

Original Research



Prevalence of intimate partner violence across urban, rural and estate sectors: a preliminary study

Haizana Parween Reyal^{1*}, Manuja Niranshi Perera², Duminda Guruge¹

¹ Department of Health Promotion, Faculty of Applied Sciences, Rajarata University of Sri Lanka, Sri Lanka; ² Department of Public Health, Faculty of Medicine, University of Kelaniya, Sri Lanka

*Correspondence: parweenreyal@as.rjt.ac.lk

 <https://orcid.org/0000-0003-1074-5308>

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Abstract

Introduction: Intimate partner violence (IPV) against women continues to be a silent health problem in Sri Lanka. Studies on IPV across different socio-demographic divisions are limited, thus uniform approaches are used to address IPV despite the varying prevalence across different study settings.

Objectives: To compare the prevalence of IPV across the urban, rural and estate sectors through a study conducted in Nawalapitiya Medical Officer of Health (MOH) Area

Methods: A cross-sectional survey was designed to conduct with 701 ever-married women aged 15-49 years using a multistage cluster sampling method. A pre-tested interviewer-administered-questionnaire was used to assess the abuse experienced by the participants during lifetime and past twelve months in the form of physical, psychological, sexual acts and controlling behaviours. Bivariate analysis was performed to compare the prevalence of IPV among the three sectors.

Results: The response rate was 85.6% (n=600). Lifetime prevalence of physical (n=237; 39.5%), psychological abuse (n=234; 39.0%) and controlling behaviours (n=188; 31.3%) were high among ever-partnered women. Estate women reported more abuse (n=143; 79.4%), physical (n=110; 61.1%), psychological (n=99; 55%), sexual abuse (n=29; 16.1%) and controlling behaviours (n=62; 34.4%) compared to urban and rural women.

Conclusions & Recommendations: IPV prevalence significantly differed across sectors. IPV was highest in the estate sector followed by urban and rural sectors. Designing of IPV intervention should focus on different sectors. The contributory factors within the sectors should be explored and addressed.

Keywords: *physical abuse, psychological abuse, sexual abuse, women, Sri Lanka*

Introduction

Women comprise 51.6% (n=10,502,805) of Sri Lankan population (1). Their literacy rate (94.6%) and life expectancy (79 years) are high compared to men (73 years) (1-2). Probably Sri Lankan women are experiencing good health and other privileges compared to women in other South Asian countries (3). Yet, studies report negative consequences on the wellbeing of Sri Lankan women by issues pertaining to intimate partner violence (IPV) (4-5). The reported lifetime prevalence of IPV in Sri Lanka varies between 18.3-72%, whereas the more recent study findings fluctuate between 25% and 35% (3-4, 6-8). Among the few studies conducted focusing urban, rural and estate sectors in Sri Lanka, a recent study indicated that both ever abused (n=393; 50.8%) and currently abused (n=200; 25.8%) were significantly higher among the women living in the tea plantation sector (5). Another study conducted in Western Province of Sri Lanka comprising a diverse representation of women from different sectors revealed a high lifetime prevalence of physical violence (n=251; 34%). However, up to date there are no studies that present a clear comparison of IPV between all three sectors of Sri Lanka.

Globally 30% of ever-married women have experienced physical and/or sexual violence by their partner during the lifetime (9). Yet, the prevalence of IPV has varied between 10% to 69% among different countries (10). The highest lifetime prevalence of IPV is reported from the World Health Organization (WHO) South-East Asia Region (37.7%) followed by Eastern Mediterranean (37%) and Africa (36.6%) (11). According to the Global Burden of Disease regions, South East Asia region reported a prevalence of 27.9% (11).

IPV creates a phenomenal impact on individuals and society. It is the most frequent type of violence within the families and the most common form of violence against women (10-12). Though IPV perpetrated by both men and women, IPV against women is much common with increased burden on women (12-17). It results in health problems of physical, sexual, psychological and behavioural outcomes through direct and indirect pathways among women (10, 18-

19). In addition, children who witness IPV have high risk of developing psychological and behavioural problems with short and long term consequences (10). IPV also impact on economy by loss of productivity and health care costs (10).

Sri Lankan population comprise three different sectors, namely; urban, rural and estate. The urban sector constitutes areas administered by the municipal and urban councils (population of 18.2%, n=3,705,418) (1). The estate sector comprises all plantations with a land area extent of 20 or more acres and with ten or more resident labourers (population of 4.4%, n=895,816). The areas that do not belong to the urban or estate sector comprise the rural sector (population of 77.4%, n=15,758,206) (1). Division of these three sectors is an important feature of the local administrative system and socio-demography. They provide a base for economical division leading to differences in socioeconomic features such as education attainment, types of employment and income (1). Comparison of IPV between and within different settings have identified varying IPV prevalence in Sri Lanka (5-6, 8). However, consensus is lacking on IPV prevalence across the three sectors (20). Hence, the objective of the study is to compare prevalence of IPV across urban, rural and estate sectors.

Methods

A cross-sectional survey was conducted in Nawalapitiya MOH Area located in the Central Province of Sri Lanka. Consisting of a population of 59,917, this MOH area comprises a satisfactory representation of Sinhalese Buddhist and other ethnic communities (1). The study setting consists of a representative population of Sri Lankan women in urban (n=23,874; 33.9%), rural (n=26,983; 38.3%) and estate sectors (n=19,652; 27.9%). The study population consisted of ever-married women aged 15-49 years living in Nawalapitiya MOH Area. Women with diagnosed mental illnesses and cognitive impairments were excluded using the information available with the PHM. The estimated prevalence for the sample size calculation was 30% according to a recent review conducted in Sri Lanka (8). The

calculated design effect was 1.95 considering a cluster size of 20 and intra-cluster correlation coefficient of 0.05 as per similar studies on IPV (21). The 'weighing centre' in a village/street categorized according to the eligible couple registry was considered as a 'cluster'. Using a standard formula for cluster sampling the calculated sample size was 630 (22). The sample size was further increased by 10% (n=693) to account for non-response and rounded up to 700.

A multi-stage cluster sampling method (random and systematic sampling) was used to recruit women matching the inclusion criteria. The primary sampling units were the ten public health midwife (PHM) areas selected by simple random sampling using computer generated random numbers without considering the sector of the PHM area. During the second stage, 35 villages were selected and the number of clusters from a PHM area was calculated using probability proportionate to size comprising 14 urban clusters, 11 rural clusters and 10 estate clusters. In the final stage, twenty participants from the eligible couple registry of the selected cluster fulfilling the eligibility criteria were randomly selected using lottery method.

The study utilized an interviewer administered questionnaire on knowledge, attitudes, practices, determinants, and prevalence of IPV which was partially adapted from a questionnaire used for a multi-country study on women's health and domestic violence against women conducted by the WHO (23). The questionnaire has been validated to measure violence in different settings and it has been used in Sri Lanka (24). The questionnaire was modified according to the comments by a panel of experts, field officers and community members and translated into two main local languages (i.e., Sinhala and Tamil). It was pretested in another MOH area within the same province. However, modifications were not applicable to the prevalence section of the questionnaire which consisted of six main components, namely socio-demographic information, physical abuse, psychological abuse, sexual abuse, controlling behaviours and impact of physical abuse. The study aimed on assessing all four forms of IPV as physical, psychological, sexual

abuse and controlling behaviours. Four female research assistants were trained for data collection. Training components included introduction on IPV, ethics and practice on field data collection, study protocols and practical sessions in conducting questionnaires. During the survey the research team could provide readily available information on accessing services for any help seekers on IPV.

Data analysis

All analyses were performed in Statistical Package for Social Sciences (SPSS) version 20. Firstly, sectors were compared to identify the differences in socio-demographic variables. The abuse experienced by the participants (lifetime and past 12 months prevalence) were categorized in to physical, psychological, sexual acts and controlling behaviours and these were defined in the questionnaire as follows: physical violence was identified in the forms of slapping, pushing, shoving, hitting, kicking choking, burning, and the use, or threat to use, a weapon (gun, knife or object); psychological abuse was identified in the forms of being threatened, being insulted, being belittled or humiliated and being scared or intimidated; sexual abuse was identified in terms of forceful sexual intercourse, engage in sexual activities because of fear and degrading or humiliating sexual behaviour; generally controlling behaviour was identified with a range of behaviours that reflects a control by the partner. If a participant has experienced any of these abusive act/s, she was recognized as an abused woman despite the type of act, frequency of act or the severity of the impact. Significance level was set at <0.05.

Informed written consent was obtained from the respondents before administering the questionnaire by explaining the purpose and the relevance of the study. Privacy and confidentiality of the respondent was secured by an anonymous collection of data and limited handling of collected information. Data collection was done separately with individuals in public settings such as weighing centers after verifying about safety. When respondents could not be accessed in such settings they were approached at private settings or convenient locations suggested by

the respondents. A dummy questionnaire on the title 'health and family wellbeing' was provided to all research assistants to change the topic of the conversation if someone disrupted the interview in a threatening manner.

Results

The socio-demographic characteristics of participants of urban, rural and estate sectors is illustrated in Table 1. Cross-tabulation of bivariate analysis revealed that respondents from urban, rural and estate sectors significantly differed in all socio-demographic characteristics except marital status. The study sample varied in age ($p < 0.01$), educational level ($p < 0.01$), employment status ($p < 0.01$) and household income level ($p < 0.01$) (Table 1).

Table 2 depicts the prevalence of abuse experienced by women in urban, rural and estate sectors. Among all participants, the prevalence of any abuse is 59.5% ($n=357$) and past year prevalence is 41.3% ($n=248$). Lifetime prevalence of physical abuse ($n=237$; 39.5%) and psychological abuse ($n=234$; 39.0%) were high in the study population. Highest prevalence for the past 12 months was recorded for psychological abuse ($n=158$; 26.3%) followed by physical abuse ($n=89$; 14.8%).

In the estate sector, lifetime and past year prevalence of abuse is considerably high compared to urban and rural sectors which reported similar prevalence rates. In fact, 79.4% ($n=143$), estate women have experienced any type of abuse during lifetime. They reported the highest level of physical abuse ($n=110$; 61.1%), psychological abuse ($n=99$; 55%), sexual abuse ($n=29$; 16.1%) and controlling behaviours ($n=62$; 34.4%) among all three sectors. Among the women who were physically abused, 23.2% ($n=55$) reported physical injuries. Among the injured, 45.5% ($n=25$) have experienced injuries during the past year. Injuries were highest in the estate sector ($n=15$; 55.6%) and lowest in the rural sector ($n=4$; 44.4%). Lifetime prevalence of any abuse ($p < 0.01$), physical abuse ($p < 0.01$), psychological abuse ($p < 0.01$) and sexual abuse ($p = 0.01$) significantly varied between the sectors.

Discussion

This study compares prevalence of IPV across urban, rural and estate sectors and among all women approximately three out of five married women have experienced IPV during their lifetime. It is higher compared to other recent studies which indicates two out of five married women (3, 25). This may be due to the heterogeneous representation comprising three sectors and many ethnic groups in the present study as well as due to the different tools used in different studies.

During lifetime and past year, estate women suffered more violence in all forms compared to urban and rural women. Urban women experienced more physical abuse and controlling behaviour while rural women experienced more psychological and sexual abuse. Some studies have identified that IPV is higher in the urban sector compared to the rural sector where some have indicated similar prevalence in both sectors (6). The present study also reports a comparatively low prevalence in the rural sector. The identified IPV prevalence of physical abuse in the estate sector ($n=110$; 61.1%) is comparatively higher and approximately double than the reported national prevalence between 25-35% (3,7). However, the physical violence reported by urban ($n=78$; 32.5%) and rural ($n=49$; 27.2%) sectors are approximately aligned to the reported national prevalence and the prevalence identified in Western Province of Sri Lanka ($n=251$; 34%) (3, 8).

In this study, lifetime physical and psychological abuse was similarly high. Yet, the past year prevalence of psychological abuse was high compared to the physical abuse. This was common in all three sectors. The lifetime prevalence of psychological abuse was 39% ($n=234$) considerably high compared to a study conducted in the capital province ($n=140$; 19.3%) of Sri Lanka (3). However, psychological abuse has received less attention in Sri Lanka (6).

Foreign studies have estimated a prevalence of 16.9% of women being sexually abused in intimate relationships (14). As the least form of IPV reported, sexual abuse range between 5-18% in Sri Lanka (8). Similarly, this study identified a sexual violence

Table 1: Socio-demographic characteristics of participants of urban, rural and estate sectors

Characteristics	No. (%)				p value
	Urban (n=240)	Rural (n=180)	Estate (n=180)	Total (N=600)	
Age category					<0.01*
15 - 19	2 (0.8)	3 (1.7)	4 (2.2)	9 (1.5)	
20 - 29	76 (31.7)	51 (28.3)	84 (46.7)	211 (35.2)	
30 - 39	117 (48.8)	85 (47.2)	77 (42.8)	279 (46.5)	
40 - 49	45 (18.8)	41 (22.8)	15 (8.3)	101 (16.8)	
Marital status					0.22*
Married	232 (96.7)	176 (97.8)	172 (95.6)	580 (96.7)	
Divorced/Separated	5 (2.1)	1 (0.6)	7 (3.9)	13 (2.2)	
Cohabit	0 (0.0)	1 (0.6)	0 (0.0)	1 (0.2)	
Widowed	3 (1.2)	2 (1.1)	1 (0.6)	6 (1.0)	
Educational level					<0.01
No education	10 (4.2)	0 (0.0)	11 (6.1)	21 (3.5)	
Primary and junior secondary	96 (40.0)	73 (40.6)	116 (64.4)	285 (47.5)	
Senior secondary education	44 (18.3)	45 (25)	36 (20)	125 (20.8)	
Post-secondary	76 (31.7)	58 (32.2)	16 (8.9)	150 (25.0)	
Tertiary and above	14 (5.8)	4 (2.2)	1 (0.6)	19 (3.2)	
Employment status					<0.01
Unemployed	201 (83.8)	131 (72.8)	117 (65.0)	449 (74.8)	
Employed/Self employed	39 (16.2)	49 (27.2)	63 (35.0)	151 (25.2)	
Household income level					<0.01
< Rs. 20,000	37 (15.4)	25 (13.9)	58 (32.2)	120 (20.0)	
Rs.20,001 – 34,999	59 (24.6)	56 (31.1)	54 (30.0)	169 (28.2)	
Rs.35,000 – 49,999	44 (18.3)	37 (20.6)	30 (16.7)	111 (18.5)	
Rs.50,000 – 74,999	64 (26.7)	39 (21.7)	12 (6.7)	115 (19.2)	
Rs.75,000 ≤	23 (9.6)	11 (6.1)	5 (2.8)	39 (6.5)	
Don't know, Refused / No answer	13 (5.4)	12 (6.7)	21 (11.7)	46 (7.7)	

* Fisher's Exact test

Table 2: Prevalence of abuse experienced by women in urban, rural and estate sectors

Violence experienced	No. (%)				p value
	Urban (n=240)	Rural (n=180)	Estate (n=180)	Total (N=600)	
Any type of abuse					
Lifetime prevalence of any abuse					<0.01*
Never experienced	121 (50.4)	85 (47.2)	37 (20.6)	243 (40.5)	
Experienced at least once	119 (49.6)	95 (52.8)	143 (79.4)	357 (59.5)	
Prevalence of any abuse[#]					0.49
Prior to last 12 months	28 (11.7)	22 (12.2)	29 (16.1)	79 (13.2)	
During last 12 months	78 (32.5)	60 (33.3)	110 (61.1)	248 (41.3)	
Physical abuse					
Lifetime prevalence of physical abuse					<0.01*
Never experienced	162 (67.5)	131 (72.8)	70 (38.9)	363 (60.5)	
Experienced at least once	78 (32.5)	49 (27.2)	110 (61.1)	237 (39.5)	
Prevalence of physical abuse					0.05
Prior to last 12 months	52 (21.7)	36 (20.0)	60 (33.3)	148 (24.7)	
During last 12 months	26 (10.8)	13 (7.2)	50 (27.8)	89 (14.8)	
Psychological abuse					
Lifetime prevalence of psychological abuse					<0.01*
Never experienced	164 (68.3)	121 (67.2)	81 (45.0)	366 (61.0)	
Experienced at least once	76 (31.7)	59 (32.8)	99 (55.0)	234 (39.0)	
Prevalence of psychological abuse					0.29
Prior to last 12 months	29 (12.1)	20 (11.1)	27 (15.0)	76 (12.6)	
During last 12 months	47 (19.6)	39 (21.7)	72 (40.0)	158 (26.3)	
Sexual abuse					
Lifetime prevalence of sexual abuse					0.01
Never experienced	222 (92.5)	153 (85.0)	151 (83.9)	526 (87.7)	
Experienced at least once	18 (7.5)	27 (15.0)	29 (16.1)	74 (12.3)	
Prevalence of sexual abuse					0.05
Prior to last 12 months	12 (5.0)	10 (5.6)	9 (5.0)	31 (5.2)	
During last 12 months	6 (2.5)	17 (9.4)	20 (11.1)	43 (7.2)	
Generally controlling behaviours**					
Not controlled by the partner	164(68.3)	130 (72.2)	118 (65.6)	412 (68.7)	0.39
Controlled by the partner	76 (31.7)	50 (27.8)	62 (34.4)	188 (31.3)	
Injuries due to physical abuse[†]					
Yes	19 (24.4)	9 (18.4)	27 (24.5)	55 (23.2)	0.66
No	59 (75.6)	40 (81.6)	83 (75.5)	182 (76.8)	
Prevalence of injuries					
Prior to last 12 months	13 (68.4)	5 (55.6)	12 (44.4)	30 (54.5)	0.26
During last 12 months	6 (31.6)	4 (44.4)	15 (55.6)	25 (45.5)	

[#]Only physical, psychological and sexual abuse are considered to assess the prevalence of any abuse.

**Without considering the time of experience the general behaviour is concerned

[†]Considered only the respondents injured due to physical abuse

prevalence between 7.5-16.1%. The risk of sexual abuse may not be statistically significant due to the low number of events reported. Controlling behaviour reported by this study (n=188; 31.3%) is similarly reported by another study (n=218; 30.1%) (3). A total of 55 women reporting injuries due to physical violence, indicates approximately one out of ten women has a risk of being injured due to IPV.

This study also coincides with the previous studies indicating the high prevalence of IPV in the estate sector (6). The most economically active females of Sri Lanka (n=392,320; 44.3%) living in the estate sector, suffer with the comparatively highest level of difficulty in the personal relationships (1). The difficulty to access service providers combined with social and geographic isolation may be the reasons for this high rate (20). The amplified prevalence in the estate sector requires service provisions and recognizing the stakeholders in IPV prevention (6, 20).

There were three limitations identified in this study. One limitation is the social desirability bias. Intimate relationship as a private matter, certain respondents would have a tendency to over report or underreport the aspects. The second limitation is the recall bias. Both limitations may have underestimated the prevalence rates of IPV. However, there are no reasons to believe that those limitations occurred differently across sectors, thus the effect would have been minimal. The third limitation is only considering ever-married women, which will not reflect the experiences of never married but cohabiting partners. In Sri Lanka, marriage rate is considerably higher compared to cohabiting partners, thus the effect would have been insignificant.

Conclusions and Recommendations

The study describes the sectoral variation of IPV prevalence. IPV experiences were higher in the estate sector compared to the overall average reported by the present study and the reported national average. The estate women experiencing comparatively more IPV than urban and rural women, creates a significant

difference across the three sectors. The necessity of interventions based on the sector is emphasized. The contributory factors within the sectors should be

Public Health Implications

- *Addressing IPV as an important public health issue* – The high prevalence reported suggests that IPV should be considered an important health problem in Sri Lanka. Community level interventions targeted at general public are required in all three sectors with service provision to the victims.
- *Sectoral approaches to address IPV* - It is required to consider the social contexts of different sectors in designing interventions. Special attention should be paid to the estate sector in IPV prevention.
- *Addressing different types of IPV* - During interventions, the psychological abuse should receive similar attention given to physical abuse.

Author Declaration

Competing interests: The authors declares that they have no competing interests.

Ethics approval and consent to participates: Ethical approval for the study obtained from the Ethics Review Committee of the Faculty of Applied Sciences, Rajarata University of Sri Lanka (Reference number – ERC/007/16).

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Author contributions: HPR participated in designing the research, data collection, analysis, interpretation and drafting the manuscript. GNDG supervised the study and participated in designing the research and interpreting the findings. KMNP supervised the study, participated in designing the research, data analysis, interpretation and revising the manuscript.

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