



## RESEARCH ARTICLE

# Domestic violence in women of reproductive age group in rural Odisha- a cross sectional study data results

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## Abstract

**Introduction:** Domestic violence meaning thereby violence rendered on women at home has come out to be a major suppressive factor affecting the mental health of women across the world. It has greater significance in rural areas of few states in India, where it is compounded with low socio-economic conditions as well as low levels of education and alcoholism.

**Methodology:** The current cross sectional study is an excerpt of a larger study conducted under the aegis of Department of Health Research (DHR/ICMR-India), wherein women of reproductive age groups i.e., 18-49 years were selected in three categories i.e., pregnant, lactating and nonpregnant and nonlactating (NPNL) and interviewed for sociodemographic, family and individual factors to eventually score their mental health by using a validated scoring questionnaire i.e., General Health Questionnaire 12 (GHQ12). The study is underway and 5 districts across the state have been covered with a total sample of 900.

**Results:** The prelim results were assessed for prevalence of domestic violence in sample. In all the 3 categories domestic violence was reported in over 10% of the sample, maximum being in the lactating women i.e., 17.9%. It was observed from the results of univariate analysis that the risk of domestic violence among casual employed women is 2.19 (95% CI: 1.12 – 4.29) times higher than the unemployed women. Similarly women belonging to the occasional alcoholic and frequent (twice or thrice a week) alcoholic spouses have 4.17 (95% CI: 2.77 – 6.27) and 6.0 (95% CI: 3.20 – 11.18) times higher risk of domestic violence respectively than those women with non-alcoholic partners. Women education and education of the principal bread earner emerged as protective factors. Multiple logistic regression analysis revealed that alcohol abuse by the spouse and educational status of principal bread earner are the major determinants for domestic violence against women and hence considered as independent factors.

**Conclusion:** The study strongly brings out that evil of domestic violence exists in the rural areas and lack of education, both among men and women and use of alcohol by spouses were the major perpetrators of the evil. A daunting task lays ahead of us to address this at all possible levels.

**Keywords:** Domestic Violence, Ever Married Women, Mental Health, GHQ-12

## Introduction

India is appreciated worldwide for its penchant for cultural values and respect for women. However the grey side to it has been uncovered by several studies that suggest that women are the chief victims of domestic violence in the country [1-3].

Socio-behavioural determinants have emerged as the main attributes for domestic violence [4-6] and it has been identified as a major underlying cause of poor mental health and negative health outcomes among women in India. In a male dominated society, the measure of this problem is difficult to get and in compromised settings like rural, an attempt to know this problem, often offers a broader perspective of how to strategize women based programmes.

Currently in eye of the SDG 2030, India, especially its

Empowered Action Group (EAG) states are under pressure to improve their maternal indicators. Odisha, the state where the study is carried out has strong cultural and traditional beliefs, mainly agriculture based and low socio economic as well as health indicators among the rural population. Odisha at the same time is also placed 11th in the list of the states ranked for crimes against women as per NCRB report 2005 [7]. Hence this study was undertaken as part of a bigger study wherein women's mental health assessment was done using a pretested tool and various family, self and demographic factors were assessed for any association with the prevailing mental health condition.

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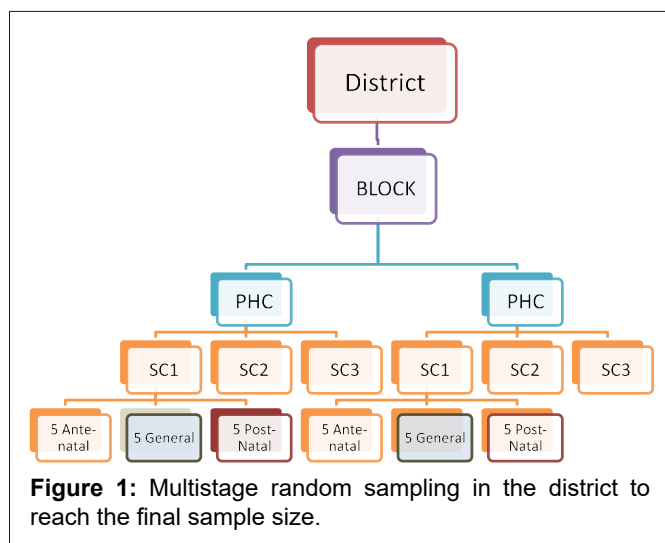
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## Objectives

1. Prevalence of domestic violence in the women of reproductive age group stratified as pregnant, lactating and non-pregnant and non-lactating (NPNL)
2. To assess the mental health and risk factors which are associated with domestic violence in the women

## Material and Methods

The given study is an excerpt of a larger study designed to conduct a dipstick assessment of mental health problem in women wherein women of reproductive age groups i.e., 18-49 years were selected in three categories i.e., pregnant, lactating (having babies of 6months of age) and non-pregnant and non-lactating from 5 districts of Odisha- Khordha, Jagatsinghpur, Kendrapada, Deogarh and Khandamal (selected by random selection in the decreasing order of Human Development index of districts). The upper limit of the age group of women was taken 18 years instead of 15 years as the permissible marriageable age of women in India is 18 years and the study was targeted for all ever married women within the reproductive age group. Teenage marriage was beyond the scope of the study and had legal and ethical limitations. The study was conducted after the institutional ethical committee as well as the state ethical committee clearance as it was a population based study (Figure 1).



Prevalence of mental ill health as reported among Indian urban slum women is around 12 % [8] wherein the urban slum are actually rural migrants and hence this prevalence was taken to calculate the minimal sample size required at a confidence limit of 95% and accepting a difference of up to 2% of the true population was calculated at approximately 900.

Adding 10% as non-response rate another 90 can be added taking the number to nearly 1000. Since a multistage sampling (as shown in Figure 1-2 blocks from each chosen district, wherefrom 2 PHCs from each block and eventually 3 sub centers from each PHC) was planned along with a design effect of 1.2; final optimum sample size was 1200; currently 5 districts and sample of 900 completed. A total of 300 each

from among pregnant, lactating and non-pregnant and non-lactating were selected from each of the selected districts. The inclusion criteria was women aged 18-49 years, ever married, consenting to participate. Chronically sick and mentally disabled women were excluded from the study.

The study tool was a pretested, predesigned questionnaire, which was translated and back translated into the local language i.e., Oriya and used to collect information on sociodemographic, family and individual factors and then eventually score their mental health by using a validated scoring i.e., General Health Questionnaire 12 (GHQ12) [9].

The likert scale scoring of 0,1,2,3 was used to derive the mental health score which varied from 0-36. The positive items were corrected from 0 (always) to 3 ( never ) and the negative ones from 3 (always) to 0 (never). High scores indicate worse health. In most studies the 0, 1 scoring is more validated and hence the score varied from 0-12 and a score of 2/3 was taken as the cut off for poor mental health i.e., scores more than 3 were regarded as poor scores [10,11]. However among the poorly literate population sample of this study, the 0, 1 scoring was not very conclusive and the likert scale was responded better as it produced a more acceptable distribution of scores for parametric analysis (less skewed and less kurtosis) [12]. It is recommended that the mean GHQ score for the whole sample population of respondents provides a rough guide to the best cut-off threshold [13].

This clearly suggests that if investigators wish to use a screening instrument as a case detector which is the long term goal of the study, the shorter GHQ is remarkably robust and works as well as the longer instrument [14].

In this sample the mean GHQ came out to be 10.45 (SD:4.48). Hence we took 11 as the cut off for normal and scores above 11 were considered to be offering a valid measure of psychological distress.

In the study the operation definition of Domestic Violence (DV) was as follows:

Respondents were asked experience of specific acts of physical violence at household premises (irrespective of perpetrators) in the last 6 months. Any reference to any physical violence reported once or more in last 6 months was taken as yes for DV [15].

Physical violence by any person at home:

- was slapped or had something thrown at her that could hurt her
- was pushed or shoved

Severe violence:

- was hit with fist or something else that could hurt
- was kicked, dragged, or beaten up
- was choked or burnt on purpose
- Perpetrator threatened to use or actually used a gun, knife, or other weapon against.

Details of the violence were not reported explicitly by the women, only information regarding whether they were victims of domestic violence could be obtained from this study. Being married and as the respondent was interviewed within the household, these details were patchily obtained and not included in the analysis.

For ethical reasons questions on intimate partner violence could not be asked. It was very difficult to elicit the data on the questions and also no way to authenticate the replies-subject to reporting bias, and hence was not analyzed as already stated. Controlling behavior which is a part of the tool of DV assessment was not assessed. Forms of DV (severe and harassing) were not assessed due to jeopardy of the broader objectives of the study.

### Data analysis

For the current analysis, a report of domestic violence among the responding women was the independent variable and was analyzed qualitatively using univariate analysis against socio demographic and family factors. Multiple logistic regressions were used to find out the most significant factors in the current sample (Table 1).

In all the 3 categories above 10% reported at least one episode of DV in last six months during the study period; highest being among lactating women i.e., 17.9% with a 1.5 times more likely to be afflicted with domestic violence, which is just significant (Table 2).

Higher GHQs which as described in methodology are indicative of psychological distress and in this sample DV is not showing a significant association with mental health which is because in married women DV is accepted as common occurrence and is often regarded as circumstantial. The women also during the study had refused to have sought any legal or legislative help for the same. Most of the conflicts as described by them were resolved amicably by discussion, with the perpetrators of the violence which was reported as husbands in 29.6% of the cases and in rest of the cases other family members. Information on specific causes and degree of violence inflicted was beyond the scope of the study. (Table 3)

Table 3 indicates the results of the univariate analysis wherein DV reports were analysed against sociodemographic and personal behaviour. Only some pertinent parameters are

reflected in the table discussed. Higher levels of education among the respondent women, higher education of the principal bread winner of the family, general caste and joint family were seen as protective factors against DV in the study. Use of occasional alcohol by the spouse (4.17; 2.77 – 6.27,  $p < 0.001$ ) and weekly use raised the risk to nearly six times which was highly significant. Casual employment of the woman was also 2.19 times higher reported in women who were victims of DV, which was significant. (Table 4)

Effects of all the other factors were adjusted and were not significant in multiple regressions. When all the variables were adjusted and compared via a multiple logistic regression analysis for the rural women in Odisha, alcohol use by the spouse was prioritized as the most significant cause of DV on women and higher education of the principal bread winner, which in this case was primary and above was the most protective factor against DV.

### Discussion

The current study highlights the need of education and discouraging rural men from alcohol addiction to safeguard the rights and well-being of the village women. In the west, where human rights issues have gained momentum since over 2 decades, the public health community has become increasingly aware that “this violence is a serious public health problem and that nonfatal interpersonal violence has far-reaching consequences in terms of morbidity and quality of life. [16]

Interestingly, in this study no significant association was found between mental health of the women which was assessed using GHQ12 while in several studies in west as well as in India, research evidence now clearly shows a direct link between women’s experiences of domestic violence and heightened rates of depression, trauma symptoms, and self-harm [17, 18]. This could be because of the highly male dominant society in rural areas and it is also evident that the DV is less in women with comparatively higher education hinting at women empowerment.

In a similar study[19] done in 7 cities of India among married women, where data was stratified for urban slum, urban non slum and rural areas, poor mental health (assessed by Self Report Questionnaire SRG-20) came to be 48%, 44% and 23%. This study was done with the primary objective of

Characteristics	Total	Domestic Violence		OR (95% CI)	P value
	(N=900)	No (n %)	Yes (n %)		
Women Category					
Pregnant	300	263 (87.6)	37 (12.4)	1	-
Lactating	300	247 (82.1)	53 (17.9)	1.55 (0.98 – 2.43)	0.059
NPNL	300	251 (83.7)	49 (16.3)	1.38 (0.87 – 2.19)	0.168

**Table 1:** Reports of DV in the 3 categories of women.

Domestic Violence	Freq	GHQ≤11	GHQ≥12	0.49
Yes	140	89 (63.6)	51 (36.4)	
No	760	506 (66.6)	254 (33.4)	

**Table 2:** Domestic violence and its role on mental health in the sample.

Characteristics	Total	Domestic Violence		OR (95% CI)	P value
	(N=900)	Yes (n;%)	No (n;%)		
Women employment					
None	816	691 (84.8)	124 (15.2)	1	-
Casual	46	33 (71.7)	13 (28.3)	2.19 (1.12 – 4.29)	0.021
Contractual	14	11 (78.6)	3 (21.4)	1.52 (0.41 – 5.52)	0.525
Permanent	24	24 (100)	0 (0.0)	1	-
Women Education					
illiterate	328	263 (80.2)	65 (19.8)	1	-
Just literate	257	226 (87.9)	31 (12.1)	0.55 (0.34 – 0.88)	0.018
Primary and above	315	271 (86.0)	44 (14.0)	0.66 (0.43 – 0.99)	0.049
Education of PBW*					
Illiterate	455	370 (81.5)	84 (18.5)	1	-
Just literate	92	83 (90.2)	9 (9.8)	0.48 (0.23 – 0.99)	0.047
Primary and above	353	306 (86.7)	47 (13.3)	0.67 (0.45 – 0.99)	0.048
Caste					
Minority	406	331 (81.5)	75 (18.5)	1	-
OBC	318	266 (83.6)	52 (16.3)	0.86 (0.58 – 1.27)	0.457
General	176	163 (92.6)	13 (7.4)	0.35 (0.19 – 0.65)	0.001
Disabled in the family					
No	53	46 (86.8)	7 (13.2)	1	0.627
Yes	847	714 (84.3)	133 (15.7)	1.22 (0.54 – 2.77)	-
Type of Family					
Nuclear	194	159 (82.0)	35 (18.0)	1	-
Joint or extended	706	601 (85.1)	105 (14.9)	0.78 (0.52 – 1.21)	0.284
Alcohol by Spouse					
Never	532	491 (92.3)	41 (7.7)	1	-
Occasional in month	306	227 (74.2)	79 (25.8)	4.17 (2.77 – 6.27)	<0.001
Twice to thrice a week	60	40 (66.7)	20 (33.3)	5.99 (3.20 – 11.18)	<0.001
Self-Addiction					
Yes	22	16 (72.7)	6 (27.3)	1	-
No	876	742 (84.7)	134 (15.3)	0.48 (0.19 – 1.25)	0.134

**Table 3:** Univariate analysis (factors associated with domestic violence). PBW\*=Principal bread winner of the family.

Characteristics	OR (95% CI)	P value
Education of PBW		
Illiterate	1	
Just literate	0.69 (0.29 -1.64)	0.405
Primary and above	0.28 (0.09 -0.84)	0.024
Alcohol by Spouse		
Never	1	-
Occasional in month	4.44 (2.89 -6.82)	<0.001
Twice to thrice a week	9.03 (4.33 -18.8)	<0.001

**Table 4:** Multiple logistic regression analysis (independent risk factor of domestic violence).

assessing domestic violence and was done through the local medical bodies closely working in those areas. This shows that this social evil has an iceberg phenomenon and needs very sensitive handling to be uncovered. The same study also suggested that alcohol consumption to be a major situational cause for subjugation of the womenfolk.

The same study and other studies [19, 20] also brought out that good social and family support is a major protector against DV. In our study the higher education of the principal bread winner, which is a proxy for head of the household had a

significant protecting bearing on prevalence of DV among the same household women.

The fact that the DV was more among the lactating women, irrespective of the gender of the child is an appalling finding in the study.

Lactation period is already identified as a cause for postnatal depression and is a time when the woman needs maximum support from within the family. Same is the case for antenatal wherein the DV was 12.4% and thus needs urgent addressal.

Being a cross-sectional study and with budgetary constraints, it was not possible to follow up the study subjects for any transition in their GHQ scores after delivery or in the latter postnatal period. Hence it is strongly recommended that a mental health assessment is incorporated into the cycle of continuum of care for women, wherein such social and behavioural causes for poor mental health outcomes can be identified and then some support offered in terms of family or individual counselling, which is sure to improve the overall health of the woman.

The support of DHR, India is acknowledged in the study and

it is urged to conduct such large scale assessments into women mental health which may give us the added advantage to uncover social evils like domestic violence and hence help the women more holistically.

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