statistically significant. Young women exhibiting neutral gender attitudes (i.e. who did not fully disagree with the statements) were more likely to report perpetration of emotional violence (OR 1.66). The limited number of girls who reported negative gender attitudes meant that the association, while positive, was not statistically significant.

Amongst boys, regularly watching pornography was associated with increased probability of perpetrating emotional (OR 1.41) and notably sexual (OR 2.46) IPVA. The coefficient for physical violence was positive but not significant. Given the low levels of pornography consumption reported by young women, it was to be expected that no significant association was found.

Discussion

Our findings add to the evidence base on risk factors and IPVA perpetration in young people's relationships. However, we need to reiterate here that our cross-sectional design can only demonstrate associations and not causation. Nevertheless, a key strength of the study was the inclusion of a wide range of IPVA behaviours, including emotional and online forms of abuse. Although, the intersection of risk factors differed by gender it remains clear that no single factor is allied with IPVA perpetration. It is evident that young people's perpetration of IPVA is a complex and multifaceted issue and young people require differential levels of support depending on the risks they encounter.

Consistent with other studies, family violence and abuse were central factors associated with perpetration of IPVA (Barter et al. 2009; Temple et al. 2013; Hébert et al. 2019, Garthe et al. 2017; Park and Kim 2018). However, our research has provided new insights through measuring the association with three discrete forms of IPVA as well as exploring perpetration by both males and females. Family violence was significantly associated with all forms of IPVA perpetration irrespective of gender; representing one of only two risk factors associated with girls' use of physical violence. Our findings resonate with social learning theory which argues that violence within the family home may contribute to children and young people learning that violence and abuse are acceptable or normalised aspect of intimate relationships and may seek to replicate these behaviours in their own intimate interactions (Heilman and Barker 2018). However, this is one factor among others and not every child who experiences family violence will also go on to initiate violence in their own relationships.

Amongst male respondents, being a bully or a bully-victim was associated with increased probability of being a perpetrator of all forms of IPVA. In contrast, for female respondents the only significant association was in respect to being a bully and emotional IPVA. Numerous studies have identified differences between bullies and bully-victims with most finding that, for bully-victims, victimisation predates their use of bullying behaviours (Olweus 1978). Bully-victims compared to bullies generally display deficits in emotional control, adjustment problems and self-regulation (Shetgiri 2013) and heightened levels of hostility (Olweus 1993). In contrast, Wolke et al. (2000) refer to bullies as 'cool manipulators' as their actions are intentional and instrumental in achieving their goals, constituting an efficacious social strategy (Perry, Perry, and Kennedy 1992).

Foshee et al. (2016) in their study of IPVA risk factors also identified similar associations across bullying categories although only in relation to physical IPVA. They also argue that bullies and bully-victims have greater risk of IPVA instigation than young people who are not involved in bullying although for different reasons: bully- victims because of their emotional stress and lack of self-control and bullies due to their ability to exert control and gain social status over peers and partners which serves to reinforce their wider social standing (Wolfe et al. 2004). Our findings support this contention, although only in respect to boys as female bully-victims were not at a higher risk of IPVA perpetration. Female bully-victims may therefore restrict their negative behaviours to peers as, unlike boys, either they do not feel the need to replicate these behaviours with intimate partners or they are less able to do so, perhaps due to gendered scripts around hegemonic femininity and masculinity, continuously reinforced through institutionalised heteronormality (Renold and Ringrose 2008; Tolman, Davis, and Bowman 2016; Aghtaie et al. 2018). However, recent literature has identified a growing problem with adolescent female aggression and such work argues that, due to the historical focus on boys' negative behaviours, we know less about risk factors for girls (Cotter and Smokowski 2017).

Our research also identified that having aggressive peer groups was significantly associated with perpetration of emotional violence for both genders; although a positive association was found for physical and sexual violence, this was not statistically significant. A possible explanation may be that young people who perpetrate IPVA seek out peers who provide a conducive environment in which aggression and coercion are viewed as an acceptable mechanism to achieve social status. Alternatively, young people whose

peer groups act aggressively may seek to align themselves with these behavioural and attitudinal norms, including in their intimate relationships. Irrespective of the direction of the association, group norms which position harmful behaviour as both acceptable and widespread require attention. It follows that effective interventions, especially for severe forms of IPVA perpetration, need to target young people's wider peer norms alongside delivering individual interventions that address past experiences of violence and harm (Firmin 2017).

However, we also know that attitudes and beliefs play an important, although contested, role in mediating these risk factors (Pease and Flood 2008). Our results, reflecting earlier studies (Foshee et al. 2001; Wolfe et al. 2004), showed an association between gendered attitudes and IPVA; where those with less egalitarian attitudes, regardless of gender, were more likely to report IPVA perpetration (girls only for emotional violence). This supports theoretical accounts of the ways in which beliefs which support gender inequality, hegemonic masculinity and perpetration of intimate violence intersect (Heilman and Barker 2018; Aghtaie et al. 2018) As noted earlier our analysis showed that countries with lower levels of gender equality (Bulgaria, Cyprus and Italy) reported higher levels of IPVA Perpetration. This calls for wider structural determinates of IPVA, in this instance gender inequality, to be acknowledged and challenged in both policy and practice aimed at combating IPVA.

Lastly, our findings also showed how wider influences, in this instance regular consumption of online pornography, were significantly associated with emotional and sexual IPVA perpetration by boys. As we have previously argued in relation to sexual IPVA instigation (Wood et al. 2015), pornography's misogynistic and violent depictions of sexual interactions, which often position women as passive sexualised subjects (Brunskell-Evans 2017), may be influencing boys' sexual expectations, norms and beliefs. We found in a separate analysis that boys who reported the most negative gendered beliefs were more likely to consume pornography than boys who held more egalitarian attitudes towards women (Stanley et al. 2016). This study has shown that this association was also significant for emotional IPVA perpetration (and nearly significant for physical instigation), indicating that beliefs around the acceptability of derogatory language and controlling behaviour may be reinforced through viewing online pornography. However, we need to be tentative as we cannot determine from our design if regular consumption of pornography contributes to the use of intimate violence or if young people who already use violence then consume pornography as this serves to normalise their abusive behaviour.

Conclusion

The interplay of factors associated with childhood experience of violence alongside beliefs and attitudes which normalise or support IPVA has been identified in our analysis. This intersection of factors indicates that a single theoretical framework will be insufficient to understand the complexity of this issue. Instead, multiple theoretical perspectives need to be knitted together (Kalmar and Sternberg 1988), for example, integrating the sociology of childhood and theories of gender and power (Barter et al. 2009), to enable the complexity of these factors to be understood across young people's lives and to inform an socio-ecological approach to IPVA prevention and intervention.

IPVA prevention and, to a lesser extent, intervention programmes for young people have increased over the past two decades. However, we need to ensure that the complexity of risks situated across young people's lives are recognised and addressed in these programmes. Given the strong association found between different forms of violence and abuse, programme developers need to recognise that cross-cutting approaches which seek to prevent a range of negative behaviours, for example bullying, peer community violence and IPVA, maybe more effective than isolated prevention strategies (DeGue et al. 2013; Flay et al. 2004). This underpins the need to also recognise how wider structural gender inequalities intersect with IPVA perpetration, necessitating the need for population-based prevention programmes.

However, what is also evident is that some young people who experience multiple and overlapping risk factors will require more intensive support and these are unlikely to be effectively addressed through general prevention programmes which commonly concentrate on knowledge attribution and attitudinal change (Barter et al. 2009; Gadd et al. 2015). We also need to remember that the impact of IPVA differs by gender; girls experience more severe forms of violence with greater negative outcomes compared to boys. This difference, alongside the interconnection of gendered risks, needs to be acknowledged and explored in programmes if young people are to perceive them as authentic and appropriate.

Notes

1. This allows accounting by the fact that the probability of having been a perpetrator tends to increase with age, partially reflecting the fact that older teenagers will have, on average, experienced more and probably longer relationships compared to their younger peers. Country dummies allow controlling by the fact that incidence rates vary across countries.
2. These can be provided on request.
3. Conditional on the other variables included in the model.
4. There is some collinearity between bullying and having aggressive friends. When bullying is not included in the regression the association between having aggressive friends and IPVA perpetration is significant for all forms of violence.

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References

- Arriaga, X. B., and V. A. Foshee. 2004. "Adolescent Dating Violence: Do Adolescents Follow in Their Friends', or Their Parents', Footsteps?" *Journal of Interpersonal Violence* 19 (2): 162–184.
- Barter, C., M. McCarry, D Berridge, and K. Evans. 2009. "Partner Exploitation and Violence in Teenage Intimate Relationships, London, NSPCC. or's own".
- Barter, C., and N. Stanley. 2016. "Inter-personal Violence and Abuse in Adolescent Intimate Relationships: Mental Health Impact and Implications for Practice" *International Review of Psychiatry* 28 (5): 485–503.
- Barter, C., N. Stanley, M. Wood, A. Lanau, N. Aghtaie, C. Larkins, and C. Øverlien. 2017. "Young People's Online and Face-to-Face Experiences of Interpersonal Violence and Abuse and their Subjective Impact Across Five European Countries." *Psychology of Violence* 7 (3): 375–384.
- Berkowitz, A. D. 2005. "An Overview of the Social Norms Approach." In *Changing the Culture of College Drinking: A Socially Situated Prevention Campaign*, edited by L. Lederman, L. Stewart, F. Goodhart, and L. Laitman, 193–214. Cresskill, NJ: Hampton Press.
- Bowlby, J. 1969. *Attachment and Loss: Vol 2. Separation: Anxiety and Anger*. New York: Basic Books.
- Bowlby, J. 1984. "Violence in the Family as a Disorder of the Attachment and Caregiving Systems." *The American Journal of Psychoanalysis* 4 (1): 9–27.
- Brunskell-Evans, H. 2017. *Internet Pornography: Disciplining Women Through Sexual 'Freedom'*. London: Palgrave Macmillan.
- Connell, R. W. 1987. *Gender and Power: Society, the Person, and Sexual Politics*. Stanford: Stanford University Press.
- Corvo, K., and E. deLara. 2010. "Towards an Integrated Theory of Relational Violence: Is Bullying a Risk Factor for Domestic Violence?" *Aggression and Violent Behaviour* 15 (3): 181–190.
- Cotter, K. L., and P. R. Smokowski. 2017. "An Investigation of Relational Risk and Promotive Factors Associated with Adolescent Female Aggression." *Child Psychiatry & Human Development* 48: 754–767.
- DeGue, S., G. M. Massetti, M. K. Holt, A. T. Tharp, L. A. Valle, J. L. Matjasko, and C. Lippy. 2013. "Identifying Links Between Sexual Violence and Youth Violence Perpetration: New Opportunities for Sexual Violence Prevention." *Psychology of Violence* 3: 140–156.
- European Institute for Gender Equality. 2013. *The Gender Equality Index Report*. <http://eige.europa.eu/rdc/eige-publications/gender-equality-index-2015-measuring-gender-equality-european-union-2005-2012-report>.
- Falb, K. L., H. L. McCauley, M. R. Decker, J. Gupta, A. Raj, and J. G. Silverman. 2011. "School Bullying Perpetration and Other Childhood Risk Factors as Predictors of Adult Intimate Partner Violence Perpetration." *Archives of Pediatrics & Adolescent Medicine* 165 (10): 890–894.
- Firmin, C. 2017. *Abuse Between Young People: A Contextual Account*. Abingdon: Routledge.

- Flay, B. R., S. Graumlich, E. Segawa, J. L. Burns, M. Y. Holliday, and Aban Aya Investigators. 2004. "Effects of two Prevention Programs on High-Risk Behaviors among African-American Youth: A Randomized Trial." *Archives of Pediatric & Adolescent Medicine* 158: 377–384.
- Foshee, V. A. 1996. "Gender Differences in Adolescent Dating Abuse Prevalence, Types and Injuries." *Health Education Research* 11 (3): 275–286.
- Foshee, V. A., T. S. Benefield, M. Reyes, H. Luz, M. Eastman, A. M. Vivolo-Kantor, and R. Faris. 2016. "Examining Explanations for the Link Between Bullying Perpetration and Physical Dating Violence Perpetration: do They Vary by Bullying Victimization?" *Aggressive Behavior* 42 (1): 66–81.
- Foshee, V. A., F. Linder, J. MacDougall, and S. Bangdiwala. 2001. "Gender Differences in the Longitudinal Predictors of Adolescent Dating Violence." *Preventive Medicine* 32 (2): 128–141.
- Foshee, V. A., H. L. Macnaughton-Reyes, A. M. Vivolo-Kantor, K. C. Basile, L. Chang, R. Faris, and S. T. Ennett. 2014. "Bullying as a Longitudinal Predictor of Adolescent Dating Violence." *Journal of Adolescent Health* 55 (3): 439–444.
- Gadd, D., C. Fox, M.-L. Corr, I. Butler, and S. Alger. 2015. *Young Men and Domestic Abuse*. London: Routledge.
- Garthe, R. C., T. N. Sullivan, and M. A. McDaniel. 2017. "A Meta-Analytic Review of Peer Risk Factors and Adolescent Dating Violence." *Psychology of Violence* 7: 45–57.
- Gracia-Leiva, M., A. Puente-Martínez, S. Ubillós-Landa, and D. Páez-Rovira. 2019. "Dating Violence (DV): a Systematic Meta-Analysis Review." *Anales De Psicología / Annals of Psychology* 35 (2): 300–313.
- Hamby, S., K. Nix, J. De Puy, and S. Monnier. 2012. "Adapting Dating Violence Prevention to Francophone Switzerland: A Story of Intra-Western Cultural Differences." *Violence and Victims* 27 (1): 33–42.
- Heilman, B., and G. Barker. 2018. *Masculine Norms and Violence: Making the Connections*. Washington, DC: Promundo-US. <https://promundoglobal.org/wp-content/uploads/2018/04/Masculine-Norms-and-Violence-Making-the-Connection-20180424.pdf>.
- Hellevik, P. 2018. "Digital Intimate Partner Violence and Abuse Among Youth: A Systematic Review of Associated Factors." In *Responding to Domestic Violence – Emerging Challenges for Policy, Practice and Research in Europe*, edited by S. Holt, C. Øverlien, and J. Devaney, 192–214. Jessica Kingsley Publishers.
- Hellevik, P., C. Øverlien, C. Barter, M. Wood, N. Aghtaie, C. Larkins, and N. Stanley. 2015. "Traversing the Generational Gap: Young People's Views on Intervention and Prevention of Teenage Intimate Partner Violence." In *Domestic Violence and Protecting Children: New Thinking and Approaches*, edited by N. Stanley & C. Humphreys, 34–38. London and Philadelphia: Jessica Kingsley Publishers.
- Hérbert, M., M. E. Daspe, A. Lapierre, N. Godbout, M. Blais, M. Fernet, and F. Lavoie. 2019. "A Meta-Analysis of Risk and Protective Factors for Dating Violence Victimization: The Role of Family and Peer Interpersonal Context." *Trauma, Violence and Abuse*, 20 (4) 574–590.
- Jackson, S. M., F. Cram, and F. W. Seymour. 2000. "Violence and Sexual Coercion in High School Students' Dating Relationships." *Journal of Family Violence* 15 (1): 23–36.
- Jochen, P., and P. Valkenburg. 2016. "Adolescents and Pornography: A Review of 20 Years of Research." *The Journal of Sex Research* 53 (4-5): 509–553.
- Kalmar, D. A., and R. J. Sternberg. 1988. "Theory Knitting: An Integrative Approach to Theory Development." *Philosophical Psychology* 1 (2): 153–170.
- Kelly, L. 1987. "The Continuum of Sexual Violence." In *Women, Violence and Social Control. Explorations in Sociology* (British Sociological Association Conference Volume series), edited by J. Hanmer and M. Maynard, 46–59. London: Palgrave Macmillan.
- Leen, E., E. Sorbring, M. Mawer, E. Holdsworth, B. Helsing, and E. Bowen. 2013. "Prevalence, Dynamic Risk Factors and the Efficacy of Primary Interventions for Adolescent Dating Violence: An International Review." *Aggression and Violent Behaviour* 18 (1): 159–174.
- Loeb, A., J. Deardorff, and M. Lahiff. 2014. "High Expectations Across Multiple Domains, Peer Norms, and Physical Dating Violence Among California Adolescents." *Journal of Interpersonal Violence* 29 (11): 2035–2053.
- McCauley, H. L., D. J. Tancredi, J. G. Silverman, M. R. Decker, S. B. Austin, M. C. McCormick, and E. Miller. 2013. "Gender-equitable Attitudes, Bystander Behavior, and Recent Abuse Perpetration Against Heterosexual Dating Partners of Male High School Athletes." *American Journal of Public Health* 103 (10): 1882–1887.
- Miller, S., J. Williams, S. Cutbush, D. Gibbs, M. Clinton-Sherrod, and S. Jones. 2013. "Dating Violence, Bullying, and Sexual Harassment: Longitudinal Profiles and Transitions Over Time." *Journal of Youth and Adolescence* 42 (4): 607–618.
- Molidor, C., and R. M. Tolman. 1998. "Gender and Contextual Factors in Adolescent Dating Violence." *Violence Against Women* 4 (2): 180–194.
- Olweus, D. 1978. *Aggression in the Schools: Bullies and Whipping Boys*. Washington: Hemisphere.
- Olweus, D. 1993. *Bullying at School: What We Know and What We Can Do*. Cambridge, MA: Blackwell Publishers.
- Park, S., and S. H. Kim. 2018. "The Power of Family and Community Factors in Predicting Dating Violence: A Meta-Analysis." *Aggression and Violent Behavior* 40: 19–28.
- Pease, B., and M. Flood. 2008. "Rethinking the Significance of Attitudes in Preventing Men's Violence Against Women." *Australian Journal of Social Issues* 43 (4): 547–561.
- Perry, D. G., L. C. Perry, and E. Kennedy. 1992. "Conflict and the Development of Antisocial Behaviour." In *Conflict in Child and Adolescent Development*, edited by C. U. Shantz and W. W. Hartup, 301–329. Cambridge University Press.

- Radford, L., S. Corral, C. Bradley, H. Fisher, C. Bassett, N. Howat, and S. Collishaw. 2011. *Child Abuse and Neglect in the UK Today*. London: NSPCC. <https://www.nspcc.org.uk/globalassets/documents/research-reports/child-abuse-neglect-uk-today-research-report.pdf>.
- Radford, L., H. Richardson-Foster, P. Hargreaves, and J. Devaney. 2019. *Research Review: Early Childhood and the Intergenerational Cycle of Domestic Violence*. London: NSPCC.
- Rapoza, K., and A. Baker. 2008. "Attachment Styles, Alcohol, and Childhood Experiences of Abuse: an Analysis of Physical Violence in Dating Couples." *Violence and Victims* 23 (1): 52–65.
- Renold, E., and J. Ringrose. 2008. "Regulation and Rupture: Mapping Tween and Teenage Girls' Resistance to the Heterosexual Matrix." *Feminist Theory* 9 (3): 313–338.
- Reyes, H. L. M., V. A. Foshee, P. H. Niolon, D. E. Reidy, and J. E. Hall. 2016. "Gender Role Attitudes and Male Adolescent Dating Violence Perpetration: Normative Beliefs as Moderators." *Journal of Youth and Adolescence* 45 (2): 350–360.
- Shetgiri, R. 2013. "Bullying and Victimization among Children." *Advances in Pediatrics* 60 (1): 33–51.
- Stanley, N., C. Barter, M. Wood, N. Aghtaie, C. Larkins, A. Lanau, and C. Overlien. 2016. "Pornography, Sexual Coercion and Abuse and Sexting in Young People's Intimate Relationships: A European Study." *Journal of Interpersonal Violence* 33 (19): 2919–2944.
- Stonard, K. E. 2016. "The Role of Technology in Adolescent Dating Violence and Abuse." *Unpublished PhD thesis*, Coventry University.
- Stonard, K., E. Bowen, T. Lawrence, and S. A. Price. 2014. "The Relevance of Technology to the Nature, Prevalence and Impact of Adolescent Dating Violence and Abuse: A Research Synthesis." *Aggression and Violent Behavior* 19 (4): 390–417.
- Sugarman, D. B., and G. T. Hotaling. 1997. "Intimate Violence and Social Desirability: A Meta-Analytic Review." *Journal of Interpersonal Violence* 12 (2): 275–290.
- Temple, J. R., R. C. Shorey, S. R. Tortolero, D. A. Wolfe, and G. L. Stuart. 2013. "Importance of Gender and Attitudes About Violence in the Relationship Between Exposure to Interparental Violence and the Perpetration of Teen Dating Violence." *Child Abuse and Neglect* 37 (5): 343–352.
- Tolman, D. L., B. R. Davis, and C. P. Bowman. 2016. "'That's Just How It Is': A Gendered Analysis of Masculinity and Femininity Ideologies in Adolescent Girls' and Boys' Heterosexual Relationships." *Journal of Adolescent Research* 31 (1): 3–31.
- Wincentak, K., J. Connolly, and N. Card. 2017. "Teen Dating Violence: A Meta-Analytic Review of Prevalence Rates." *Psychology of Violence* 7: 224–241.
- Wolfe, D. A., C. Wekerle, K. Scott, A. L. Straatman, and C. Grasley. 2004. "Predicting Abuse in Adolescent Dating Relationships Over 1 Year: The Role of Child Maltreatment and Trauma." *Journal of Abnormal Psychology* 113 (3): 406–415.
- Wolke, D., S. Woods, L. Bloomfield, and L. Karstadt. 2000. "The Association Between Direct and Relational Bullying and Behaviour Problems among Primary School Children." *Journal of Child Psychology and Psychiatry* 41 (8): 989–1002.
- Wood, M., Barter, N. Stanley, C. Överlien et al. 2015. "Images Across Europe: The Sending and Receiving of Sexual Images (Sexting) and Associations with Intimate Partner Violence in Young People's Relationships." *Youth Services Review* 59: 149–160.
- Yakubovich, A. R., J. Heron, G. Feder, A. Fraser, and D. K. Humphreys. 2019. "Intimate Partner Violence Victimization in Early Adulthood: Psychometric Properties of a New Measure and Gender Differences in the Avon Longitudinal Study of Parents and Children." *British Medical Journal Open* 9 (3).