

Original Research




Risk factors for dating violence among undergraduates in selected state universities in the Western Province, Sri Lanka

Hasarali Fernando^{1*}, Aindralal Balasuriya², Pushpa Jayawardana³

¹National Cancer Control Programme, Public Health Complex, Sri Lanka; ²Department of Public Health and Family Medicine, Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka;

³Department of Public Health, Faculty of Medicine, University of Kelaniya, Sri Lanka

*Correspondence: hasaralifernando@gmail.com

 <https://orcid.org/0000-0002-1398-3005>

DOI: <https://doi.org/10.4038/jccpsl.v29i1.8565>

Received on 7 Nov 2022

Accepted on 2 Mar 2023

Abstract

Introduction: Dating violence (DV) is an important public health concern globally, although it has been given a low level of recognition in Sri Lanka.

Objectives: To determine risk factors for DV among undergraduates in selected universities in Western Province, Sri Lanka

Methods: A case control study (Phase II) was conducted as part of a large study (Phase I). Cases and controls were those with and without DV among those who reported heterosexual relationships for a duration of six months or more before the survey. Computed sample size was 200 in each group. Cases and controls were randomly selected from Phase I. Data were collected using a validated, anonymous, self-administered questionnaire. Adjusted odds ratios (AOR) were determined using multiple logistic regression.

Results: Risk factors identified were female sex (AOR=2.6; 95% CI: 1.1, 6.1; p=0.03), father's low educational level (AOR=3.1; 95% CI: 1.2, 7.6; p=0.02), presence of community violence (AOR=8.5; 95% CI: 3.2, 22.2; p<0.01), watching pornography (AOR=19.8; 95% CI: 7.7, 50.8; p<0.01) and sexual abuse in childhood (AOR=22; 95% CI: 3.1, 154.8; p<0.01). Spending time with friends (AOR=0.1; 95% CI: 0.04, 0.3; p<0.01) was a protective factor. Presence of family conflicts (p=0.4), monthly income below Rs. 25000/= (p=0.4), non-engagement in extracurricular activities (p=0.4) and substance abuse of the respondents (p=0.8) were not significantly associated with dating violence.

Conclusions & Recommendations: Sex, paternal education, community violence, pornography and childhood sexual abuse were the risk factors identified of DV. It is recommended to help undergraduates to handle exposure to factors in the surrounding environment which promotes development of violent ideas.

Keywords: risk factors, dating violence, undergraduates, protective factors

Introduction

Dating violence (DV) has been defined as “controlling, abusive and aggressive behaviour in a romantic relationship” (1). Sugarman and Hotaling (2) has described DV as “perpetration/threat of an act of violence by at least one member of an unmarried couple on the other member within the context of dating/courtship”. Dating violence/intimate partner violence (IPV)/domestic violence are all used synonymously in literature. Dating violence is an important global concern of public health and an important issue of human rights (3). A study in USA has found DV to be three times more prevalent than violence among married couples (4), reflecting the magnitude of the problem.

The National Youth Survey in the USA has found low socio-economic status, low academic achievements in parents, age of the partner, number of partners, exposure to violence in childhood, ineffective parenting and heavy substance abuse of males to be associated positively with violence (5). In another study done in the USA, exposure to peer violence, patriarchal gender ideas, traditional beliefs about gender roles and stereotypes, anti-social behaviour, mental health problems and low educational and communication skills were found to be influencing DV (6). The Centre for Disease Control (7) also illustrates similar risk factors for perpetration of DV with a few additional factors like failure to control anger, having friends who perpetrate DV, witnessing family and community violence, and normalizing the use of DV. Rostad *et al.* (8) has found in a study done among grade 10 high school students in USA that exposure to violent pornography, increases sexual violence perpetration, victimization and physical victimization in boys by 2-3 times while in girl’s perpetration of threatening teen DV is increased by 1.5 times. Among adolescents, females perpetrate more IPV than males (9). Further, female perpetrators are found to be victimized severely/frequently (10). According to the Youth’s

Romantic Relationships Project findings, sexual abuse in childhood has contributed to all forms of DV victimization among boys and girls (11).

There is a considerable overlap between risk factors for perpetration (committing violent acts) and victimization (the process of being victimized). It is of importance to know the difference between these two acts to develop risk assessment instruments and risk-focused interventions. However, factors (individual, family and community levels) co-exist at both levels and therefore it is very difficult to demarcate those specifically associated with perpetration and victimization (12).

Though regarded as having public health relevance in the world, it is not so in the Sri Lankan context. Only one study has been published which was conducted among unmarried female undergraduates in a leading university in the Western Province, regarding the awareness on DV and not on DV related to their own experiences (13). The University Grants Commission of Sri Lanka has initiated strategies to mitigate sexual- and gender-based violence taking place in the universities after identifying the impact of the same (14). Paucity of research evidence on risk factors for DV in the country limits the possibility of developing preventive interventions at an earlier stage of a relationship. If neglected, this will be part and parcel of a married couple’s life and by that stage, not only the victims (either partner), but the children too will be subjected to physical and emotional violence, leading to violent and delinquent behaviours (15). Being aware of risk factors will enable the university authorities to improve their strategies to control the issue in addition to conducting awareness programs towards improving healthy dating relationships. Therefore, this study was conducted to determine risk factors for DV among undergraduates in selected state universities in Western Province.

Methods

This was a large-scale research study which was conducted in three phases (16). The first phase was conducted as a retrospective longitudinal study to determine the magnitude and types of DV among 1296 undergraduates in selected state universities in the Western Province. Phase II consisted of a case control study to determine the risk factors for DV. It was conducted in three selected state universities in the Western Province among second year undergraduates of both sexes with heterosexual relationships for a duration of six months or more by the time of the survey.

Those who reported DV within six months prior to the date of the survey (reference period) in Phase I were selected as cases (irrespective of perpetrator/victim status as sometimes the same person could be a perpetrator or a victim depending on the situation) while those who have not experienced any type of DV within this period were selected as controls. The sample size was calculated using the formula (17) for case control studies with an α value of 0.05, power of 80% and 1:1 ratio of cases to controls. The risk factor considered was exposure to sexual abuse in childhood. The computed sample size was 200 for each group, and the study units were selected from among 1013 cases and 283 controls applying simple random sampling, using two sets of computer-generated random numbers.

Pre-tested self-administered questionnaires (SAQ) in Sinhala, Tamil and English languages were used for data collection as they are the commonly used languages in Sri Lanka. This was administered along with the tool developed using Revised Conflict Tactics Scale and the screening questionnaire during Phase I. The Revised Conflict Tactics Scale contains 39 items and was purchased with permission to use. This is a widely used tool developed in 1972 to assess incidence/ prevalence of perpetration and victimization of violence in married, dating and

cohabiting couples (18-19). This measures physical, sexual and psychological attacks on each other and the use of negotiation to deal with conflicts and injuries. The SAQ had 45 close and three open-ended questions including individual, family, friendship, dating relationship, community and societal factors.

Both content and consensual validity of the questionnaire was assessed using classic Delphi Technique. The internal consistency had a Cronbach's alpha value of 0.79 which is recommended as adequate for the tools used in basic research (20).

All variables handled were categorical variables. Risk factors were analysed using bivariate followed by multivariate analysis in order to control for confounding factors.

Multivariate analysis

Multivariate analysis was carried out using logistic regression to identify significant factors associated with DV. Forward selection method was used. All significant factors identified in the bivariate analysis, factors with a p value less than 0.25 and those which were considered as plausible were included in the multivariable analysis. Multicollinearity of independent variables was assessed using Variance Inflation Factor (VIF) which measure the correlation and the strength of correlation between the predictor variables in a regression model (21). No multicollinearity was detected among independent variables as VIF was between 1 and 1.1 (21). Results were expressed as adjusted odds ratios (AOR) with 95% confidence interval (CI).

Results

As the response rate was 100% at the time of recruitment for Phase I of the study at which point all three study instruments were administered, non-

response was not an issue.

Cases and controls were both within 21-28-year age range with a mean age of 22.1 years (SD=0.3) for cases and 22 years (SD=0.2) for controls. A majority of cases (n=193; 96.5%) and controls (n=195; 97.5%) were in the 21–24-year age group. A significantly ($p=0.01$) higher number of females (68.5%) to males (31.5%) were present among cases in comparison to controls (females 56% vs males 44%). Both cases (95.5%) and controls (98%) were predominantly Sinhala.

Risk factors associated with DV

Of the demographic and socio-economic factors (Table 1), female sex (OR=1.7; 95% CI: 1.1, 2.6) and mothers having an educational level below General Certificate of Examination Ordinary Level (GCE O/L) (OR=12.1; 95% CI: 7.5, 19.4) increased the risk for DV significantly. Of the peer and relationship factors (Table 1), partners having conflicts with friends (OR=2.8; 95% CI: 1.3, 6.1) increased the risk for DV while parental unawareness about the relationship (OR=0.1; 95% CI: 0.08, 0.2) and the subjects spending time with friends (OR=0.1; 95% CI: 0.05, 0.2) decreased the risk for DV. Of the community, social and miscellaneous factors (Table 2), presence of community violence (OR=17.2; 95% CI: 8.8, 33.5), watching pornography (OR=7.8; 95% CI: 5.0, 12.1), and exposure to physical abuse (OR=3.4; 95% CI: 1.1, 10.6) and sexual abuse (OR=3.2; 95% CI: 1.1, 8.9) in childhood and non-engagement in extracurricular activities (OR 1.7; 95% CI: 1.1, 2.6) increased the risk for DV significantly. Watching violent films (OR=0.4; 95% CI: 0.2, 0.6) decreased the risk for DV. Out of the 15 factors included in the analysis, only female sex, father's educational level equal to or below GCE O/L, subject spending time with friends, presence of community violence, watching pornography and sexual abuse in childhood became significant risk factors associated with DV (Table 3).

Discussion

Female sex, father's educational level equal to or below GCE O/L, presence of community violence, watching pornography and sexual abuse in childhood were significantly associated with the risk for DV, whereas spending time with friends was a significantly associated protective factor.

Among adolescents female IPV perpetration has become common with the most prevalent being emotional violence followed by physical and sexual violence (9). However, the development trajectory of this was not clearly determined. The finding of low educational level of father is consistent with another study that reports low parental education as a risk factor (22). Although mothers' low educational level became significant following bivariate analysis, it was not so following multivariate analysis. Patriarchal beliefs are rampant in the society and low level of education is likely to strengthen those ideas, where especially resorting to violence related to women is considered the best way of resolving conflicts. It is pitiable to note that some women themselves believe that male partners have the right to punish them without resolving disputes amicably. This type of attitude is likely to influence violent behaviour among children too. Solution to overcome the impact of this is to educate the undergraduates of the importance of conflict resolution, as violence can only make matters worse.

Peer beliefs and attitudes are a major deciding factor in dating practices (23-24). Close friendships were identified as means of adolescent DV prevention (25). In par with these, spending time with friends has become a protective factor in the study. Community violence has been reported as a risk factor by Rothman *et al.* (26) confirming to the result of this study. In the presence of violence in the immediate neighbourhood, an individual is likely to constantly be exposed to it, which in turn makes him/her to believe that violence is the only

solution to settling conflicts which will become normalized. Watching pornography is associated with increased odds of DV which is confirmed in literature where pornography was found to be a significant correlate of all types of teen DV perpetration and victimization, especially among adolescent boys (8). Sexual abuse in childhood was reported as a strong, significant predictor for all types of DV (11) while in this study also it had an AOR of 22 confirming the above fact.

The two tools were developed in English and translated to both Sinhala and Tamil languages as having the tools in all three languages is considered a strength of the study. However, Tamil version was not used as they preferred the English version which also made data entering easier. Self-administered questionnaires were used since DV is a very sensitive topic involving a substantial amount of stigma to both sexes. Most of the research studies done on relationship violence were based on self-reporting. Increased level of social desirability makes people to have a strong desire to be seen positively by others in the society. This can ultimately lead to underreporting of values when self-reporting (24). However, in addition to self-reporting, the questionnaire used in this study was an anonymous one where social desirability bias is substantially less than that would result from using an interviewer administered questionnaire.

Questionnaires were developed in multiple stages with great caution including a substantial number of technical inputs in order to cover all the objectives. Before drafting the questionnaires, three focused group discussions were carried out to have an idea about the undergraduates' views about participating in such a study with the extent of their expectations from the study. It was also possible to learn the culture specific terminology used, regarding dating relationships and the different reasons for initiating such a relationship. Inclusion of their suggestions in the development of the questionnaires improved the content validity of the study.

This was a traditional type of case control study conducted retrospectively, where both cases and controls were sampled simultaneously at the end of the study period. The impact of selection bias which affects internal validity is likely to be minimal due to lack of volunteerism and surveillance issues and having recruited the controls from those at risk of DV. Thus, cases and controls selected may be considered as representative of the reference population, which in turn is considered as a strength of the study. However, a sensitivity analysis should have been performed to assess whether the consistency of the results obtained varied depending on the sample drawn; hence the interpretation of findings. This is considered a limitation of the study.

Controls were those who have relationships, without violence in the previous six months. Even though they may not have experienced violence in their dating relationships during the last six months, they may have had violence beforehand in this relationship or in a previous relationship that was not included in this study. This fact could have affected the study, making cases and controls similar thereby strengthening of the associations. It is a limitation of the study.

A form of information bias that could occur is respondent bias where they could provide exaggerated or understated responses had they being aware of the risk factors that are related to DV. This was considered unlikely. Effects due to confounding was taken control of by applying multiple logistic regression. Multicollinearity is also excluded. Thus, it may be deduced that the case control study had minimal biases (selection, information, and confounding), which confirms its internal validity. This is a strength of this study.

Conclusions & Recommendations

In conclusion, female sex, father's educational level equal to or below GCE O/L, presence of community violence, watching pornography and childhood

sexual abuse became significant risk factors associated with DV while spending time with friends, became a protective factor against DV. These factors are associated with ideas of violence developed through exposure to factors in the

surrounding environment. It is recommended to help undergraduates to handle exposure to factors in the surrounding environment which promotes development of violent ideas.

Table 1: Demographic, family, peer and relationship factors associated with DV in the bivariate analysis

Risk factor		Adjusted OR	95% CI	p value
Demographic factors:				
Sex	Male	0.6	0.4 - 0.9	0.01
	Female	1.0		
Age group	21 – 24	0.7	0.2 - 2.3	0.6
	25 – 28	1.0		
Ethnicity	Sinhala	0.4	0.1 - 1.4	0.2
	Other	1.0		
Family factors:				
Mother’s level of education	< G.C.E. O/L	12.1	7.5 - 19.4	<0.01
	> G.C.E. O/L			
Father’s level of education	< G.C.E. O/L	1.4	0.9 - 2.2	0.2
	>G.C.E. O/L	1.0		
Monthly income	< 25000	0.8	0.5 - 1.2	0.2
	> 25000	1.0		
Living with whom	Parents	1.1	0.7 - 1.8	0.7
	Others	1.0		
Having family conflicts	Yes	1.4	0.9 - 2.2	0.2
	No	1.0		
Father consuming alcohol	Yes	1.0	0.7 - 1.6	0.8
	No	1.0		
Peer and relationship factors:				
Spending time with friends	Yes	0.1	0.05 - 0.2	<0.01
	No	1.0		
Partner having conflicts with friends	Yes	2.8	1.3 - 6.1	<0.01
	No	1.0		
Parental awareness about relationship	No	0.1	0.08 - 0.2	<0.01
	Yes	1.0		

Table 2: Community, social and miscellaneous factors associated with DV in the bivariate analysis

Risk factor		Adjusted OR	95% CI	p value
Community factors:				
Presence of community violence	Yes	17.2	8.8 - 33.5	<0.01
	No	1.0		
Social factors:				
Watch pornography	Yes	7.8	5.0 - 12.1	<0.01
	No	1.0		

Watching violent films	Yes	0.4	0.2 - 0.6	<0.01
	No	1.0		
Miscellaneous factors:				
Experienced physical abuse in childhood	Yes	3.4	1.1 - 10.6	0.03
	No	1.0		
Experienced sexual abuse in childhood	Yes	3.2	1.1 - 8.9	0.02
	No	1.0		
Experienced verbal aggression in childhood	Yes	0.4	0.1 - 1.4	0.1
	No	1.0		
Non-engagement in extra-curricular activities	Yes	1.7	1.1 - 2.6	0.03
	No	1.0		

Table 3: Significant factors associated with DV following multivariable analysis

Risk factor		Adjusted OR	95% CI	p value
Sex	Female	2.6	1.1 - 6.1	0.03
	Male	1.0		
Fathers' educational level	≤ GCE O/L	3.1	1.2 - 7.6	0.02
	≥ GCE A/L	1.0		
Spend time with friends	Yes	0.1	0.04 - 0.3	<0.01
	No	1.0		
Presence of community violence	Yes	8.5	3.2 - 22.2	<0.01
	No	1.0		
Watching pornography	Yes	19.8	7.7 - 50.8	<0.01
	No	1.0		
Sexual abuse in childhood	Yes	22.0	3.1 - 154.8	<0.01
	No	1.0		

*Partner's age group ($p=0.5$), mother's educational level ($p=0.3$), family conflicts ($p=0.4$), monthly income ($p=0.7$), extracurricular activities ($p=0.2$), violence on partners ($p=0.8$), violence on friends ($p=0.5$), substance abuse ($p=0.8$) and first affair ($p=0.8$) were not significant

Public Health Implications

- Parents' level of education, female sex, presence of community violence, watching pornography and sexual abuse in childhood predispose to DV.
- Peer relationships have a better role in preventing DV.
- Developing violent ideas with the exposure to surrounding factors needs to be managed

Author Declarations

Competing interests: Authors declare that there is no conflict of interest.

Ethics approval and consent to participate: Ethical clearance for the study was taken from the Ethics Review Committee at the Faculty of Medicine, University of Colombo before the initiation of the study (EC-15-162). Informed, written consent was taken from the participants and participation was voluntary.

Funding: This research was supported by the National Research Council, Colombo, Sri Lanka under the grant number - NRC 16-024. No involvement in study design, data collection, analysis, interpretation of data, writing the report and decision to submit for publication.

Acknowledgements: None

Author contributions: EHKF: Developing the study proper, data collection, analysis and preparation of the manuscript. PJ & AB: Designing the study, revising and planning data analysis, reviewing and correcting the manuscript.

References

- National Centre for Victims of Crime. *Bulletins for Teens: Dating Violence*. Available from: <https://victimsofcrime.org/bulletins-for-teens-dating-violence>.
- Sugarman D, Hotaling G. *Dating Violence: Prevalence, Context, And Risk Markers*. Westport, USA: Praeger Publishers, 1989. Available from: https://www.researchgate.net/profile/David-Sugarman/publication/232463596_Dating_Violence_Prevalence_Context_and_Risk_Markers/links/00b495369127c31a2e000000/Dating-Violence-Prevalence-Context-and-Risk-Markers.pdf.
- Perlson S, Greene M. *Addressing the Intergenerational Transmission of Gender-Based Violence: Focus on Educational Settings*. USA: CARE, 2014. Available from: <https://dokument.pub/report-care-flipbook-pdf.html>.
- O'Leary K, Malone J, Tyree, A. Physical aggression in early marriage: Pre relationship and relationship effects. *J Consult Clin Psychol* 1994; 62(3): 594-602. <https://doi.org/10.1037/0022-006x.62.3.594>.
- Halpern C, Oslak S, Young M, Martin S, Kupper L. Partner violence among adolescents in opposite sex romantic relationships: findings from the national longitudinal study of adolescent health. *Am J Public Health* 2001; 91(10): 1679-1685. <https://doi.org/10.2105/ajph.91.10.1679>.
- Offenhauer P, Buchalter A. *Teen Dating Violence: A Literature Review and Annotated Bibliography*. Washington, D.C., 2011. Available from: <https://www.ojp.gov/pdffiles1/nij/grants/235368.pdf>.
- CDC. 2016. *Understanding Teen Dating Violence: Fact Sheet*. Centre for Disease prevention and Control. Available from: <https://stacks.cdc.gov/view/cdc/38280>.
- Rostad W, Gittins-Stone D, Huntington C, Rizzo C, Pearlman D, Orchowski L. The Association Between Exposure to Violent Pornography and Teen Dating Violence in Grade 10 High School Students. *Arch Sex Behav* 2019; 48(7): 2137-2147. <https://doi.org/10.1007/s10508-019-1435-4>.
- Hickman L, Joycox L, Arnoff J. Dating violence among adolescents: Prevalence, gender distribution, and prevention program effectiveness. *Trauma Violence Abuse* 2004; 5(2): 123-142. <https://doi.org/10.1177/1524838003262332>.
- Bennett L, Fineran S. Sexual and severe physical violence among high school students: Power beliefs, gender, and relationship. *Am J Orthopsychiatry* 1998; 68(4): 645-652. <https://doi.org/10.1037/h0080373>.
- Hebert M, Moreau C, Blais M, Lavoie F, Guerrier, M. Child sexual abuse as a risk factor for teen dating violence: Findings from a representative sample of Quebec youth. *J Child & Adolesc Trauma* 2016; 10(1): 51-61. <https://doi.org/10.1007/s40653-016-0119-7>.
- Bandyopadhyay A, Deokar A, Omar H. *Dating Violence in Adolescence*. Paediatric Faculty Publications, 2014. Available from: https://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1142&context=pediatrics_facpub.
- Gunawardena N, Weerasinghe M, Rajapaksa L, Wijesekera P, Chaturanga P. Romance, sex and coercion: insights into undergraduate relationships. *SL J Psychiatry* 2011; 2(2): 54-59. <https://doi.org/10.4038/sljpsyc.v2i2.4042>.
- University Grants Commission. *Preventing Sexual and Gender Based Violence: Strategies for Universities*. Care International, Sri Lanka, 2015. Available from: <https://www.uge.ac.lk/downloads/publications/SGVB.pdf>.
- Roman N & Frantz J. The prevalence of Intimate Partner Violence in the family: A systematic review of the implications for adolescents in Africa. *Fam Pract* 2013; 30: 256-265. <https://doi.org/10.1093/fampra/cms084>.
- Fernando E & Balasuriya A. An educational intervention to improve knowledge and attitudes to develop healthy dating relationships among undergraduates in Western Province. *JCCPSL* 2022; 28(2): 563-572. <http://doi.org/10.4038/jccpsl.v28i2.8521>.
- Schlesselman JJ, Schneiderman MA. Case Control Studies: Design, Conduct, Analysis. *J Occup Med* 1982; 24(11): 879.
- Straus MA, Hamby SL, Boney-McCoy S, Sugarman DB. The Revised Conflict Tactics Scales (CTS2): development and preliminary psychometric data. *J Fam. Issues* 1996; 17(3): 283-316. <https://doi.org/10.1177/019251396017003001>.

19. Straus MA. *Conflicts Tactics Scale*. New Hampshire: Durham, 2007.
20. Nunnally J & Nunnally J. *Psychometric theory*. USA: McGraw-Hill, 1978.
21. Zach V. 2022. *How to Test for Multicollinearity in SPSS - Statology*. Available from: <https://www.statology.org/multicollinearity-spss/>.
22. Lehrer A, Lehrer V, Lehrer E, Zhao Z. *Physical dating violence among college students in Chile*. 2007. IZA Discussion Paper No. 2753, Available from: SSRN: <https://ssrn.com/abstract=982623> or <http://dx.doi.org/10.2139/ssrn.982623>.
23. McElhaney K, Antonishak J, Allen J. They like me, they like me not: Popularity and adolescents' perceptions of acceptance predicting social functioning over time. *Child Dev* 2008; 79(3): 720-731. <https://doi.org/10.1111/j.1467-8624.2008.01153.x>.
24. Parker JG, Rubin KH, Price JM, DeRosier ME. *Peer relationships, child development, and adjustment: a developmental psychopathology perspective*. Developmental psychopathology. New York: Wiley, 1995. Available from: <https://doi.org/10.1002/9780470939383.ch12>.
25. Mumford E, Taylor B, Giordano P. Perpetration of adolescent dating relationship abuse: the role of conditional tolerance for violence and friendship factors. *J Interper Violence* 2020; 35(5-6): 1206-1228. <https://doi.org/10.1177/0886260517693002>.
26. Rothman E, Johnson R, Azrael D, Hall D, Weinberg J. Perpetration of physical assault against dating partners, peers, and siblings among a locally representative sample of high school students in Boston, Massachusetts. *Arch Pediatr Adolesc Med* 2010; 164(12): 1118-1124. <https://doi.org/10.1001/archpediatrics.2010.229>.