Domestic violence against women workers in selected tea estates of South India

Ashwini Giduganahalli Srinivasappa, Arut Chezian, Maridas Tom Thomas, Praneet Raj Pathivada, Naveen Ramesh, Pretesh Rohan Kiran, Bobby Joseph

Department of Community Health, St. Johns Medical College, Bengaluru, Karnataka, India

Correspondence to: Naveen Ramesh, E-mail: drnaveenr@gmail.com

ABSTRACT

Background: Violence against women is an important public health problem, due to its consequences on women health. There is a considerable variation in the prevalence of domestic violence across the states and different settings in India. **Objectives:** The objectives of the study were to estimate the prevalence of different forms of domestic violence and determine the associated factors among women working in tea estates. **Materials and Methods:** A cross-sectional study was conducted in two tea estates in Tamil Nadu. All (266) ever-married women workers aged 15–49 years were included in the study. Data were collected using a pre-designed interview schedule including sociodemography and physical, psychological, and sexual domains of domestic violence. It was developed using the National Family Health Survey 3 interview schedule and the World Health Organization multi-country study on women's health and life experiences questionnaire version 10. **Results:** The prevalence of domestic violence was 65%, while specifically psychological, physical, and sexual violence were 63.5%, 44.1%, and 4.1%, respectively. Domestic violence was significantly associated with socioeconomic status, spousal literacy status, age at marriage, and alcohol use ($P < 0.05$). Any form of violence and psychological violence were twice as common with illiterate (unadjusted odds ratio [OR]: 2.6; 95% confidence interval [CI]: 1.4–4.9) (unadjusted OR: 2.4; 95% CI: 1.1–4.9) and a spouse who consumed alcohol (unadjusted OR: 2.7; 95% CI: 1.6–4.6) (unadjusted OR: 2.5; 95% CI: 1.5–4.2), respectively. **Conclusion:** The prevalence of all forms of domestic violence was high among women in the selected two tea estates in South India. Significant association was found with spousal characteristics. This calls for stringent enforcement of laws and educating men toward changing the social attitude toward violence against women.

KEY WORDS: Domestic Violence; Tea Plantation; Women Workers; South India

INTRODUCTION

Domestic violence is a global phenomenon existing in all countries irrespective of social, economic, cultural, or religious group.[1] Violence against women is a complex social problem with far-reaching health consequences, so it needs to be addressed urgently.[2] Studies have shown that women exposed to any form of violence reported poor health status and violence is known to have negative impact on women's physical, mental, and reproductive health.[3-5]

According to the World Health Organization (WHO) multi-country study on women's health and domestic violence against women, the prevalence of physical or sexual violence or both ranged from 15% to 71%.[6] It is a serious issue in developing countries and has been an intrinsic part of our society. According to the National Family Health Survey (NFHS) 4 report of 2015–2016, 33% of ever-married women

have experienced physical, sexual, or emotional spousal violence. The most common type of spousal violence is physical violence (30%) followed by emotional violence (14%). About 7% of ever-married women had experienced spousal sexual violence. There is considerable variation between the states – the percentage of women who had experienced physical or sexual violence ranged from 5% in Sikkim to 44–46% in Andhra Pradesh, Telangana, Tamil Nadu, and Manipur.[7]

The prevalence of domestic violence varies across different regions and different ethnic groups in India.[8-11] Extensive review of literature revealed that there are no studies published in India which focus on this issue in the tea plantation setting, which are essentially closed communities with minimal social interactions with communities outside a given estate. Hence, the current study was undertaken to estimate the prevalence of different forms of domestic violence against women working in selected tea estates of South India. The results of which will help in a better understanding of this social problem and thereby aid in devising better ways of addressing the same.

Objectives

The objectives of the study were as follows:
1. To estimate the prevalence of different forms of domestic violence against women workers in selected tea estates of South India
2. To determine the factors associated with the domestic violence against women workers in selected tea estates of South India.

MATERIALS AND METHODS

This cross-sectional study was conducted in selected two tea estates located in Tamil Nadu, South India. All ever-married permanent women workers of the two tea estates between the age groups of 15 and 49 years were included in the study. The study protocol was approved by the Institutional Ethics Committee, permission was obtained from the companies owning tea plantations and informed consent was obtained from the study participants.

The survey team consisting of health-care professionals was briefed and trained to administer the semi-structured, pre-designed interview schedule in the local language. After obtaining informed consent from the participants, the interview schedule was administered. Participants were assured of the confidentiality of their responses. Data collected from the study subjects included their sociodemographic profile and other associated factors such as age at marriage, duration of marriage, family size, type of the family, total number of children, and number of male and female children. Information on spousal characteristics such as education,

age at marriage, and habits such as tobacco and alcohol consumption was also collected. The interview schedule included questions on different forms of domestic violence such as physical, psychological, and sexual violence. This was developed utilizing the NFHS 3 interview schedule[12] and the WHO multi-country study on women's health and life experiences questionnaire version 10.[13] This was a validated tool and was pretested before administering to the study subjects.

Later, data were entered into Microsoft Excel and analyzed using standard statistical packages for descriptive statistics such as percentages and measures of central tendency. Chi-square test and logistic regression analysis were done to test the statistical association between the variables.

RESULTS

A total of 266 ever-married women workers were interviewed and all of them were involved in plucking of tea leaves. Nearly half (130, 48.9%) of the study population were above 40 years of age and 135 (50.8%) of them were educated up to the 10th standard. Majority 254 (95.5%) were from poor socioeconomic status according to modified BG Prasad's socioeconomic status, 219 (82.3%) of them were Hindus, 262 (98.5%) belonged to nuclear family, and in 154 (57.9%) families the total number of residents at home ranged from 2 to 4. With regard to the duration of marriage, 129 (48.5%) of them were married for more than 21 years, with mean years of marriage being 20.49 years (±7.9 years). Many of the participants 110 (41.4%) got married in the age group of 19–21 years, with a mean of 19.43 years (±3.1 years) and 152 (57.1%) of participants' spouse got married at the age above 24 years, with a mean of 25.29 years (±4.8 years). Almost half of the participants (137, 51.5%) reported alcohol use in their spouse and more than half of these spouses (69, 50.4%) were using it often. Majority of the participants had two children (168, 63.2%). Almost half (126, 47.4%) of them had at least one male child [Table 1].

Prevalence of Domestic Violence

Any form of domestic violence

The overall prevalence of any form of domestic violence among women workers of tea estate was found to be 173 (65%) in their marital lifetime, of which 136 (51.1%) had experienced it in the past year and 136 (51.1%) felt that domestic violence will continue.

Psychological violence

The prevalence of psychological violence among women workers was found to be 169 (63.5%) ever in their marital lifetime, while 136 (51.1%) of them experienced it in the past year, with 134 (50.4%) of the women still continuing

Table 1: Sociodemographic profile

Variables	Number	Percentage
Age (years)		
21–30	25	9.4
31–40	111	41.7
41–49	130	48.9
Education		
Illiterate	86	32.2
<4th standard	10	3.8
5th–7th standard	63	23.7
8th–10th standard	95	35.7
>10th standard	12	4.5
Socioeconomic status		
High	1	0.4
Upper-middle	2	0.7
Lower-middle	9	3.4
Poor	254	95.5
Religion		
Hindu	219	82.3
Muslim	1	0.4
Christian	46	17.3
Type of the family		
Nuclear	262	98.5
Joint	4	1.5
Family size		
≤2	52	19.5
34	154	57.9
≥5	60	22.6
Duration of married life (years)		
≤3	5	1.9
4–10	25	9.4
11–20	107	40.2
≥21	129	48.5
Age at marriage (years)		
≤18	104	39.1
19–21	110	41.4
≥22	52	19.5
Age of spouse at marriage (years)		
≤21	58	21.8
22–23	56	21.1
≥24	152	57.1
Spouse's education		
Illiterate	52	19.5
<4th standard	8	3
5th–7th standard	35	13.2
8th–10th standard	135	50.8
>10th standard	36	13.5

(*Contd...*)

Table 1:(*Continued*)

Variables	Number	Percentage
Spouse's alcohol use		
Often	69	25.9
Sometimes	68	25.6
Not at all	129	48.5
Total number of children		
0	6	2.3
1	19	7.1
2	168	63.2
≥3	73	27.4
Number of male children		
0	54	20.3
1	126	47.4
2	74	27.8
≥3	12	4.5
Number of female children		
0	69	25.9
1	125	47
2	64	24.1
≥3	8	3

to experience it. With regard to different behaviors under psychological violence, the most common form was insult using abusive language experienced by 169 (63.5%) in their marital lifetime, 136 (51.1%) experienced in the previous year, and 133 (50%) workers still continue to be insulted. Following verbal abuse was being threatened physically using objects which were experienced by 123 (46.2%) of workers ever in their marital life and 65 (24.4%) of the workers experienced it in the past year and 65 (24.4%) still continue to experience it. While describing the different behaviors under psychological violence, it was found that none of the women were forced to get money/gifts from their parent's home.

Physical violence

The prevalence of physical violence was found to be 117 (44%) among women workers in their marital lifetime, while 38 (14.3%) of them experienced it in the past year and 37 (13.9%) still continue to experience. Slapping was the most common form of physical violence experienced by 72 (27.1%) of workers in their marital lifetime, while 26 (9.8%) of the workers experienced it in the previous year and 26 (9.8%) of the workers were still continued to be abused. Being kicked or beaten by the family members was the next most common physical violence experienced by 54 (20.3%) of the workers ever in their marital life, while 19 (7.1%) experienced it in the past 1 year and 19 (7.1%) of them still continue being kicked or beaten. The third most common form of physical

violence was being pushed or having objects thrown at them being experienced by 19 (8.3%) of workers in lifetime.

Sexual violence

The prevalence of sexual violence among women workers of tea estates was found to be 11 (4.1%) ever in their marital lifetime. Forced sex was the form of sexual violence experienced by the workers. None of them continued to experience any form of sexual violence. While describing the different behaviors under sexual violence, none of them reported denial of sex or was hurt/injured around their private parts any time in life by their partners.

Table 2 further illustrates the prevalence of different forms of domestic violence.

Prevalence of Domestic Violence among the Subgroups of Study Population

The distribution of different forms of domestic violence ever in lifetime with different variables of the study population is shown in Tables 3 and 4. However, none of these distributions were found to be statistically significant.

Any form of domestic violence

The prevalence of any form of domestic violence among women workers of tea estate was found to be higher in younger age group workers 19 (76%), educated above 10th standard

10 (83.3%), and women belonging to higher socioeconomic Class 1 (100%). The prevalence was also higher in women belonging to joint family 3 (75%) and in families with five or more members 41 (68.3%). The prevalence was higher among women who were married for <3 years 4 (80%) and those who got married before the age of 18 years 70 (67.3%). With regard to spousal characteristics, it was found that the prevalence of domestic violence was higher among women whose spouse got married below the age of 21 years 44 (75.9%), had studied up to or lesser than 4th standard 6 (75%) or who has the habit of consuming alcohol quite often 53 (76.8%). The prevalence was also found to be higher among women having three or more number of children 52 (71.2%), three or more number of male children 9 (75%), and three or more number of female children 6 (75%).

Psychological violence

The prevalence of psychological form of domestic violence was proportionately higher among younger age group women workers 19 (76%), better-educated women 10 (83.3%), and those belonging to higher socioeconomic class 1 (100%). The prevalence was higher among women residing in a joint family 3 (75%) with family size of three-four 102 (66.2%). Psychological violence was found to be relatively common among workers who were married recently, <3 years 4 (80%) and those who got married at age of <18 years 69 (66.3%). The prevalence was common in women whose spouse got married at an age <21 years 44 (75.9%), studied up to or

Table 2: Prevalence of different forms of domestic violence

Behaviors	Ever in life time (*n*, %)	In the past 1 year (*n*, %)	Still continuing (*n*, %)
Any form of violence	173 (65)	136 (51.1)	136 (51.1)
Psychological violence	169 (63.5)	136 (51.1)	134 (50.4)
Insult using abusive language	169 (63.5)	136 (51.1)	133 (50)
Threaten with objects such as stick, belt, and knife	123 (46.2)	65 (24.4)	65 (24.4)
Threaten to send to parent's house/divorce	3 (1.1)	0	0
Sent to parent's house	2 (0.8)	0	0
Created financial hardship	7 (2.6)	0	0
Prohibition from making purchases	3 (1.1)	1 (0.4)	1 (0.4)
Ignored you/showed indifference	4 (1.5)	0	0
Denied of basic personal needs	1 (0.4)	0	0
Suspicious of being unfaithful	11 (4.1)	0	0
Non-involvement in decision-making	2 (0.8)	0	0
Physical violence	117 (44)	38 (14.3)	37 (13.9)
Slap	72 (27.1)	26 (9.8)	26 (9.8)
Twist your arm/pull your hair	14 (5.3)	1 (0.4)	1 (0.4)
Push you, throw things at you	22 (8.3)	5 (1.9)	0
Punch	15 (5.6)	1 (0.4)	1 (0.4)
Kick/drag/beat	54 (20.3)	19 (7.1)	19 (7.1)
Got a cut/bruise?	6 (2.3)	0	0
Sexual violence	11 (4.1)	0	0
Forceful sex	11 (4.1)	0	0

Table 3: Prevalence of different forms of domestic violence by sociodemographic profile

Variables	Any form of violence (*n, %*)	Psychological violence (*n, %*)	Physical violence (*n, %*)	Sexual violence (*n, %*)
Age (years)				
21–30	19 (76)	19 (76)	13 (52)	0
31–40	72 (64.9)	71 (64)	44 (39.6)	3 (2.7)
41–49	82 (63.1)	79 (60.8)	60 (46.2)	8 (6.2)
Education				
Illiterate	51 (59.3)	50 (58.1)	34 (39.5)	6 (7)
<4th standard	6 (60)	6 (60)	3 (30)	0
5th–7th standard	39 (61.9)	39 (61.9)	25 (39.7)	2 (3.2)
8th–10th standard	67 (70.5)	64 (67.4)	49 (51.6)	3 (3.2)
>10th Standard	10 (83.3)	10 (83.3)	6 (50%)	0
Socioeconomic class				
High	1 (100)	1 (100)	1 (100)	0
Upper-middle	0	0	0	0
Lower-middle	3 (33.3)	3 (33.3)	3 (33.3)	0
Poor	169 (66.5)	165 (65)	113 (44.5)	11 (4.3)
Type of the family				
Nuclear	170 (64.9)	166 (63.4)	116 (44.3)	11 (4.2)
Joint	3 (75)	3 (75)	1 (25)	0
Family size				
≤2	29 (55.5)	28 (53.8)	24 (46.2)	3 (5.8)
3–4	103 (66.9)	102 (66.2)	62 (39.6)	6 (3.9)
≥5	41 (68.3)	39 (65)	32 (53.3)	2 (3.3)

Table 4: Prevalence of different forms of domestic violence by other associated factors in the study

Variables	Any form of violence (*n, %*)	Psychological violence (*n, %*)	Physical violence (*n, %*)	Sexual violence (*n, %*)
Duration of married life (years)				
≤3	4 (80)	4 (80)	3 (60)	1 (20)
4–10	19 (76)	19 (76)	11 (44)	0
11–20	73 (68.2)	72 (67.3)	46 (43)	4 (3.7)
≥21	77 (59.7)	74 (57.4)	57 (44.2)	6 (4.7)
Age at marriage (years)				
≤18	70 (67.3)	69 (66.3)	53 (51)	4 (3.8)
19–21	73 (66.4)	71 (64.5)	46 (41.8)	4 (3.6)
≥22	30 (57.7)	29 (55.8)	18 (34.6)	3 (5.8)
Age of spouse at marriage (years)				
≤21	44 (75.9)	44 (75.9)	35 (60.3)	4 (6.9)
22–23	39 (69.6)	37 (66.1)	22 (39.3)	2 (3.6)
≥24	90 (59.2)	88 (57.9)	60 (39.5)	5 (3.3)
Spouse education				
Illiterate	24 (46.2)	24 (46.2)	17 (32.7)	3 (5.8)
<4th	6 (75)	6 (75)	49 (50)	0
5th–7th	24 (68.6)	23 (65.7)	17 (48.6)	2 (5.7)
8th–10th	97 (71.9)	94 (69.6)	60 (44.4)	5 (3.7)
>10th	22 (61.1)	22 (61.1)	19 (52.8)	1 (2.8)

(Contd...)

Table 4: *(Continued)*

Variables	Any form of violence (*n*, %)	Psychological violence (*n*, %)	Physical violence (*n*, %)	Sexual violence (*n*, %)
Spouse alcohol use				
Often	53 (76.8)	51 (73.9)	36 (52.2)	7 (10.1)
Sometimes	51 (75)	50 (73.5)	34 (50)	1 (1.5)
Not at all	69 (53.5)	68 (52.7)	47 (36.4)	3 (2.3)
Total number of children				
0	3 (50)	3 (50)	3 (50)	0
1	12 (63.2)	12 (63.2)	8 (42.1)	1 (5.3)
2	106 (63.1)	103 (61.3)	66 (39.3)	7 (4.2)
≥3	52 (71.2)	51 (69.9)	40 (54.8)	3 (4.1)
Number of male children				
0	35 (63.8)	35 (64.8)	23 (42.6)	2 (3.7)
1	79 (62.7)	77 (61.1)	50 (39.7)	4 (3.2)
2	50 (67.6)	48 (64.9)	35 (47.3)	5 (6.8)
≥3	9 (75)	9 (75)	9 (75)	0
Number of female children				
0	46 (66.7)	44 (63.8)	34 (49.3)	4 (5.8)
1	76 (60.8)	75 (60)	51 (40.8)	3 (2.4)
2	45 (70.3)	44 (68.8)	26 (40.6)	4 (6.2)
≥3	6 (75)	6 (75)	6 (75)	0

lesser than 4th standard 6 (75%), or who consumed alcohol often or occasionally 51 (73.9%). The prevalence was more among women having more number of children 51 (69.9%), more number of male children 9 (75%), and female children 6 (75%).

Physical violence

The prevalence of physical form of violence among women workers in the study was proportionately higher among younger age workers 13 (52%), educated up to the 10th standard 49 (51.6%), and belonging to higher socioeconomic class 1 (100%). The prevalence was common in women belonging to nuclear family 116 (44.3%) with larger family size 32 (53.3%). Physical violence was common among women who got married recently 3 (60%) and at the age of <18 years 53 (51%). While describing spousal characteristics, the prevalence was found to be higher in women whose spouse married at the age of <21 years 35 (60.3%), who had higher education 19 (52.8%), and who consumes alcohol often 19 (52.2%). The prevalence was higher among workers having more number of children 40 (54.8%), either male 9 (75%) or female 6 (75%) children.

Sexual violence

While describing the sexual form of violence among the women workers, it was found that the prevalence was higher among older age group 8 (6.2%) and illiterate women 6 (7%). Sexual violence was reported only in women belonging to poor socioeconomic class 11 (4.3%) and in women residing in nuclear families 11 (4.2%). It was relatively common in women with smaller family size 3 (5.8%). The prevalence was found to be higher in women who were married for<3 years 1 (20%) and who got married at an age above 22 years 3 (5.8%). While describing spouse-related characteristics, it was found that the prevalence was proportionately higher in women whose husband got married at an age <21 years 4 (6.9%), who was illiterate 3 (5.8%), and who consumes alcohol often 7 (10.1%). The prevalence was found to be more in women having one child 1 (5.3%), two male children 5 (6.8%), and two female children 4 (6.2%).

Association of Domestic Violence with Different Variables in the Study

There was a significant association with any form of domestic violence experienced in lifetime with socioeconomic status ($P = 0.02$), spouse's literacy status ($P = 0.001$), and spouse's alcohol use ($P < 0.001$) in the study when analyzed using Chi-square test. By binary logistic regression analysis, it was found that the odds of experiencing any form of domestic violence were 2.6 times more in women whose husbands were illiterates than women whose husbands were literate (95% confidence interval [CI]: 1.4–4.9; $P = 0.002$). Similarly, it was 2.7 times more in women whose husbands consumed alcohol than women whose husbands did not (95% CI: 1.6–4.6; $P < 0.001$). There was a significant association with psychological form of violence with spouse's characteristics such as literacy status ($P = 0.004$), alcohol use ($P < 0.001$), and age at marriage ($P = 0.04$) by

Chi-square test. By binary logistic regression analysis, it was found that the odds of experiencing psychological violence were 2.4 times more in women whose spouse was illiterate than women whose spouse was literate (95% CI: 1.1–4.9; $P = 0.02$). Similarly, it was 2.5 times more in women whose spouse consumed alcohol than among those whose husband did not (95% CI: 1.5–4.2, $P = 0.01$). There was a significant association with the prevalence of physical violence among the women workers and the habit of alcohol use in spouse ($P = 0.01$) and spouse's age at marriage in the study ($P = 0.01$) [Table 5]. There was no significant association between sexual violence and any of the variables in the study.

DISCUSSION

A total of 266 ever-married women workers were interviewed and all of them were involved in plucking of tea leaves. Nearly half (130, 48.9%) of the study population were above 40 years, 262 (98.5%) belonged to nuclear family. The mean years of marriage were 20.49 years (±7.9 years), 110 (41.4%) got married in the age group of 19–21 years.

Almost half of the participants (137, 51.5%) reported alcohol use in their spouse.

The prevalence of any form of domestic violence among women tea pluckers employed in tea estates of Tamil Nadu was found to be 65% in their marital lifetime and among them, 51.1% had experienced it in the past year. The prevalence of different forms of violence in their marital lifetime was as follows: Psychological violence was found to be 63.5%, physical violence was found to be 44%, and sexual violence was found to be 4.1%.

As per a study conducted in Puducherry,[14] the prevalence of domestic violence, psychological violence, physical violence, and sexual violence among women in reproductive age group was found to be 56.7%, 51.3%, 40%, and 13.5%, respectively, which are comparatively lesser than our study findings except for the prevalence of sexual violence. The prevalence rates in our study were much higher than the average rates of the state of Tamil Nadu and India. As per the NFHS 4 report of Tamil Nadu, the prevalence of some form of violence experienced

Table 5: Association of domestic violence with different variables in the study

Any form of violence		Violence	No violence	Total	Chi-square value	P value	Unadjusted oddsratio (95% CI interval)	P value
Socioeconomic status	Poor	169 (66.5)	85 (33.5)	254 (100)	5.55	0.02		
	Other classes	4 (33.3)	8 (66.7)	12 (100)				
Spouse's literacy status	Illiterate	24 (46.2)	28 (53.8)	52 (100)	10.13	0.001	2.6 (1.4–4.9)	0.002
	Literate	149 (69.3)	65 (30.7)	214 (100)				
Spouse's alcohol use	Yes	104 (75.9)	33 (24.1)	137 (100)	14.84	<0.001	2.7 (1.6–4.6)	<0.001
	No	69 (53.5)	60 (46.5)	129 (100)				
Psychological violence								
Spouse's literacy status	Illiterate	24 (46.2)	28 (53.8)	52 (100)	8.42	0.004	2.4 (1.1–4.9)	0.02
	Literate	145 (67.8)	69 (32.2)	214 (100)	12.76	<0.001	2.5 (1.5–4.2)	0.01
Spouse's alcohol use	Yes	101 (73.7)	36 (26.3)	137 (100)				
	No	68 (52.7)	61 (47.3)	129 (100)				
Age of spouse at marriage (years)	≤21	44 (75.9)	14 (24.1)	58 (100)	6.25	0.04		
	22–23	37 (66.1)	19 (33.9)	56 (100)				
	≥24	88 (57.9)	64 (42.1)	152 (100)				
Physical violence								
Spouse's alcohol use	Yes	70 (51.1)	67 (48.9)	137 (100)	5.82	0.01		
	No	47 (36.4)	82 (63.6)	129 (100)				
Age of spouse at marriage (years)	≤21	35 (60.3)	23 (39.7)	58 (100)	8.05	0.01		
	22–23	22 (39.3)	34 (60.7)	56 (100)				
	≥24	60 (39.5)	92 (60.5)	152 (100)				

CI: Confidence interval

by ever-married women was 40.6% and as per the NFHS 3 report, it was 41.9%.[7] According to a systematic review of published studies related to domestic violence over the past one decade,[8] physical abuse was found most frequently followed by psychological abuse and sexual abuse while control or neglect received substantially less attention. This systematic review also reported that the median and range of past-year estimates of multiple forms of domestic violence were 30% (4–56%), psychological abuse were 22% (11–48%), physical abuse were 22% (9–90%), and sexual abuse were 7% (0–50%). However, in our study conducted in the tea estate setting, nearly half of the women had experienced some form of domestic violence and psychological violence in the past year and continued to experience it. Nearly 14% of the women had experienced some form of physical violence in the previous year and continued to experience it. None of them had experienced sexual violence in the past year in our study. NFHS 4 report of India can be compared here, according to which one-third of ever-married women had experienced some form of violence and one-fourth of them had experienced it in the preceding 12 months. Spousal emotional violence was reported by 14% of women and 11% reported such violence in the past 12 months. About 30% of the women had experienced physical violence and nearly one-fourth in the past 12 months. About 7% had experienced sexual violence, with 5% experiencing it in the past 12 months. All these are much lower than our study findings.[7]

The findings related to psychological violence in our study were comparable to a study conducted in three states of eastern India,[15] according to which, the most common form of psychological violence was insult using abusive language and frightening as reported by nearly half of the study subjects and more than 40% continue experiencing it. The most common form of physical violence was being hit/beaten experienced by nearly 15% of the study subjects and nearly 15% continue being hit/beaten. The most common form of sexual violence was coerced sex experienced by nearly one-fourth and majority of them continue to be abused. As per a study was done in rural Andhra Pradesh, it was found that almost half of the women had been slapped, hit, kicked, or beaten by their husbands at some time in life, 8% were threatened with having kerosene oil poured on them to set them on fire.[16]

A study conducted in urban slums of Chennai, found that the prevalence of any form of domestic violence was significantly higher in women from lower socioeconomic class, whose spouses were illiterates and who used alcohol which was similar to our study findings.[17] Alcohol abuse in husbands was also found to be significantly associated with the domestic violence against women in another multicentric study done across India.[18] As per a study conducted in rural Mangalore, Karnataka, there was a significant association between incomes of both the partners with domestic violence, which is similar

to our study.[19] In our study, the prevalence of psychological violence was found to be significantly associated with spouse's literacy status, age at marriage, and alcohol use. It was twice more common in women with an illiterate and a spouse who used alcohol. A study conducted in a resettlement colony of Chandigarh, found that the prevalence of domestic violence was significantly associated with alcohol consumption among men, but it was not associated with literacy status of men.[20] There was no significant association of domestic violence with age at marriage of women and educational status of both the partners in the study done in Mangalore.[19] In our study, the prevalence of physical violence was found to be significantly associated with spouse's age at marriage and alcohol abuse. However, there was no association with the age of marriage of women with the domestic violence in our study, whereas it was found that women marrying after the age of 18 years had a reduced likelihood of experiencing physical domestic violence as per a study conducted among married women across India.[21] In our study, there was no significant association between sexual violence and any of the factors, which was a contrasting finding to the study from Mangalore where women with alcoholic husbands suffered sexual violence.[19]

Strengths

One of the few studies in India was to document domestic violence among women working in tea plantation.

Study data were collected by health professionals and using standard interview schedule.

Limitations

The study was done in two tea plantations located in Tamil Nadu.

CONCLUSION

In our study conducted among women in tea estates, it was found that the prevalence of all forms of domestic violence was high. There was a significant association of domestic violence with socioeconomic status and spouse's age at marriage. It was twice more common in women with spouse who was illiterate and consumed alcohol. Illiterate men especially those who consume alcohol take up odds jobs with lower pay and a large family to take care to pull the family to low socioeconomic status which is boiling pot for domestic violence against women. There is a need for stricter enforcement of laws related to domestic violence, especially on women. There is also a need for educating men toward transforming their social attitudes and beliefs surrounding violence against women. As alcohol use is almost universally implicated as a major factor precipitating violence, there should be easy access to substance abuse control programs.

REFERENCES

1. WHO. Geneva: World Report on Violence and Health. Available from: http://www.who.int/entity/violence_injury_prevention/violence/world_report/en/introduction.pdf. [Last accessed on 2014 Sep 09].
2. Garcia-Moreno C, Heise L, Jansen HA, Ellsberg M, Watts C. Public health. Violence against women. Science 2005;310:1282-3.
3. Campbell J, Jones AS, Dienemann J, Kub J, Schollenberger J, O'Campo P, *et al.* Intimate partner violence and physical health consequences. Arch Intern Med 2002;162:1157-63.
4. Campbell JC. Health consequences of intimate partner violence. Lancet 2002;359:1331-6.
5. Kumar S, Jeyaseelan L, Suresh S, Ahuja RC. Domestic violence and its mental health correlates in Indian women. Br J Psychiatry 2005;187:62-7.
6. Garcia-Moreno C, Jansen HA, Ellsberg M, Heise L, Watts C. WHO Multi-country Study on Women's Health and Domestic Violence against Women. Initial Results on Prevalence, Health Outcomes and Women's Responses. Geneva: World Health Organization; 2005.
7. International Institute for Population Sciences and ICF. National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: International Institute for Population Sciences; 2017.
8. Kalokhe A, Del Rio C, Dunkle K, Stephenson R, Metheny N, Paranjape A, *et al.* Domestic violence against women in India: A systematic review of a decade of quantitative studies. Glob Public Health 2017;12:498-513.
9. Sarkar M. A study on domestic violence against adult and adolescent females in a rural area of West Bengal. Indian J Community Med 2010;35:311-5.
10. Krishnan S. Do structural inequalities contribute to marital violence? Ethnographic evidence from rural South India. Violence Against Women 2005;11:759-75.
11. Koenig MA, Stephenson R, Ahmed S, Jejeebhoy SJ, Campbell J. Individual and contextual determinants of domestic violence in North India. Am J Public Health 2006;96:132-8.
12. International Institute for Population Sciences and Macro International. National Family Health Survey (NFHS-3),
13. 2005-06. Vol. II. Mumbai, India: International Institute for Population Sciences. 2007.
13. Jansen HA, Watts C, Ellsberg M, Heise L, Moreno CG. WHO Multi-country Study on Women's Health and Life Experiences Questionnaire Version 10. Geneva: WHO; 2005.
14. George J, Nair D, Premkumar NR, Saravanan N, Chinnakali P, Roy G, *et al.* The prevalence of domestic violence and its associated factors among married women in a rural area of Puducherry, South India. J Family Med Prim Care 2016;5:672-6.
15. Babu BV, Kar SK. Domestic violence against women in Eastern India: A population-based study on prevalence and related issues. BMC Public Health 2009;9:129.
16. Dash SK. Violence against women: Evidence from rural Andhra Pradesh (Eluru, W.G. Dist), India. J Indian Acad Forensic Med 2006;28:184-6.
17. Solomon S, Subbaraman R, Solomon SS, Srikrishnan AK, Johnson SC, Vasudevan CK, *et al.* Domestic violence and forced sex among the urban poor in South India: Implications for HIV prevention. Violence Against Women 2009;15:753-73.
18. Mahapatro M, Gupta R, Gupta V. The risk factor of domestic violence in India. Indian J Community Med 2012;37:153-7.
19. Nesan SC, Maiya GR, Kundapur R. Domestic violence patterns and its consequences among married women in rural Mangalore. Indian J Community Health 2018;30:170-4.
20. Thakare MM, Bakshi RK, Giri PA, Sharma MK, Goel NK. Prevalence and correlates of domestic violence in a resettlement colony of union territory of Chandigarh, India. Int J Community Med Public Health 2018;5:3079-83.
21. Pallikadavath S, Bradley T. Dowry, dowry autonomy and domestic violence among young married women in India. J Biosoc Sci 2018;30:1-21.