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ORIGINAL ARTICLE

**Prevalence of Domestic Violence and Perceived Stress Among Married Women in an Urban Area of Puducherry: A Cross Sectional Study**

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**Abstract**

**Background:** Domestic violence is one of the major issues faced globally but it is not addressed properly due to a lack of knowledge about domestic violence and its ill effects. Thus this study aimed to determine the prevalence of domestic violence and perceived stress among married women in an urban area of Puducherry. **Methods:** Community based cross sectional study was conducted among 350 married women of age in urban Villianur from March 2021 to March 2022. They were interviewed with a questionnaire containing socio-demographic profile and Perceived Stress scale. **Results:** In this study, the prevalence of domestic violence were 77(22%). Among 350 participants 3.2% had high stress score using Perceived stress scale. There is no significant association with domestic violence and perceived stress. **Conclusion:** Current prevalence of Domestic violence was high which was similar to studies done in Puducherry and moderate level of perceived stress was reported among the participants. Hence emphasis should be made on finding domestic violence victims in primary health care settings which is an iceberg of the society and helping them by counseling and with programmes available in India

**Keywords:** Domestic violence, Perceived Stress, Domestic violence determinants, Help seeking behavior

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### Graphical Abstract

**Prevalence Of Domestic Violence And Perceived Stress Among Married Women In An Urban Area Of Puducherry – a Cross Sectional study**  
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**Background:** Domestic violence is one of the major issues faced globally but it is not addressed properly due to a lack of knowledge about domestic violence and its ill effects. Thus this study aimed to determine the prevalence of domestic violence and perceived stress among married women in an urban area of Puducherry

Domestic violence Types	Perceived Stress		Chi square(*Fischer exact)	p-value
	Low stress	Moderate – High stress		
Physical Violence (PV)	2(20%)	8(80%)	6.637	0.277
Emotional Violence (EV)	2(11.8%)	15(88.2%)		
Controlling Behaviour (CB)	1(9.1%)	10(90.9%)		
PV & EV	0(0%)	6(100%)		
PV & CB	2(66.7%)	1(33.3%)		
EV & CB	2(11.8%)	15(88.2%)		
PV+EV+CB	1(7.7%)	12(92.3%)		

**Methods:** Community based cross sectional study was conducted among 350 married women of age in urban Villianur from March 2021 to March 2022. They were interviewed with a questionnaire containing socio-demographic profile and Perceived Stress scale after getting clearance from Institutional Ethics Committee. Using proportion, frequency and chi square were used for analysis.

**Results: main table**

**Conclusions :** Current prevalence of Domestic violence was high which was similar to studies done in Puducherry and moderate level of perceived stress was reported among the participants. Hence emphasis should be made on finding domestic violence victims in primary health care settings which is an iceberg of the society and helping them by counseling and with programmes available in India

### Introduction

Domestic violence against women is an important social problem found globally as well as in India. Violence is defined as the intentional use of physical force or power, threatened or actual, against another person or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation [1].

Globally about 27% of married women of age 15–49 years are estimated to have experienced physical or sexual, or both forms of intimate partner violence in their lifetime [2].

Perceived stress is the feelings or thoughts that an individual has about how much stress they are under at a given point in time or over a given time period. Perceived stress can badly affect physical and mental health. Perceived stress incorporates feelings about the uncontrollability and unpredictability of

one’s life, how often one has to deal with irritating hassles, how much change is occurring in one’s life and confidence in one’s ability to deal with problems or difficulties [3].

Perceived stress is not measuring the types or frequencies of stressful events which have happened to a person, but rather how an individual feels about the general stressfulness of their life and their ability to handle such stress. Individuals may suffer similar negative life events but appraise the impact or severity of these two different extents as a result of factors such as personality, coping resources, and support. In this way, perceived stress reflects the interaction between an individual and their environment which they appraise as threatening or overwhelming their resources in a way that will affect their wellbeing (Lazarus & Folkman, 1984). Perceived stress is commonly measured as the frequency of such feelings using a questionnaire such as the Perceived Stress

Scale designed by Cohen, Kamarck & Mermelstein in 1983 [4].

Domestic violence is prevalent in all societies among all socio-economic groups, but the highest prevalence is found in the South-East Asia region. Though the problem of domestic violence is more prevalent in India, most of the studies have been done in rural areas to know the magnitude of domestic violence. There were very few studies on help seeking behavior as well as perceived stress. With this background, the study was done on domestic violence in an urban area to find out the magnitude and perceived stress among married women of age 18- 45 years.

### Objectives

Among married women of age 18- 45 years old residing in Urban Health Training Centre, SVMCH&RC, Puducherry.

- To estimate the prevalence of domestic violence
- To assess the relationship between perceived stress and domestic violence.

### Materials and Methods

The present study was conducted after getting clearance from Scientific Research Committee and Institutional Ethics Committee. This study was done as community based cross sectional study to determine the prevalence and determinants of domestic violence and perceived stress among married women in an urban area of Puducherry. The present study was conducted in Field Practice Area of Urban Health Training Centre (UHTC), Department of Community Medicine, in a Medical college in Puducherry over the period of 1 year from March 2021 to February 2022. The Study population was

Married women of age 18 – 45 years residing at urban area of Villianur Commune Panchayat were considered. Married women of reproductive age 18 – 45 years, Participants who are staying with their family for atleast one year of duration and Married women who gave consent for the study were included. Married women who are not available for atleast three consecutive house visits, Women whose privacy could not be obtained, Women who are divorced, widowed, separated were excluded

### Sample size

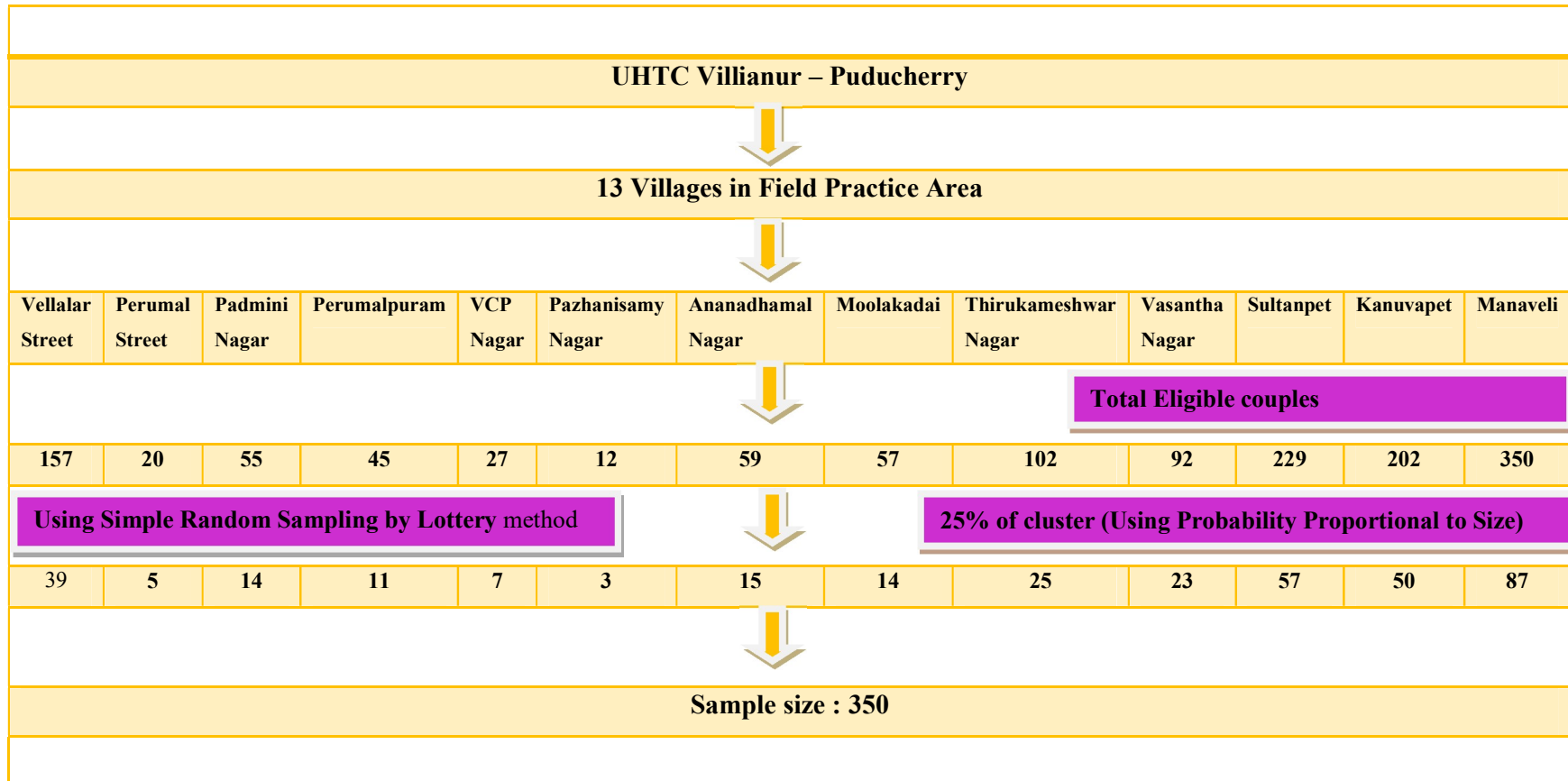
According to Community based cross sectional study by Nadda et al. [4] the prevalence of Domestic violence was 28%, this prevalence was taken into consideration to calculate the sample size. The sample size was determined with the formula  $n = Z^2pq/d^2$  (Where Z = Confidence limit of 95% or 1.96, p = prevalence (p = 28 %), q = 1-p (q = 72), d = Sampling error (d = 5 %) and 10 % non- respondent rate, confidence interval 95% and power 80% )

**Final Sample Size:** 350 (311 + 10% non response rate (~ 344) rounding off to 350)

### Sampling Technique

Study participants were included by Probability Proportional to Size Sampling. The number of eligible participants required from area was calculated using the following formula, Probability of each individual being sampled in each area was calculated using the following formula

$$\text{Sample \%} = \frac{\text{Required number of samples}}{\text{Total number of eligible participants}} \times 100 = \frac{350}{1407} \times 100 = 24.8 = 25\%$$



**Study tools:**

Married women were interviewed using a pretested pre- designed semi structured questionnaire containing socio-demographic profile and validated questionnaire of Perceived Stress scale developed by Cohen, Kamarck and Mermelstein (1983) to assess Perceived stress.

**Part 1: Socio-Demographic Profile**

Information about socio-demographic characteristics like age, sex, marital status, literacy, occupation, monthly income, type of marriage, age at marriage, number of years married and about domestic violence ( physical and emotional domestical violence) were obtained.

**Part 2: Questionnaire related to Perceived Stress Scale**

Cohen, Kamarck and Mermelstein designed Perceived Stress Scale containing validated ten questions with scores ranging from 0 to 40. Scores ranging from 0-13 would be considered low stress, 14-26 would be considered moderate stress, 27-40 would be considered high perceived stress.

**Data collection procedure**

This study was conducted in Villianur, an urban area of Puducherry. All 13 areas under our Urban Health Training Centre were selected and by using Probability Proportional to Size Sampling (PPS) technique, 25 % of married eligible women were included from each ward. Within wards, Simple Random Sampling technique method was applied to select the participants using register which was maintained in Health Centre If more than one eligible participant were present in a house, using lottery method participants were selected for the study. Total 350 Married women were included for the study. House to house survey was conducted to contact the participants. After explaining the purpose of the study to the eligible married women in local language, written consent was obtained from all the study participants. Information regarding domestic violence, and stress was assessed using Perceived Stress scale.

**Data management and analysis**

Data was entered in Microsoft Excel Sheet and analyzed by SPSS version 23. A ‘p’ value of 0.05 or less will be considered for the statistical significance.

Objectives	Statistical Test
To estimate the prevalence of domestic violence among married women of age 18- 49 years.	Proportion
To assess the relationship between perceived stress and domestic violence.	Chi square

### Operational definitions

#### Domestic violence

Protection of Women from Domestic Violence Act (PWDVA) defines domestic violence as “all forms of physical, emotional, verbal, sexual, and economic violence, and covers both actual acts of such violence and threats of violence”.

#### Physical violence

Physical violence includes push you, shake you, or throw something at you; slap you; twist your arm or pull your hair; punch you with his fist or with something that could hurt you; kick you, drag you, or beat you up; try to choke you or burn you on purpose; or threaten or attack you with a knife, gun, or any other weapon.

#### Emotional violence

Emotional violence includes say or do something to humiliate you in front of others; threaten to hurt or harm you or someone close to you; insult you or make you feel bad about yourself.

#### Results

Among the 350 married women, 77 (22%) had experienced domestic violence in the last one month (Figure 1).

Out of 350 participants, 77 had domestic violence. Number of episodes of domestic violence suffered by the victims was 187. Average number of domestic violence episode per woman (187/77) is 2.43 (Table 1).

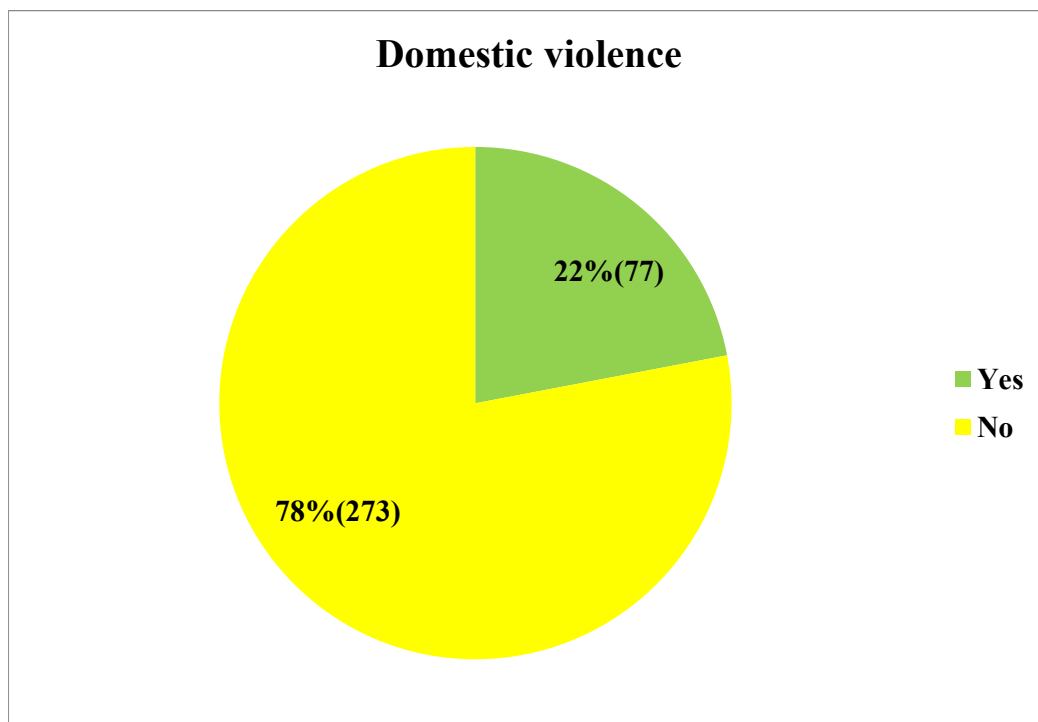


Figure 1. Prevalence of domestic violence among study participants (n=350).

Table 1. Magnitude of Domestic Violence among study participants (n=350)

<b>Domestic violence among women</b>	<b>Frequency (n=350)</b>
Domestic Violence suffered	77
Number of episodes of domestic violence	187
Average number of episodes of domestic violence per woman	2.43

Among study participants who had experienced domestic violence, around 40 (51.9%) women had experienced domestic violence atleast once in last one month, followed by 19 (24.7%) women who had experienced domestic violence twice in last one month and remaining 18 (23.4%) women had experienced domestic violence more than twice in the last one month. (The maximum number of episodes experienced being 16 times in the last one month) (Table 2).

Majority 66 (85.7%) of the victims had experienced domestic violence by their husband followed by 7 (9.1%) by both husband and family members and 4 (5.2%) by family members (Figure 2).

Out of 77 sufferers of domestic violence, 38 (49.3%) sought help from others after the episode of domestic violence and remaining 39 (50.7%) did not seek any help (Figure 3).

Among 38 participants who sought help, the most common person from whom they sought help was family members (Mother, sister and mother in -law) around 31 (81.6%) and from friends and the police

were 6 (15.8%) and 1 (2.6%), respectively (Table 3).

Among 39 participants who didn't seek help for domestic violence, 36 (92.3 %) felt that they can solve it by themselves and remaining 3 (7.7 %) thought parents will get hurt (Table 4).

Among 350 study participants, 11 (3.2 %) had high stress, 286 (81.2 %) had moderate stress and 53 (15.1 %) had low stress in the last one month (Figure 4).

This table shows that there was no significant association between domestic violence episodes with age of married women (p value=0.157) (Table 5).

This table shows that there was no significant association between domestic violence and perceived stress (p value = 0.146) (Table 6).

This table shows that there was no significant association between types of domestic violence and perceived stress (p value = 0.277) (Table 7).

In this study, it was found that there was no significant association found between types of domestic violence and help seeking behavior with p value = 0.493 (Table 8).

Table 2. Distribution of Domestic violence among study participants based on number of episodes (n=77)

No. of episodes of domestic violence	Frequency (n=77)	Percentage (%)
1	40	51.9
2	19	24.7
>3	18	23.4

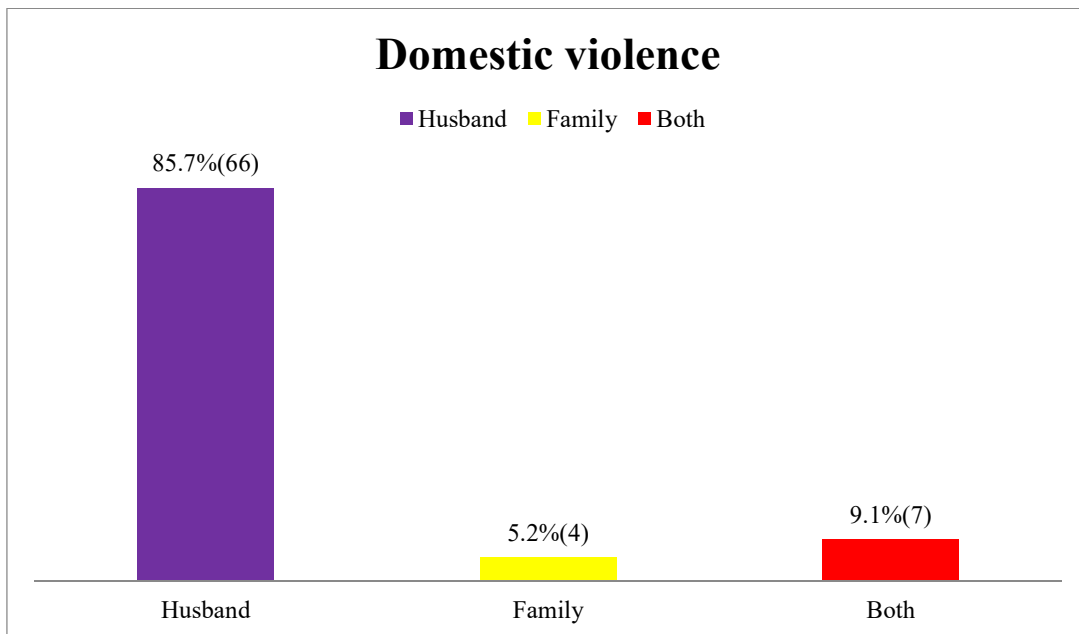


Figure 2. Distribution of victim's domestic circle who committed Domestic violence (n=77)



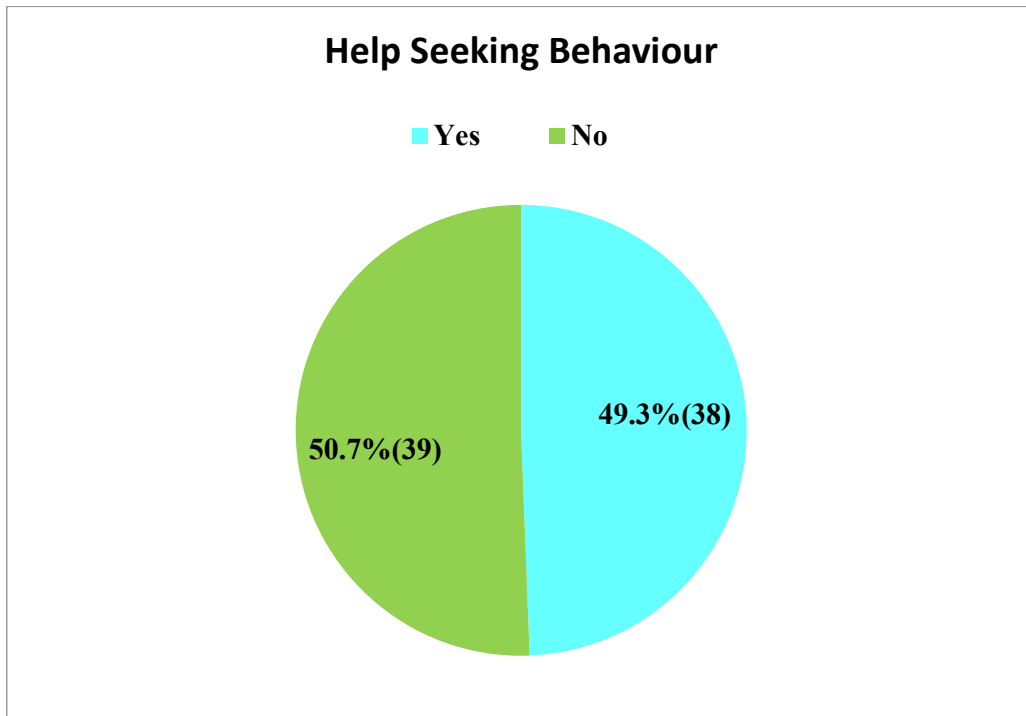


Figure 3. Help seeking behavior of Domestic Violence sufferers (n=77)

Table 3. Help seeking behavior of study participants for domestic violence (n=38)

Help seeking behavior (Sought help from)	Frequency (n=38)	Percentage (%)
Family members	31	81.6
Friends	6	15.8
Police	1	2.6

Table 4. Reason for not seeking help for domestic violence among study participants (n=39)

Reasons for not seeking help	Frequency (n=39)	Percentage (%)
Solve by themselves	36	92.3
Parents will get hurt	3	7.7

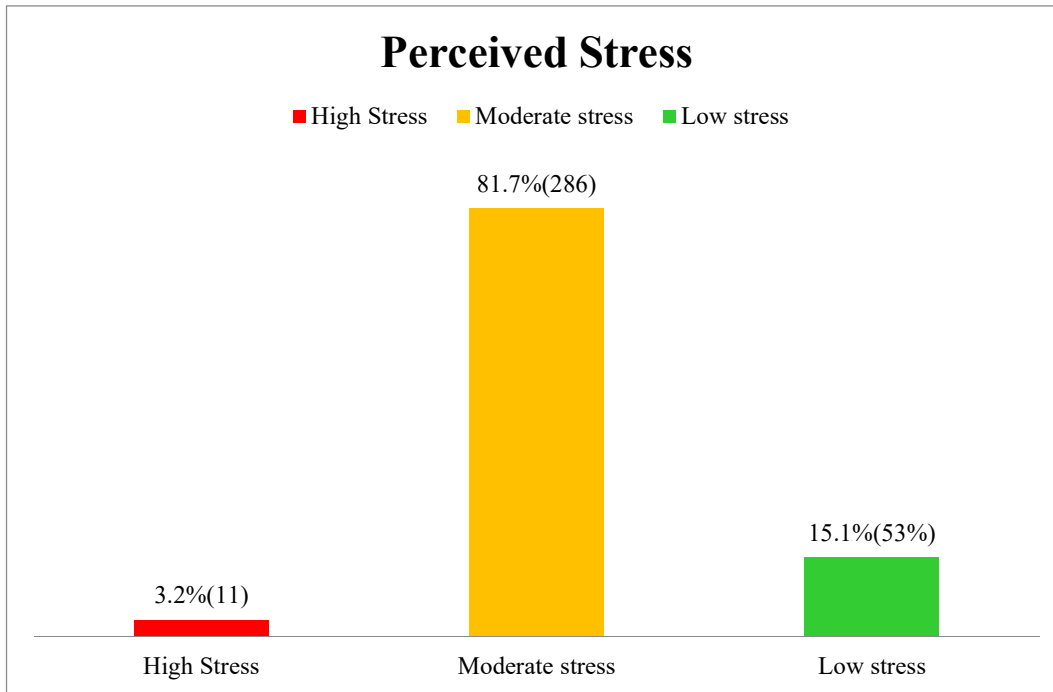


Figure 4. Perception of stress by study participants based on Perceived stress scale (n=350)

Table 5. Association of Domestic violence episodes with age of the married women

Married woman	Age (years)		
	≤35 (n=187)	>35 (n=163)	Total (N=350)
Domestic violence victims	42(54.5%)	35(45.4%)	77(100%)
Total no. of episodes of domestic violence suffered	120(64.2%)	67(35.8%)	187
Average no. of episodes of domestic violence suffered per married woman (victims)	2.86	1.91	2.43
Association of episodes of domestic violence suffered and age of the married women	Unpaired Student's t test =1.431 p value =0.157		

Table 6. Association between Domestic violence and Perceived Stress

Domestic violence	Perceived Stress			Chi square	p-value
	Low stress	Moderate stress	High stress		
Yes	10(13%)	62(80.5%)	5(6.5%)	3.847	0.146
No	43(15.8%)	224(81.7%)	6(3.1%)		

Table 7. Association between Types of Domestic violence and Perceived Stress

Domestic violence Types	Perceived Stress		Chi square (*Fischer exact)	p-value
	Low stress	Moderate – High stress		
Physical Violence (PV)	2(20%)	8(80%)	6.637	0.277
Emotional Violence (EV)	2(11.8%)	15(88.2%)		
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PV+EV+CB	1(7.7%)	12(92.3%)		

Table 8. Association between types of domestic violence and help seeking behavior (n=77)

Domestic violence	Help seeking behavior		Chi square	p-value
	Yes	No		
Physical violence only	2(20%)	8(80%)	5.405	0.493
Emotional violence only	8(47.1%)	9(52.9%)		
Controlling behavior only	7(63.6%)	4(36.4%)		
Both Physical violence and Emotional violence	3(50%)	3(50%)		
Both Physical violence and Controlling behavior	1(33.3%)	2(66.7%)		
Both Emotional violence and Controlling behavior	10(58.8%)	7(41.2%)		
Physical violence, emotional violence and Controlling behavior	7(53.8%)	6(46.2%)		

### Discussion

The prevalence of domestic violence was found to be 22% in our study among married women of age 18 to 45 years in urban area of Puducherry which is similar to the studies done by NFHS-V which showed a prevalence of 29.8% in Puducherry [6], 25.8% in Indu et al. [7] and 26.6% Songul and Selma Tepehan [8]. In contrast, the prevalence of domestic violence was lower in study done by Samal et al. [9] reported 6.5% since it was a hospital based study. The prevalence of domestic violence was higher in studies (National Family Health Survey data) done by Durga B. Avaniigadda et al. [10] which reported that prevalence of domestic violence in India to be 31.6%

In the present study 49.3 % of victims of domestic violence sought help from others after the incident which was similar to the study done by Ghose et al. [11] whereas other studies done by Leonardsson and Sebastian [12] reported 23.7%, Handebo et al. [14] reported 22.5%, Goodson and Hayes [13] reported 34.8% women sought help after the incident respectively which is in lower proportion compared to our study. Among 49.3 % of victims of domestic violence who sought help only 3% sought help from the police in our study which is similar to the study done by Goodson and Hayes [13] and in the study done by Leonardsson and Sebastian [12] showed 1% had sought help from police. In contrast, few studies reported higher proportion of help seeking behavior

from the police like Handebo et al.[14] and Djikanovic [15] which ranged from 8.4-12.2%.

Around 3.2% had high stress whereas the study done by Indu et al. [16] showed 66% of domestic violence victims reported high stress. In our present study there was no statistically significant association between stress and domestic violence since proportion of participants reporting high perceived stress was low compared to other studies done by Indu et al. [16], Kadam et al. [17], Poonam et al. [18] and Piraino et al. [19] which showed that there was a positive relationship between High perceived stress and domestic violence.

### **Conclusions**

The prevalence of domestic violence was 22% among married women. Most common type of domestic violence was combination of emotional and controlling behavior. Around 38 (49.4%) domestic violence victims sought help for the domestic violence. Majority of participants 286 (81.2%) had moderate perceived stress followed by 53 (15.1%) had low perceived stress and 11 (3.2%) had high perceived stress in the last one month. No significant association was observed between Perceived stress and Domestic violence.

To conclude the prevalence of domestic violence was high among the study participants. Hence emphasis should be made for finding domestic violence victims at primary health care settings which is an iceberg of the society and helping them by counseling and with programmes available in India.

### **Strengths and Limitation**

#### **Strengths**

1. To avoid selection bias, Probability Proportional to Size sampling technique was used to include equal proportion of study participants.
2. We used standard questionnaires like NFHS Survey questionnaire to assess domestic violence and questionnaire to assess perceived stress using Perceived stress scale.
3. Finding prevalence, determinants, help seeking behavior and perceived stress of domestic violence among married women were hidden area in Puducherry; only limited similar studies were conducted in Urban Puducherry which adds strength to this study.
4. The chance of inter-observer variability is very minimal, since it was a single investigator study.
5. Women who suffered from domestic violence were referred to Psychiatrist of our Institution.
6. Since UHTC, Villianur, SVMCH & RC is accessible to the study participants, future follow up and intervention can be planned.

#### **Limitation**

1. Domestic violence is a sensitive issue to be reported at the first instance and since this was a cross sectional study design there could be underreporting of domestic violence.
2. The study participant's perception can be better elicited by Qualitative methodology.
3. Due to time constraint, other mental health issues like depression, anxiety were not included.
4. Subjective assessment was carried out to obtain information on

questionnaire which leads to recall bias.

### Recommendations

1. Identification of victims of domestic violence is important to know the magnitude of domestic violence in the community. Domestic violence being a sensitive issue, it is difficult to find victims as they rarely report about the issue. There are more chances that the women open up about the violence to grassroot level workers (ASHA /ANM/Anganwadi) as they are constantly in contact with the women of their areas.
2. Primary health care need to be strengthened by providing counseling services to the victims and spouses with the help of Psychiatrist/ Counselor at the PHC
3. Women should be empowered by means of education which helps them understand about gender equality, self worth, freedom, household decision making. Another way of empowerment is by providing employment to women. Employment gives financial independence and decision making power.

### Statements and Declarations

#### Conflicts of interest

The authors declares that they do not have conflict of interest.

#### Funding

No funding was received for conducting this study.

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