

Violence against Women by their Husband and Postpartum Depression

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ABSTRACT

Background: Violence against women in developing countries is very high with very little to choose between the cities and provinces. In Nepal too, violence against women is very rampant. This occurs despite physical violence against women being ascribed as criminal act by Domestic Violence Act. The main objective of the study was to see the association between postpartum depression and violence against women.

Methods: A prospective cohort study was conducted among pregnant women of reproductive age group in two centers. Standard questionnaires were used to collect data regarding violence and for detecting postpartum depression. Three interviews one in antenatal and two in postnatal period were taken.

Results: The incidence of postpartum depression was found to be 19.4 % (95% CI = 14.73 - 24.06) and 22.22% (95% CI = 17.30 - 27.09) during first (6 week postpartum) and second (10th week) postpartum interview respectively. The incidence of physical, psychological and sexual violence was found to be 20.8% (95%CI= 16.01 - 25.58), 19.4% (95%CI= 14.73 - 24.06) and 13.9% (95% CI= 9.82 - 17.97) respectively. No statistically significant relationship could be found between different forms of violence and postpartum depression .The study showed that all the women with bad communication or conversation with the husband had postpartum depression while only 17.1% of women with good conversation had postpartum depression.

Conclusions: No form of violence against women had statistically significant association with development of postpartum depression among Nepalese population.

Keywords: cohort study; postpartum depression; violence.

INTRODUCTION

Violence against women is very high with very little to choose between the cities and provinces.¹ In Nepal too, violence against women is rampant, more so domestic violence.² This occurs despite physical violence against women being ascribed as criminal act by Domestic Violence Act. We the health care providers are in front line for identification and intervention against violence against women.³

Violence against women especially during the pregnancy have been linked with poor physical and mental development of baby in utero.⁴ Also psychological

violence during pregnancy by an intimate partner is strongly associated with postnatal depression, independently of physical or sexual violence.⁵ Previous studies in Nepal show prevalence of depressive symptoms among postpartum women as 4.9% and a strong association with husband's alcoholism, polygamy and previous depression.^{6,7}

The objectives of the study were to find prevalence rate of violence against women, postpartum depression, relationship between violence against women and postpartum depression as well as with other potential factors.

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METHODS

A Prospective cohort study was designed where the study population were pregnant women of reproductive age group (15 to 45 years). The study was conducted in Kathmandu Medical College Teaching Hospital (KMCTH) and Dhading District Hospital from April 2011 to August 2011.

Convenient sampling method was used to collect the sample population and the minimum sample size was determined by using statistical formula;

$$n = (Z_{\alpha/2})^2 \cdot p \cdot q$$

where,

$Z_{\alpha/2}$ = (1.96/0.05), considering 95% confidence interval.

p = prevalence of post partum depression.⁶

q = 1-p

The minimum sample size (N=72) thus determined was collected, of which half of the sample was collected in KMCTH and other half in Dhading District Hospital.

The inclusion criteria were women of age group 15-45 yrs and women in third trimester of pregnancy and the exclusion criteria were women with any obstetric or gynecological complications, women with previous documented history of mental illness and women who do not give consent.

The conduction of the study involved, three interviews, first in antenatal period during routine ANC visit at KMCTH and Dhading District Hospital and two during their visit to hospital for immunization of their child during 6-10 weeks postpartum or over the telephone (if not coming to hospital for immunization). Data regarding violence against women and depression was collected using standard questionnaire. For violence against women, structured questionnaire regarding physical, sexual and psychological violence, which was used in WHO multi centric study will be used.¹ For screening of postpartum depression, Edinburgh Postpartum Depression Scale (EPDS) was used.⁸ Depression was defined by EPDS score of 13 or more.⁹

Analysis of data was done using Statistical Package for Social Science version 16 to estimate odds ratios (ORs) and 95% Confidence Intervals of the association of postnatal depression with forms of partner violence during pregnancy, and other variables.

The Study was given ethical approval by Kathmandu Medical College Institutional Review Board (KMCIIRB).

Written informed consent was taken from each participant. Participants were free to decide whether to participate on the study or not.

RESULTS

All the participants (n=72) of the study were closely followed up during the postpartum period, with 86.66% being interviewed in the hospital during their visit for the immunization of their child while 13.44% were interviewed over the telephone as they did not come for immunization. On an average the antenatal interview were longer (13.7minutes) than the postpartum interview (7.2 minutes at 6 weeks and 5 minutes at 10 weeks).

The incidence of postpartum depression was found to be 19.4% (95% CI = 14.73 - 24.06) and 22.22% (95% CI = 17.30 - 27.09) during first (6 week postpartum) and second (10th week) postpartum interview respectively. The incidence of physical, psychological and sexual violence was found to be 20.8% (95% CI= 16.01 - 25.58), 19.4% (95% CI= 14.73 - 24.06) and 13.9% (95% CI= 9.82 - 17.97) respectively.

No statistically significant relationship could be found between different forms of violence and postpartum depression (Table 1,4).

However, the study showed that all the women with bad communication or conversation with the husband had postpartum depression while only 17.1% of women with good conversation had postpartum depression.

Postpartum depression was found to be higher among women attending Dhading district hospital as compared to Kathmandu Medical College Teaching Hospital though the relationship was not significant statistically (p value=0.067, OR= 0.325, CI 95% = 0.091- 1.157). Postpartum depression was seen higher among housewives than working women (p value= 0.032; OR= 7.10, CI 95% - 0.87- 58.05) in second postpartum interview.

Postpartum depression was found to be significantly associated with current weight of the child (appropriate to age or less than standard weight for age) and suicidal tendency in both first and second postpartum interviews (Table 2,5).

The odds of developing postpartum depression in reference to various variable during first interview (Table 3).

Table 1. Association of postpartum depression with different forms of violence at 6 weeks postpartum

		Postpartum	Depression	Crude Odds Ratio (95% CI)	P value
		Yes n (%)	No n (%)		
Psychological violence	Yes	3 (21.4)	11 (78.6)	1.165 (0.277- 4.896)	0.55
	No	11 (19)	47 (81)		
Physical Violence	Yes	4 (26.7)	11 (73.3)	1.709 (0.451- 6.478)	0.33
	No	10 (17.5)	47 (82.5)		
Sexual Violence	Yes	2 (20)	8 (80)	1.042 (0.196- 5.548)	0.63
	No	12 (19.4)	50 (80.6)		

Table 2. Association of postpartum depression with with weight of the baby and suicidal tendency at 6 weeks postpartum

		Post partum	Depression	Crude Odds Ratio (95% CI)	P value
		yes n (%)	No n (%)		
Current weight	Less than standard weight for age	8 (61.5)	5 (38.5)	14.133 (3.484 - 57.33)	<0.0001
	Appropriate to age	6 (10.2)	53 (89.8)		
Suicidal tendency	Yes	7 (50)	7 (50)	7.286 (1.962 - 27.059)	0.004
	No	7 (12.1)	51 (87.9)		

Table 3. Association of postpartum depression with various factors at 6 weeks postpartum

		Postpartum	Depression	Crude Odds Ratio (95% CI)	P value
		yes n (%)	No n (%)		
Place	Kathmandu	4 (11.1)	32 (88.9)	0.325 (0.091-1.57)	0.067
	Dhading	10 (27.8)	26 (72.2)		
Occupation	Housewife	13 (24.5)	40 (75.5)	5.85 (0.71-48.17)	0.062
	Employed	1 (5.3)	18 (94.7)		
Education	Less than SLC	9 (23.7)	29 (76.3)	1.8 (0.538-6.026)	0.255
	More than SLC	5 (14.7)	29 (85.3)		
Employment status of husband	Unemployed	1 (50)	1 (50)	4.385 (0.257-74.785)	0.35
	Employed	13 (18.6)	57 (81.4)		
Excess alcohol intake by husband	Yes	3 (30)	7(70)	1.98 (0.443-8.916)	0.299
	No	11 (17.7)	51 (82.3)		
Controlling behaviour of husband	Yes	2 (15.4)	11 (84.6)	0.712 (0.139-3.365)	0.513
	No	12 (20.3)	47 (79.7)		
Baby	Pre term	1 (50)	1 (50)	4.385 (0.257-74.78)	0.353
	Term	13 (18.6)	57 (81.4)		
Health of baby	Unhealthy	1 (16.7)	5 (83.3)	0.815 (0.088-7.591)	0.67
	Healthy	13 (19.7)	53 (80.3)		
Sex of baby	Female	8 (22.9)	27 (77.1)	1.531 (0.472-4.970)	0.34
	Male	6 (16.2)	31 (83.8)		
Birth weight	Low	3 (42.9)	4 (57.1)	3.682 (0.72-18.81)	0.128
	Normal	11 (16.9)	54 (83.1)		

Table 4. Association of various forms of violence and postpartum depression at 10 weeks postpartum

		Postpartum	Depression	Crude Odds Ratio (95% CI)	P value
		yes n (%)	No n (%)		
Psychological violence	Yes	4 (28.6)	10 (71.4)	1.533 (0.409-5.752)	0.376
	No	12 (20.7)	46 (79.3)		
Physical Violence	Yes	4 (26.7)	11 (73.3)	1.364 (0.368-5.052)	0.439
	No	12 (21.1)	45 (78.9)		
Sexual Violence	Yes	1 (10)	9 (90)	0.348 (0.041-2.977)	0.292
	No	15 (24.2)	47 (75.8)		

Table 5. Association of current weight of child and suicidal tendency with postpartum depression at 10 weeks postpartum

		Postpartum yes n (%)	Depression No n (%)	Crude Odds Ratio (95% CI)	P value
Current weight	Less than standard weight for age	7 (53.8)	6 (46.2)	6.481 (1.765-23.807)	0.006
	Appropriate to age	9 (15.3)	50 (84.7)		
Suicidal tendency	Yes	7 (50)	7 (50)	5.44 (1.535-10.310)	0.01
	No	9 (15.5)	49 (84.5)		

Even though the prevalence of postpartum depression during second interview was higher than that during first interview, no other significant association was found between various variables than those seen in first interview.

DISCUSSION

The interview during antenatal visit included short explanation regarding the study, attaining consent and then data regarding violence against them. Hence the duration of interview was longer compared to postpartum interview. All the participants from antenatal visits were traced out in immunization clinic or through telephone hence no loss in follow up was met.

Two postpartum interviews were conducted to screen postpartum depression, as when the condition would emerge could not be predicted or available in literature. Hence same case was followed up to 10 weeks postpartum and interviewed at 6th and 10th week postpartum. It showed that 2.8% of the participants who did not have postpartum depression during interview at 6th week had developed during 10th week interview. Hence till when should the interview be continued to get a true picture of postpartum depression is largely unknown with Ludemir et al following upto 6 month after the delivery.

The prevalence of postpartum depression among Nepalese study population was found to be 22.2% in the study which was slightly less than that found in multi centric study published in Lancet, which showed that 25.8% of participants had postnatal depression.⁵ The higher prevalence of postpartum depression may be because longer timing of follow up. In our study we followed up for first two and half months after delivery of the baby, while Ludimir et al followed up from 3 to 6 months after the delivery. Prevalence of postpartum depression in our study was however much higher than that found by Dorhiem SK who showed prevalence postpartum depression to be 4.9% in Nepalese population.⁶ The possibility of either rise of incidence of postpartum depression or underreporting of it back then are both highly likely.

In our study population the commonest form of violence was physical violence which was experienced by 20.8% of the participants while the multi centric study published in Lancet showed that the most common form of partner violence against women was psychological which was found to be 28.1%.⁵ In our study no form of violence against women were found to be significantly (statistically) associated with postpartum depression. However odds of developing postpartum depression was higher among those experiencing physical violence, but most probably due to smaller sample size the statistically significant association could not be derived. This was in contrast to those found by Ludemir et al where women experiencing high frequency of psychological violence were likely to develop it.⁵ The discrepancy in the findings can also be attributed to perception of Nepalese women where they tend to take violence against them by husband to be normal occurrences and nothing to worry about.

Previous studies in Nepal shows that depression (EPDS>12) was strongly associated with husband's alcoholism, polygamy and previous depression in Nepal. The odds of development of postpartum depression among women whose husband used to consume excess alcohol was higher in our study too. (OR 1.98, 95% CI (0.443-8.916)). Polygamy as a variable was not studied in our study, and previous history of depression was an exclusion criteria for our study.⁷

Current weight of the child however, was one of the factor determining development of postpartum depression in a women as shown by the study. The well being of the child is a factor for precipitating postpartum depression. Similarly other factors that could precipitate postpartum depression were analyzed, however the significant relationship could not be elicited per se may be due to smaller sample size.

CONCLUSIONS

Hormonal factors may be important in development of postpartum depression in a women, however similar hormonal changes occurs in all the parturient women. Hence external factors such as lack of weight gain in

the child, illness of the child, poor communication with husband, violence against women and others may be very important in development of the postpartum depression. This form of depression is largely avoidable and may lead to deleterious effect on growth and development of the child. Various factors can have their say in developing postpartum depression in a women, even though the relationship could not be found statistically in our study, we suggest and strongly recommend a large population based comprehensive study on the topic. Similarly in this study we followed up only the women who had live birth. Women who had still birth or whose child died before the follow up period were not included in the study. This along with smaller sample size and convenient sampling method are the limitations of the study.

ACKNOWLEDGEMENTS

We would like to thank Prof. Chanda Karki, Prof. Puspa Raj Sharma, Prof. DS Manandhar, Associate Prof. Sunil Kumar Joshi, Asst. Prof. Nira Singh Shrestha, Asst. Prof. Subash Chandra Sharma, Umesh Raj Aryal (Biostatistician), Binayatara Foundation and whole of Department of Obstetrics and Gynecology, Department of Pediatrics for their help.

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