

# Fear of Childbirth Among Antenatal Women Attending Government and Private Hospitals in East Sikkim: A Comparative Descriptive Study

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## Fear of Childbirth Among Antenatal Women Attending Government and Private Hospitals in East Sikkim: A Comparative Descriptive Study

### Abstract

**Introduction:** Pregnancy is a wonderful period in a women's life and she spends each and every day in pleasant anticipation. Even though it is a time of great happiness and fulfilment of the life, pregnancy causes a lot of mental conflicts and feelings which is a natural trend of this period. It is also a time when women might experience a number of physiological and psychological changes. The main aim of the study was to assess and compare the fear of childbirth among antenatal women. **Material and Method:** This descriptive comparative study was performed on 320 antenatal women who were seeking routine antenatal care in Government and Private Hospitals, Sikkim, were planning for normal vaginal delivery, with singleton pregnancy within the age range of 18 to 45 years and in 2<sup>nd</sup> and 3<sup>rd</sup> trimester of pregnancy in 2018 were selected through convenience sampling technique. Data were collected by demographics, questionnaire of pregnancy information, and Standardized Wijma Delivery Expectancy/ Experience Questionnaire (W-DEQ) to assess the fear of childbirth among antenatal women. The collected data were analyzed using independent t-test and chi square. P values lower than 0.05 were considered significant. **Results:** The overall mean fear of childbirth score was higher among antenatal women from Private hospital (179.25  $\pm$  52.52) than that of Government hospital (166.48  $\pm$  56.8) and the difference was statistically significant ( $t = 2.06$ ,  $p < 0.05$ ). Primigravida women had more fear of childbirth than multigravida in both Government and private hospital ( $p < 0.05$ ). It was also noted that in Government hospital, 3<sup>rd</sup> trimester primigravida women had more fear of childbirth ( $p < 0.05$ ) whereas in private hospital, 2<sup>nd</sup> trimester multigravida women had more fear of childbirth score ( $p < 0.05$ ). No significant association was found between fear of childbirth and its subscales and the type of pregnancy (planned or unplanned), sex of the fetus, and age at marriage ( $p > 0.05$ ) but found significant with information related to pregnancy and strategies for the management of fear of childbirth with ( $p < 0.05$ ). **Conclusion:** Considering the high mean scores of fears of childbirth among antenatal women in both the hospitals, it is necessary to highlight the importance and emphasis on psychiatric care during pregnancy and inclusion of training on mental health of pregnant women in routine care during pregnancy. Therefore, vulnerable mothers should be identified and cared for both mentally and psychologically so that fear of childbirth can be prevented.

**Key words:** Fear of childbirth, antenatal women, primigravida women, multigravida women, trimester.

### 1. Introduction

Childbirth is one of the most memorable and rewarding event of a couple's life. No matter how often a woman gives birth, each experience is an intimate and unique celebration of life.<sup>1</sup> Being a parent is one

of the happiest movements in a life.<sup>1,2</sup> <sup>6</sup> Pregnancy is an important transition period for women moving into motherhood. It is a <sup>21</sup> time when women might experience a number of physiological and psychological changes.<sup>2,3</sup> It is understandable that women may have <sup>18</sup> some apprehension because of lack of experience and an upcoming responsibility of motherhood. Some amount of fear is rational and acceptable. Majority of women are able to cope up <sup>24</sup> with these fears and anxieties by self-help efforts, social support and help of medical attendants.<sup>3</sup> but for many women, this period of transition can have emotional difficulty. Some women may struggle with feeling of fear, loneliness sadness, anxiety, and unhappiness.<sup>4,5</sup>

This fear, when excessive, may affect the woman's psychological health and birth outcomes. Known as tokophobia, fear of childbirth affects a substantial portion of pregnant women and contributes to increased rates of elective caesarean sections without medical indications<sup>5,6</sup>.

<sup>6</sup> Today, childbirth is thought to be a frightening matter requiring medical attention, rather than a normal condition. The literature <sup>6</sup> contains many studies on worries and anxiety about childbirth.<sup>5</sup> Several literatures reported that the fears of women identified in studies were pain, panic, sense of failure, losing control, injury to the child and the mother, emergency caesarean section, excessive bleeding, residual part of the placenta, and the development of complications during birth, such as hypertension, permanent damage to the child, episiotomy and death of mother or her child. The literature also shows that women fear damage to the perineum area, adverse effects on sexual life, the screams of the medical staff, failure at birth or insufficient support.<sup>5,6,7</sup>

<sup>4</sup> Today, up to 70% of pregnant women experiencing some of these feelings and approximately 20% of mother experience depression for which they require additional support and counselling. Pregnancy is also a personal experience that elicits a wide range of responses from very positive to negative one due to complexity of this process. Pregnancy and childbirth are a physiological phenomenon as it predisposes women to several health hazards. The aim of preventive medicine is to ensure that throughout pregnancy and puerperium, every mother should have good health and every pregnancy may ultimately result in healthy mother and healthy baby.<sup>4</sup>

A variable number of pregnant women (20% to 78%) <sup>12</sup> report fear associated with pregnancy and childbirth. However, 13% of non-gravida women report fear of childbirth to postpone or avoid pregnancy.<sup>3</sup> Studies have shown that anxiety due to in women may lead to obstetrical complications like Pre-eclampsia, forceps deliveries, prolonged and precipitated, postpartum haemorrhage, manual removal of the placenta, fetal distress, preterm and child birth abnormalities. Hence, maternal death is often not a result of technical incompetence or negligence, but also due to lack of health counselling, lack of health education of the mothers and family about. Limited knowledge to the primi gravid mothers about increases her anxiety. Since it is a first exposure to the mothers, the changes that take place in her body will create anxiety and fear.<sup>6,7,8</sup>

<sup>3</sup> Certain levels of fear and anxiety about childbirth are expected, especially among primi mothers. However, problems arise when these feelings negatively impact a Woman's decisions and perceptions about the birth process. Childbirth-related fear has been described as a negative cognitive assessment of the anticipated childbirth, feelings of fear and anxiety when facing birth, very negative feelings towards birth, and the pathological dread and avoidance of childbirth- 'tokophobia' <sup>7,8,9</sup>

<sup>61</sup> A cross-sectional descriptive study conducted by <sup>20</sup> Farzaneh Soltani, Zahra Eskandari, Batoul Khodakarami, Parisa Parsa, Ghodratoollah Roshanaei to determine factors contributing to the fear of child birth among pregnant women. It was conducted on 335 pregnant women with the gestational age of 16 -40 weeks referred to the health care centres in Iran. The result showed that 89.3% of the women reported fear of child birth irrespective of parity.<sup>10</sup>

In India, particularly in regions like Sikkim, the experience of pregnancy and childbirth is influenced by socio-cultural and healthcare factors. Rising caesarean section rates suggest the presence of underlying <sup>52</sup> issues not adequately addressed in antenatal care. Despite its significance, <sup>5</sup> limited studies have explored the prevalence and nature of FOC among antenatal women in Sikkim. Midwives play a vital role in helping pregnant women to overcome their fear and anxieties about labour and childbirth. Various educational programs and methods have been designed to help pregnant women and both the parents, in general, to know the different aspects of labour and delivery.<sup>11</sup>

## <sup>2</sup> 2. Materials and Methods

This study used a non-experimental, descriptive-comparative design. It was conducted at two major hospitals in East Sikkim: Central Referral Hospital (CRH), a private institution, and Sir Thodup Namgyal Memorial Hospital (STNM), a government-run facility. These hospitals were selected due to their accessibility, feasibility, cooperation from administration, and high antenatal OPD admission. The target population included antenatal women attending the outpatient departments of CRH and STNM. A stratified convenience sampling technique was adopted. Stratification was done based on hospital type, parity (primigravida and multigravida), and trimester (2nd and 3rd). The final sample included 320 antenatal women:

- 160 from government hospital: 80 primigravida (40 in each trimester) and 80 multigravida (40 in each trimester)
- 160 from private hospital: 80 primigravida (40 in each trimester) and 80 multigravida (40 in each trimester)

Sample size was calculated based on an assumed prevalence of FOC at 29%, 5% significance level, and 5% error, yielding 317. The final sample was adjusted to 320 to account for potential dropouts.

### ***Inclusion Criteria:***

- Women aged 18 to 45 years
- In 2nd or 3rd trimester of pregnancy
- Planning for normal vaginal delivery
- Singleton pregnancy
- Willing to participate with informed consent

#### Exclusion Criteria:

- 1st trimester pregnancies
- High-risk pregnancies with cardiac, renal, or psychiatric conditions
- History of infertility treatment
- Planned elective caesarean sections

#### Data Collection Tools

- **Tool 1:** Structured Questionnaire to capture socio-demographic and obstetric information, including age, marital status, educational level, occupation, income, family structure, habitat, previous obstetric history.

**Tool 2:** Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ Version A): A standardized 33-item instrument measuring fear of childbirth. Each item is scored on a Likert scale (0 = not at all to 5 = extremely), with a total score ranging from 0 to 165. A score of  $\geq 81$  indicates phobic fear of childbirth.

Tool 1 was developed based on literature review and expert consultation. Face and content validity were established through review by seven experts from psychiatric and obstetric nursing. The W-DEQ (Tool 2) is a validated, widely used instrument. Reliability of the structured questionnaire was ensured through intra-rater reliability, and W-DEQ showed good internal consistency (Cronbach's  $\alpha = 0.7$ ). A pilot study was conducted on 32 antenatal women (10% of the sample) to test the feasibility of the research protocol. It confirmed clarity, acceptability, and practicality of the instruments.

**Ethical Considerations** Approval was obtained from the Institutional Ethics Committee. Written informed consent was obtained from all participants. Confidentiality and the right to withdraw from the study at any time were assured.

**Data Collection Procedure** Data collection occurred from April 17 to April 24, 2020. Eligible antenatal women attending the OPD were approached, given information about the study, and enrolled upon consent. Data were gathered through face-to-face interviews using the pre-tested instruments. Data were analyzed using SPSS software. Descriptive statistics (frequency, percentage, mean, median, SD) summarized demographic and obstetric characteristics. Inferential statistics included:

- Independent t-test to compare mean FOC scores across groups

- Chi-square test to examine associations between FOC and categorical variables. Significance was set at  $p < 0.05$ .

## Results

### 1. Findings related to Socio-Demographic Profile and Obstetric Characteristics

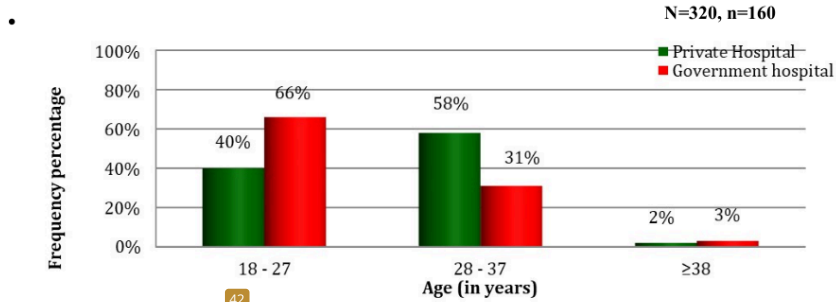


Figure 1: Distribution of antenatal women in terms of their age

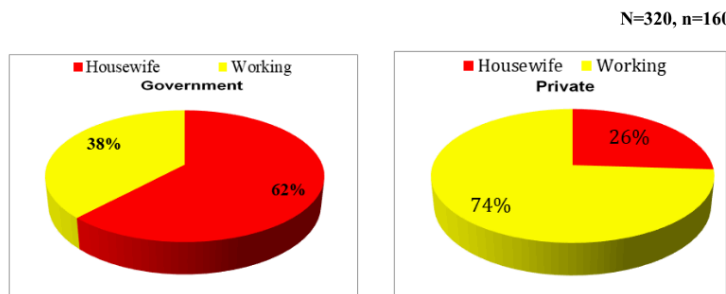
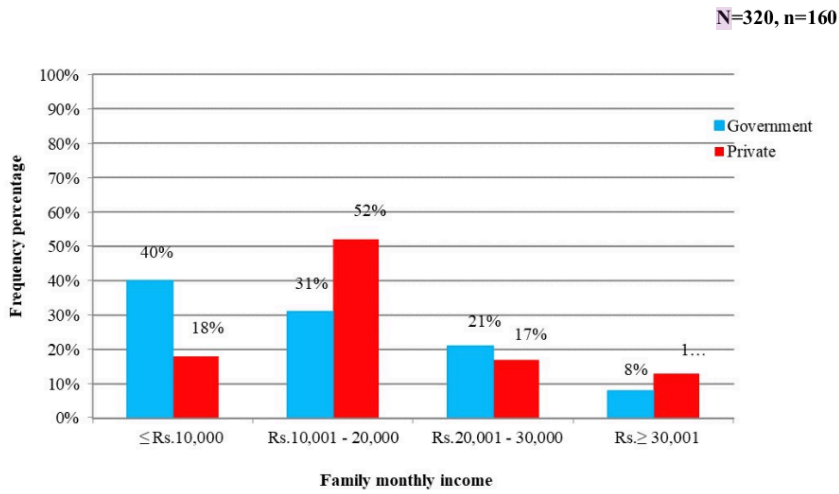


Figure 2: Distribution of antenatal women in terms of their Occupation



**Figure 3: Distribution of antenatal women in terms of their Family Monthly Income**

**Table 1: Distribution of antenatal women attending antenatal outpatient department of Government and Private Hospitals in terms of their demographic variables**

N=320, n=160

Sl.No	Characteristics	Government hospital, n=160		Private hospital, n=160	
		<i>f</i>	%	<i>f</i>	%
<b>1</b>	<b>Type of family</b>				
1.1	Nuclear	72	45	91	57
1.2	Joint	89	55	69	43
<b>2</b>	<b>Occupation (Husband)</b>				
2.1	Employed /government	30	19	70	44

2.2	Unemployed/private	32	20	62	39
2.3	Self employed	62	39	24	15
2.4	Daily wage	23	14	4	2
2.5	Any other	13	8	-	-
4	<b>Received any information/education related to pregnancy</b>				
4.1	Yes	99	62	120	75
4.2	No	61	38	40	25
5	<b>Presence / availability of supportive persons during pregnancy</b>				
5.1	Yes	160	100	160	100
5.2	No	-	-	-	-
6	<b>Do you have fear of childbirth</b>				
6.1	Yes	135	84	85	53
6.2	No	25	16	75	47
6.3	If yes, please tick any of the following, which you are fear of				
	a) Health of the child.	109	81	82	96
	b) Delivery process	67	50	50	59
	c) Vaginal lacerations	16	12	19	22
	d) Lose control over oneself	1	0.7	2	2.3
	e) If others, please specify _____				
7	<b>Any addiction during pregnancy:</b>				
7.1	Smoking	0	0	0	0
7.2	Tobacco	0	0	0	0
7.3	Alcohol	0	0	0	0
7.4	None	160	100	160	100
8	<b>Strategies for management of fear of childbirth (eg. yoga, counseling programmes, therapies etc.)</b>				
8.1	Yes	4	3	40	25
8.2	No	156	97	120	75

Among the 320 participants, the majority of antenatal women in government hospitals were aged 18–27 years (66%), whereas most private hospital attendees were aged 28–37 years (58%). In terms of religion, Buddhist women predominated in government hospitals (37%), while Hindu women formed the majority in private hospitals (61%). Most participants in government hospitals were housewives (62%), whereas in private hospitals, 74% were employed. Educational status of both women and their husbands



was predominantly up to primary to high school level in both settings. Household income varied significantly: 52% of private hospital attendees reported monthly income between ₹10,001–₹20,000, while 40% of those from government hospitals earned ≤ ₹10,000.

Equal numbers of women in their 2nd and 3rd trimesters were included from each hospital. Among multigravida participants, the majority had a previous child aged 1–5 years and in good health. Most had no history of abortion, specific gender preference, or addiction during pregnancy. Only a minority employed strategies to manage FOC or sought medical help for it.

2. Findings related to Fear of Childbirth Scores

Table 2 : Difference in antenatal women’s overall fear of childbirth score in government and private hospital

N=320,n=160

Area	Fear of childbirth score	Mean	Mean difference	SD	SE	‘t’ Value
Government hospital	10989	166.48	159.5	12.77	6.11	2.09
Private Hospital	11831	179.25	177.5			(p<0.05)

df(318)=196. p<0.05

The findings in table 2 shows that the fear of childbirth was much higher among the antenatal women attending antenatal outpatient department in private hospital as compared to government hospital with the mean difference of 12.77 which was found statistically significant as evident by t value at df 318. Hence the difference in fear of childbirth experience by antenatal women in two different sets of hospital is a true difference and not by chance (p<0.05)

Table 3: Difference in area wise mean antenatal women’s fear of childbirth score in Government and Private hospital

N=320. n=160

Domain	Antenatal Women				t test
	Government Hospital		Private Hospital		
	Mean±SD	Mean %	Mean±SD	Mean %	
<b>Fear</b>	124.37±18.88	55%	438.9±53.05	62.1%	70.69 (p<0.05)*
<b>Negative Appraisal</b>	85.76±23.65	34%	275.8±80.14	42.8%	28.77(p<0.05)*

26	Loneliness	85.41±24.38	39%	314.1±146.5	42.7%	19.47 (p<0.05)*
	Lack of self-efficacy	94.16±16.99	41.5%	332.3±30.09	47%	31.91(p<0.05)*
	Lack of positive anticipation	93.93±33.34	46.2%	369.7±209	46.9%	16.91(p<0.05)*
	Concern for the child	83±57.34	52.4%	419.5±6.364	41.5%	74.23(p<0.05)*

df(318)=196, p<0.05

The above table 3 shows that the fear of childbirth in terms of different area was much higher among antenatal women attending antenatal outpatient department in private hospital as compared to government hospital except for the area of concern for the child (p<0.05) which was found slightly higher among antenatal women attending antenatal outpatient department of government hospital, which was found statistically significant as evident by t value at df 318, hence the difference in fear of childbirth experienced by antenatal women in two different sets of hospital is true difference and not by chance (p<0.05)

Private hospital participants scored higher in all domains:

- Fear: 62.1% (Private) vs. 55% (Government)
- Negative Appraisal: 42.8% vs. 34%
- Loneliness: 42.7% vs. 39%
- Lack of Self-Efficacy: 47% vs. 41.5%
- Lack of Positive Anticipation: 46.9% vs. 46.2%
- Concern for Child: 41.5% (Private) vs. 52.4% (Government) [Only domain where government scored higher]

**Table 4: Difference in antenatal women's overall fear of childbirth score in Government and private hospital in terms of Parity**

N=320,n=160

Area	Antenatal women						t-test
	Primigravida (n=80)			Multigravida (n=80)			
	Total	Mean±SD	Mean%	Total	Mean±SD	Mean%	
	Score			Score			
Government Hospital	6283	190.39	47.59%	4706	142.5	49.33	35.65 (p<0.05)*
Private Hospital	6441	195.18	48.84%	5390	163.33	50.74	40.83 (p<0.05)*

t- test	0.600(p>0.05)	2.52 (p<0.05)*
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df (158)=1.98, p>0.05


The study reveals that there is a statistically significant difference in the overall score of fear of childbirth among antenatal women in government and private hospital in terms of hospital wise comparison where more fear of childbirth score was observed in antenatal women of private hospital (Table 4).

Fear of childbirth score was seen more in primigravida antenatal women in Government Hospital as compared to multigravida women where a significant difference was noted. Similarly in Private Hospital, fear of childbirth score was observed to be more in primigravida women than multigravida women and also a significant difference was established between the two-government hospital had mild fear, but this difference was not found statistically significant. Overall, private hospital attendees had significantly higher mean FOC scores ( $179.25 \pm 52.52$ ) than those in government hospitals ( $166.48 \pm 56.80$ ). The difference was statistically significant ( $t = 2.09$ ,  $p < 0.05$ ).

Primigravida women exhibited higher fear scores in both hospital types:

- Government: Primigravida =  $190.39 \pm 49.33$  vs. Multigravida =  $142.5 \pm 54.22$  ( $p < 0.05$ )
- Private: Primigravida =  $195.18 \pm 50.74$  vs. Multigravida =  $163.33 \pm 50.06$  ( $p < 0.05$ )

**Table 5: Difference in antenatal women's fear of childbirth score in in terms of Trimester of pregnancy**

							N=80, n=40
Area	Primigravida Antenatal Women						t- test
	2 <sup>nd</sup> Trimester, n=40			3 <sup>rd</sup> Trimester, n=40			
	Mean± SD	Mean %	Total Score	Mean ± SD	Mean %	Total Score	
Government Hospital	77.84±28.4	38.9%	2569	101.8±32.84	50.9%	3360	3.488 (p<0.05)
Private Hospital	98.8±28.47	49.42%	3262	96.24±25.76	48.12%	3176	0.421 (p>0.05)

t- test	3.29(p<0.05)	0.84(p>0.05)
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\*df (78)=2.0, p>0.05

The above table shows that the scores for fear of childbirth among Primigravida antenatal women in 2<sup>nd</sup> trimester was much lower than 3<sup>rd</sup> trimester women in government hospital which shows 3<sup>rd</sup> trimester Primigravida women had more fear of childbirth (p<0.05). The data in table also shows that in private hospital, 2<sup>nd</sup> trimester primigravida scored higher score as compared to 3<sup>rd</sup> trimester but no significant difference was noted between 2<sup>nd</sup> and 3<sup>rd</sup> trimester as both the trimesters scored high on fear of childbirth. (p>0.05).

The table also shows that in case of 2<sup>nd</sup> trimester primi gravida women attending both government and private hospital, there was significant difference was found in terms of trimester (p<0.05). Thus in case of primi gravida women, who are in 2<sup>nd</sup> trimester has much high on fear of childbirth (Table 5).

**Table 6: Difference in antenatal women's fear of childbirth in terms of Trimester of pregnancy**

**N=80,n=40**

Area	Multigravida Antenatal Women						t- test
	2 <sup>nd</sup> Trimester, n=40			3 <sup>rd</sup> Trimester, n=40			
	Mean±SD	Mean %	Total Score	Mean±SD	Mean %	Total Score	
Government Hospital	77.84±28.4	38.9%	2569	63.06±28.6	31.5%	2081	3.04 (p<0.05)
Private Hospital	87.2±25.51	43.6%	2877	76.21±29.4	38.1%	2515	1.78 (p>0.05)
t- test	1.549(p>0.05)			2.02(p<0.05)			

\*df (78)=2.0, p>0.05

- In government hospitals, 3rd trimester primigravida had significantly higher fear (p < 0.05)
- In private hospitals, 2nd trimester women showed higher mean scores, but the difference was not statistically significant

Among multigravida women, 2nd trimester women had higher fear scores than 3rd trimester women in both hospitals, with significance noted in government hospitals (p < 0.05). No cases of intense fear were reported (Table 6).

### 3. Findings related to Associations with Socio-Demographic Variables

**Table 7: Association between the fear of childbirth among antenatal women with selected demographic variables in Government and Private Hospital**

**N=320,n=160**

Sl. No	Demographic Variables	Government Hospital				Private Hospital			
		$\chi^2$	df	P value	Remarks	$\chi^2$	df	P value	Remarks
1	Age (in years)	2.74	2 (5.99)	P>0.05	Non-significant	9.48	2(5.99)	P<0.05	Significant
2	Religion	5.2	3(7.82)	P>0.05	Non-significant	4.9	3(7.82)	P>0.05	Non significant
3	Education of wife	3.91	3(7.82)	P>0.05	Non-significant	6.83	3(7.82)	P>0.05	Non significant
4	Education of Husband	4.03	3(7.82)	P>0.05	Non-significant	5.36	3(7.82)	P>0.05	Non significant
5	Occupation of wife	3.52	3(7.82)	P>0.05	Non-significant	11.8	3(7.82)	P<0.05	Significant
6	Occupation of Husband	4.65	2 (5.99)	P>0.05	Non-significant	10.1	3(7.82)	P<0.05	Significant
7	Habitat	0.19	1 (3.84)	P>0.05	Non-significant	0.36	1(3.84)	P>0.05	Non significant
8	Type of family	1.99	1(3.84)	P>0.05	Non-significant	2.46	1(3.84)	P>0.05	Non significant
9	Monthly income	0.43	1(3.84)	P>0.05	Non-significant	4.6	2(5.99)	P>0.05	Non significant
10	Received any information	0.73	1(3.84)	P>0.05	Non-significant	7.5	1(3.84)	P<0.05	Significant
11	Healthcare prefer	0.45	1(3.84)	P>0.05	Non-significant	0.46	1(3.84)	P>0.05	Non significant
12	Do you have fear of child birth	1.06	1(3.84)	P>0.05	Non-significant	0.02	1(3.84)	P>0.05	Non significant

The findings in table 7 shows that the p value is less than 0.05 in age of the antenatal women and occupation of husband and wife which concludes that there is a significant association of these variables with fear of childbirth in private hospital.

**Table 8: Association between the fear of childbirth among antenatal women with selected Obstetrical variables in Government and Private Hospital**

N=320,n=160

Sl. No	Obstetrics Variables	Government Hospital				Private Hospital			
		X <sup>2</sup>	df	P-value	Remarks	X <sup>2</sup>	df	P-value	Remarks
1	Age at marriage	0.29	1(3.84)	P>0.05	Non-significant	0.44	1(3.84)	P>0.05	Non significant
2	Trimester of pregnancy	0.09	1(3.84)	P>0.05	Non-significant	12.08	1(3.84)	P<0.05	Significant
3	Parity	0.39	1(3.84)	P>0.05	Non-significant	12.08	1(3.84)	P<0.05	Significant
4	Strategies for management of Fear of childbirth	7.9	1(3.84)	P<0.05	Significant	2.035	1(3.84)	P>0.05	Non significant
5	Specific gender preference	1.71	1(3.84)	P>0.05	Non-significant	0.364	1(3.84)	P>0.05	Non significant
6	Previous history of abortion or miscarriage	2.85	1(3.84)	P>0.05	Non-significant	0.164	1(3.84)	P>0.05	Non significant

The findings in table 8 shows that the p value is less than 0.05 in association with received any information related to pregnancy with fear of childbirth which concludes that there is significant association between information received related to pregnancy and fear of childbirth in the private hospital. The p value is more in rest of the areas; it is proved that there is no association between fear of childbirth with type of family/monthly income/health care system preference/fear of childbirth.

- Private hospital: Significant associations with age, occupation of woman and husband, parity, trimester, and information received (p < 0.05)
- Government hospital: Significant association found only with FOC management strategies (p < 0.05)

#### 4. Discussion

The findings of the study shows that the fear of childbirth was much higher among antenatal women attending antenatal outpatient department of Private hospital (11831) in comparison to that of Government hospital (10989) in terms of overall score, which was found statistically significant as

evident by t value (2.05,  $p < 0.05$ ) at df 318 with the mean difference of 12.77 which was a true difference and not by chance, thus showing a difference in fear of childbirth experienced by antenatal women. It was also noted that in terms of area wise overall score of fear of childbirth questionnaire, antenatal women attending Private hospital scored much higher in fear of childbirth area (fear, negative appraisal, loneliness, lack of self-efficacy, lack of positive anticipation and concern for the child) as compared to antenatal women attending government hospital ( $p < 0.05$ ). Analysis of childbirth related fear revealed that the highest percentage of (39%) antenatal women of government hospital had 'moderate fear' on childbirth, and (76%) of antenatal women from government hospital had mild fear, but this difference was not found statistically significant ( $p > 0.05$ ). This study confirms a high prevalence of fear of childbirth among antenatal women, especially in private hospital settings and among primigravida women. Differences in healthcare infrastructure, perception of care, and access to information may contribute to the higher FOC observed in private hospitals. Childbirth score was much higher among the Primi-gravida women as compared to Multigravida women and fear of childbirth was associated with baseline variables. Through our study finding, a significant association was found between fear of childbirth among antenatal women attending government hospital with strategies for management of fear of childbirth. There were also significant associations found between fear of childbirth among antenatal women attending private hospital with age, occupation of antenatal women and their husbands, reception of any information related to pregnancy and trimester and parity of pregnancy.

The study findings are partially consistent with the findings of the study conducted by SS Adams, M Eberhard-Gran, A Eskilde<sup>12</sup> to assess the association between fear of childbirth and duration of labour where Fear of childbirth was assessed by the Wijma Delivery Expectancy Questionnaire (W-DEQ) version A among 2206 pregnant women and found that Fear of childbirth (W-DEQ sum score  $\geq 85$ ) was present in 7.5% (165) of women. Labour duration was significantly longer in women with fear of childbirth compared with women with no such fear.

The findings were in contrast with the findings of the study conducted by A. Jebarna Kiruba Mary and Fathima Latheef<sup>13,14</sup> with the aim of assessing the level of anxiety related to childbirth among Primi antenatal women in selected Hospitals, Bangalore. Wijma Delivery Expectancy Questionnaire (W-DEQ Version A) was used to assess the level of anxiety related to childbirth and found that majority of antenatal women (73%) had minimal fear of childbirth, 17% had severe fear of childbirth and 7% had moderate fear of childbirth and 3% with mild.

Hannah R<sup>15</sup> conducted a similar study among 37 nulliparous and multiparous women & concluded that nulliparous women had more fear of childbirth than the parous women. F Soltani et al.<sup>16</sup> conducted a study on factors contributing to the fear of childbirth among 335 pregnant women and found relationship between women's fear of childbirth with women's occupation, household income, parity, familiarity with delivery process, and pregnancy cares ( $P < 0.001$ ).

The study findings are contrasting to the study findings of Madiha Mohamed Tosson, Azza Mohamed Elsayed Atwa, Thorea Mohamed Mahmoud<sup>17</sup> who conducted a study on "Anxiety and Fear Level toward Childbirth among on 600 Primigravida versus Multigravida" antenatal women using

Wijma Delivery Expectancy Questionnaires which concluded that majority of the multigravida women experienced high and severe fear toward childbirth as compared to the primigravida women.

The findings were partially in-consistent with the findings of the cross-sectional observational study conducted by Krishna P., Amrit Pattojoshi, Ajay K. Bakhla<sup>18</sup> among 169 pregnant females to study the antenatal anxiety: comparison across trimesters” and concluded that significantly higher anxiety levels were experienced by women in 3<sup>rd</sup> trimester.

The findings were in contrast with the findings of the study conducted by **A. Jebarna Kiruba Mary and Fathima Latheef**<sup>13</sup> with the aim of assessing the level of anxiety related to childbirth among Primi antenatal women in selected Hospitals, Bangalore. Wijma Delivery Expectancy Questionnaire (W-DEQ VersionA) was used to assess the level of anxiety related to childbirth and found throughout the course of pregnancy; higher level of anxiety related to childbirth was reported during their third trimester of pregnancy. Findings suggest the need of the training programme of mind body interventions as an intervention for Primi antenatal women to reduce the anxiety related to childbirth and prevent its consequences.

The study findings were consistent with the findings of the cross-sectional study conducted by **Farzaneh Soltani, Zahra Eskandari, Batoul Khodakarami, Parisa Parsa, Ghodratollah Roshanaei**<sup>10</sup> to determine factors contributing to the fear of childbirth among 335 pregnant women and found the relationship between women’s fear of childbirth and their women’s occupation, household income, parity, familiarity with delivery process, and pregnancy cares. It is necessary for health caregivers to take into consideration the vulnerable groups, especially nulliparous women during pre-pregnancy care as well as the social, and cultural status of women in order to identify the pregnant women exposed to fear of childbirth and reduce the chance of choosing cesarean section by providing appropriate services.

Similar to the findings of the cross-sectional study conducted by **O’ Connel, Patricia Leahy Warren, Louise C. Kenny, Sinead m. O’ Neill, Ali S. Khasan**<sup>19</sup> on “Prevalence and risk factor of fear of childbirth among pregnant women in Ireland on “882 pregnant women using W- DEQ and concluded that high fear of childbirth was associated with low perceived informational support during antenatal period.

## Conclusion

Though there were quite a few similarities between two groups, we found striking differences in the demographic profile, especially in the age of antenatal women, religion, occupation of women, occupation of their husbands, habitat, income per month, and health care systems preferred. Overall fear of childbirth score was seen higher in antenatal women in Private hospital as compared to those of government hospital. Primigravida antenatal women in both the hospitals were found to have more fear of childbirth than multigravida women

## Implication



- **Nursing Research:** Research can help in bringing about new developments that can be helpful in improving obstetrical care outcomes.
- **Clinical practices:** Nurses and nursing students can focus on the areas of fear, level of fears of childbirth, based on which appropriate need-based nursing care can be provided to the antenatal women

#### Recommendations

1. Introduce structured antenatal education programs focused on labour and delivery.
2. Incorporate mental health counselling in antenatal care services.
3. Promote awareness about evidence-based childbirth practices.
4. Conduct regular screening using validated tools like the W-DEQ.

#### Limitations

- Study Excluded the first-trimester pregnancies.
- Focused on two hospitals in East Sikkim, limiting generalizability.
- Self-reporting may introduce bias.

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#### Conflict of Interest

The authors declare no conflicts of interest.

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