

# BEHAVIOURAL FACTORS ON PRETERM BIRTH

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## Introduction

Maternal and Infant Mortality rates are critical indicators that reflect the need to strengthen the health status of a community or country. Maternal and Infant mortality continue to be an area of concern across the globe despite advances in various sectors such as science and technology, industry and so on. In recent years, there has been increasing concern about violence against women in general and domestic violence in particular, in both developed and developing countries.

(United Nations General Assembly, 1999). Violence during pregnancy leads to adverse pregnancy outcomes. Several studies relate abuse during pregnancy to an increased risk of preterm birth. (C. Berenson. et.al., 1999 & Maureen. I.H., 2005).

In India most of the studies are related to domestic violence against women or intimate partner violence and violence during pregnancy goes along with. There is a gap in the identification of violence during pregnancy and its outcome.

## Prevalence of Violence during Pregnancy

### INDIA \*

• States	Bihar	Jharkhand	Maharashtra	Tamil Nadu
• Reported violence during pregnancy	14.1 %	17.7%	9.8 %	15.0 %

## Methods:

The aim of the study was to examine the effect of personal life style, behavioral and other associated factors on preterm birth. Case-Control Study Design was used to conduct at the Institute of Obstetrics & Gynecology and Government Hospital for women and children, Chennai, during

2002-2004, with the sample size of 640. Three hundred twenty Cases samples and Control 320 were selected. (Cases and Control were defined as women who delivered before 37 weeks of gestation). Data analysis by Bivariate, Multivariate Logistic regression analysis for risk identification was done. The association between contributive factors with the outcome of pregnancy was

first evaluated individually using  $\chi^2$  test for categorical data.

## RESULTS

### DEMOGRAPHIC FACTORS

**Maternal age:** The analysis of survey data shows that over 16% of all mothers interviewed are less than 18 years of age. The individual analysis of age of preterm mothers indicates that about 19.1% of preterm mothers are less than 18 years of age. Compared to this, only 13.1% of term mothers fall in this category. More number of preterm and term mothers are seen in the age group between 18 and 22 with 37.5% and 48.1% respectively. This is followed by 23.8% of preterm mothers and 25.6% of term mothers between 22 and 26 years. The percentage of preterm and term mothers participated in the survey in the age group between 26 and 30 is 15.3% and 10.9% respectively. In the sample selected the mothers who have crossed the age of 30 at the time of delivery is 4.4% in preterm group and only 2.2% under term delivery group.

The mean age of preterm mothers works out to  $22.09 \pm 3.71$  SD. The term mothers have an average age of  $22.87 \pm 4.54$  SD. This is a clear indication of the ground condition that is prevailing. The test of significance indicates the association between the age and the outcome of delivery ( $P=0.001$ ). The odds ratio proves that the mothers of age less than 18 are 1.6 times more prone to preterm delivery than mothers in other age groups (OR 1.6(1-2.5)).

### Family system

The presence of mothers living in joint, extended and nuclear family system is

presented in Table 4.3 along with the outcome of pregnancy. About 34.7% of the preterm mothers live in joint family compared to higher share of 41.6% under term (Figure 4.4). Nuclear family system encompasses about 52.8% of preterm mothers and 45.6% of term mothers. The test of significance shows the absence of any association between the family system and the outcome of pregnancy ( $p=0.15$ ).

### Literacy level

As much as 17.2% of the preterm mothers against 8.1% of the term mothers are not able to read their regional language. Those who have primary education constitute 36.6% in preterm group and 31.6% in term group. The percentage of mothers who have done their schooling is over 40% under preterm and about 52% in term group. There are about 5% of the preterm mothers who have done up to college education and it is over 8% in term group. The test of significance indicates a positive association between the literacy level and the outcome of pregnancy ( $P=0.001$ ). The mothers who are illiterates are 3.29 times more prone to preterm delivery than college educated mothers. The mothers who have primary education are also 1.8 times riskier than the mothers who had higher education.

## BEHAVIOURAL FACTORS

### Smoking during pregnancy

Smoking during pregnancy has been identified as one of the major contributive factor for preterm delivery by many researchers around the world. To test the same hypothesis, the mothers were accordingly questioned and it was reported that none of the mothers either in preterm or term had the

practice of smoking. Hence it may be concluded that smoking during pregnancy is not prevalent in majority Indian women.

### Alcohol consumption during pregnancy

Similar to smoking habit, alcohol consumption by women folk is not common practice in India. It is found in this research that some mothers had indirectly accepted that they had consumed alcohol for some reasons. However, 0.6% of preterm mothers and 0.3% term mothers consumed alcohol during pregnancy the rest of the mothers stated that they are not having the habit of consuming alcohol in their life. The absence of association between alcohol consumption and outcome of pregnancy is seen here (P=0.56).

### Physical/verbal abuse during pregnancy

In the current research, the physical abuse has been intolerable for about 20% of preterm mothers compared to only about 4.4% of term mothers (Table 1).

About 12.2% of preterm mothers and 3.8% of term mothers had undergone intolerable verbal abuse as per the versions of the mothers (Table 2). Similar to physical abuse, verbal abuse is also significant over the outcome of pregnancy.

The mothers who experienced intolerable verbal abuse are about 3.93 times riskier than those mothers who have not experienced verbal abuse

**Table 1. Classification of mothers by their physical abuse**

Physical abuse	Group				Odds ratio	$\chi^2$ Trend
	Preterm		Term			
	Number	Percent	Number	Percent		
Intolerable	64	20.0	14	4.4	6.35	$\chi^2 = 45.73$ P=0.001
Tolerable	76	23.8	56	17.5	1.88	
Never	180	56.2	250	78.1	1.00	
Total	320	100.0	320	100.0		

**Table 2. Classification of mothers by their verbal abuse**

Verbal abuse	Group				Odds ratio	$\chi^2$ Trend
	Preterm		Term			
	Number	Percent	Number	Percent		
Intolerable	39	12.2	12	3.8	3.93	$\chi^2 = 14.19$ P=0.001
Tolerable	119	37.2	112	35.0	1.29	
Never	162	50.6	196	61.2	1.00	
Total	320	100.0	320	100.0		

## CONCLUSION

This study suggests that physical and verbal abuse during pregnancy are associated with the risk factors for preterm birth. Personal behaviours like smoking & consumption of alcohol are not existing and negligible. Assessment in different forms are needed for protective factors as well as risk factors to specific communities.

## Bibliography

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