

Original Article

# A STUDY ON OCCURRENCE OF SELECTED RISK FACTORS OF PREGNANCY AMONG ANTENATAL WOMEN WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET

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## Abstract :

The descriptive study was conducted to determine the occurrence of selected risk factors of pregnancy among antenatal women. Structured interview schedule was used to assess the risk factors of pregnancy among antenatal women. 150 samples were selected by purposive sampling technique. The study findings revealed that increased maternal age, short stature, increased blood pressure, abortion, decreased hemoglobin and GDM were the most prevalent risk factors in the study sample. There was significant association between gravid state and abortion (cal=26.78, p<0.05), gravid state and age (cal=9.79, p<0.05), education and hemoglobin level (cal=6.02, p<0.05) at 0.05 level of significance.

**Keywords:** risk factors, antenatal women, information booklet

## Introduction:

Pregnancy is a unique, exciting and often joyous time in a woman's life, as it highlights the woman's amazing creative and nurturing powers while providing a bridge to the future. However, a pregnant woman needs to be a responsible woman so as to best support the health of her future child, as the growing fetus depends entirely on its mother's healthy body for all needs<sup>1</sup>. Pregnancy is a natural physiological process but there are certain high risk factors that may come across and complicate the pregnancy and childbirth and often pregnant women are not aware of the seriousness of these problems.

According to WHO, worldwide maternal mortality ratio is estimated to be 400 per 1, 00,000 live births with 5, 36,000 maternal deaths occurring annually and global lifetime risk of death from pregnancy of 1 in 92(2009). In India currently (2010) MMR is

found to be 290 per 1, 00,000 live births. Identification of the risk factors together with appropriate and timely interventions during the perinatal period can prevent morbidity and mortality among mothers and infants to a great extent. For health professionals maternal mortality is not statistics, not rates or ratios but it is women whose faces are seen in the throes of agony, distress and despair, and this is not simply because these women die in the prime of their lives, at a time of great expectation and joy or not because maternal death is one of the most terrible ways to die, be it bleeding to death, the convulsions of toxemia of pregnancy, the unbearable pangs of obstructed labour or the agony of puerperal sepsis. It is because in almost each and every case, it is a 5 event that could have been prevented. So the investigator feels that nurses are responsible and accountable for early identification of risk factors and also imparting health education to gravid mothers for prevention of this enduring epidemic.

## Objectives of the Study

∞ To determine the occurrence of selected risk factors of

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pregnancy among antenatal women.

- ∞ To develop an information booklet on selected risk factors of pregnancy
- ∞ To find the association of selected risk factors of pregnancy among
- ∞ antenatal women with selected demographic variables

### Materials and Methods:

The study adopted a survey approach with a descriptive design and was conducted in Justice K.S Hegde Charitable Hospital Mangalore from 16/8/11 to 25/9/11. For the study 150 antenatal women were selected through purposive sampling technique. An informed consent was taken from all subjects and data were collected by structured interview schedule on selected risk factors of pregnancy. The selected risk factors were categorised into biophysical factors, psychosocial factors and environmental factors. Biophysical factors includes age, height, various medical disorders and obstetrical factors. Psychosocial factors includes history of psychiatric disorders, smoking or alcohol, access to health care facilities, support from family or spouse. Environmental factors includes exposure to radiation, pesticides or industrial pollutants. The data was analysed using descriptive and inferential statistics.

### Results :

Major findings are discussed under the following headings

### Section 1: Description of sample characteristics n=150

SL. NO	DEMOGRAPHIC VARIABLE	FREQUENCY (f)	PERCENTAGE (%)
<b>1</b>	<b>Age of the mother</b>		
a	18-23yrs	40	26.7
b	24-29yrs	76	50.6
c	30-35 yrs	28	18.7
d	36-41 yrs	6	4
<b>2</b>	<b>Educational status</b>		
a	No formal education	24	16
b	Primary education(1-7)	56	37.3
c	High school(8-10)	45	30
d	PUC	13	8.7
e	Graduate level and above	12	8
<b>3</b>	<b>Religion</b>		
a	Hindu	87	58
b	Muslim	46	30.7
c	Christian	17	11.3
<b>4</b>	<b>Average monthly income</b>		
a	<5000/-	74	49.3
b	5000-10000/-	45	30
c	>10000/-	31	27
<b>5</b>	<b>Occupation</b>		
a	Working woman	52	34.7
b	Non-working woman	98	65.3
<b>6</b>	<b>Type of the family</b>		
A	Joint family	77	51.4
B	Nuclear family	73	48.6
<b>7</b>	<b>Gravida</b>		
A	Primigravida	72	48
B	Multigravida	70	46.7
C	Grandmultipara	8	5.3
<b>8</b>	<b>Mode of delivery</b>		
A	Vaginal delivery	52	71.24
B	Caesarean delivery	21	28.76
<b>9</b>	<b>Gestational weeks</b>		
A	<12 weeks	19	12.6
B	13-28	50	32.7
C	29-40	81	54.7

### Section 2: Occurrence of selected risk factors of pregnancy Frequency and percentage distribution of risk factors

RISK STATUS	RISK FACTORS	FREQUENCY	PERCENTAGE
<b>BIOPHYSICAL RISK FACTORS</b>			
<b>Age</b>			
No Risk	1. 19-29 yrs	116	77.3
At Risk	2. 30 -35 yrs	28	18.7
	3. <19 or >35 yrs	6	4
<b>Height</b>			
No Risk	1. >150 cm	126	84
At Risk	2. 145-150 cm	20	13.3
	3. <145 cm	4	2.7

RISK STATUS	RISK FACTORS	FREQUENCY	PERCENTAGE
<b>Present pregnancy gestation</b>			
No Risk	1. Single	146	96.7
At Risk	2. Twins	4	2.7
	3. Triplets and above	0	0
<b>Pulmonary disease</b>			
No risk	1. No history of pulmonary disease	143	95.4
At risk	2. Previous history of pulmonary disease but treated	5	3.3
	3. Present history of pulmonary disease and on treatment	2	1.4
<b>Cardiac disease</b>			
No risk	1. No history of cardiac disease	146	97.3
At risk	2. Cardiac disease present and treated	3	2
	3. cardiac disease present and not treated	1	.7
<b>Blood pressure</b>			
No risk	1. 120 /80 mm of Hg	131	87.3
At risk	2. >120/80 but< 140/90 mm of Hg	9	6
	3. >140/90 mm of Hg	10	6.7
<b>Family history of blood pressure</b>			
No risk	1. No family history of hypertension or pregnancy induced hypertension	110	73.3
At risk	2. Family history of hypertension	35	23.3
	3. Family history of pregnancy induced hypertension	5	3.4
<b>Random blood sugar level</b>			
No risk	1. 80-119 mg/dl	130	86.7
At risk	2. 120-200 mg/dl	17	11.3
	3. >200 mg/dl	3	2
<b>Diabetes</b>			
No risk	1. No history of diabetes	137	91.3
At risk	2. Diabetes under control	11	7.3
	3. Diabetes not under control	2	1.3
<b>Family history of diabetes mellitus or previous overweight baby</b>			
No risk	1. No family history of diabetes mellitus or previous overweight baby	127	84.7
At risk	2. Family history of diabetes mellitus	20	13.3
	3. Both family history of diabetes mellitus and overweight baby	3	2
<b>Renal disease</b>			
No risk	1. No history of any renal disease	145	96.7
At risk	2. .Previous history of renal disease but treated	5	3.3
	3. Present history of renal disease and on treatment	0	0
<b>Fibroids</b>			
No risk	1. No history of uterine fibroids	144	96
At risk	2. History of asymptomatic fibroids	4	2.7
	3. History of symptomatic fibroids	2	1.3
<b>Hemoglobin concentration</b>			
No risk	1. >10 gm/dl	129	86
At risk	2. 7-10gm/dl	18	12
	3. <7 gm/dl	3	2
<b>Abortions</b>			
No risk	1. No abortions	120	80
At risk	2. 1-2 abortions	27	18
	3. >2 abortions	3	2
<b>Vaginal bleeding</b>			
No risk	1. No vaginal bleeding	142	94.7
At risk	2. Mild bleeding but controlled	6	4
	3. Severe bleeding treated with blood transfusion	2	1.3

RISK STATUS	RISK FACTORS	FREQUENCY	PERCENTAGE
<b>Infectious disease</b>			
No risk	1. No history of any infectious disease	148	98.7
At risk	2. Previous History of infectious disease and treated	2	1.3
	3. Present history of infectious disease on treatment	0	0
<b>Seizures</b>			
No risk	1. No history of seizures	146	97.3
At risk	2. Seizures but controlled	4	2.7
	3. Seizures but not controlled	0	0
<b>Hypothyroidism or hyperthyroidism</b>			
No risk	1. No history of hypothyroidism or hyperthyroidism	146	97.3
At risk	2. hypothyroidism or hyperthyroidism but under control	4	2.7
	3. Not under control	0	0
<b>Pregnancy related complications or inherited disorders</b>			
No risk	1. No family history of inherited disorders or pregnancy related complications	143	95.3
At risk	2. Family history of inherited disorders or pregnancy related complications	6	4
	3. Family history of both inherited disorders and pregnancy related complications	1	.7
<b>Antenatal visit</b>			
No risk	1. Regular antenatal visit	143	95.3
At risk	2. Minimum one antenatal visit per trimester	7	4.7
	3. No antenatal visit	0	0
<b>PSYCHOSOCIAL FACTORS</b>			
<b>Psychiatric disorders</b>			
No risk	1. No history of psychiatric disorders	145	96.7
At risk	2. History of psychiatric disorders but treated	4	2.7
	3. History of psychiatric disorders but not treated	1	.7
<b>Smoking or alcohol</b>			
No risk	1. No smoking or alcohol	0	0
At risk	2. Smoking or alcohol	0	0
	3. Smoking and alcohol		
<b>Access to health care facilities</b>			
No risk	1. Adequate access to health care facilities(within 1 km)	140	96.3
At risk	2. Limited access to health care facilities (less than or equal to 5km)	7	4.7
	3. Very limited access to health care facilities(more than 5 km)	3	2
<b>Family support</b>			
No risk	1. Good family support	145	96.7
At risk	2. Support from spouse or family only	5	3.3
	3. No support from family and spouse	0	0
<b>ENVIRONMENTAL FACTORS</b>			
<b>Radiation or pesticides</b>			
No risk	1. No exposure to radiation or pesticides	146	97.3
At risk	2. Exposure to radiation or pesticides	4	2.7
	3. Exposure to radiation and pesticides	0	0
<b>Industrial pollutants</b>			
No risk	1. No exposure to any industrial pollutants	147	98
At risk	2. Limited Exposure to industrial pollutants	3	2
	3. Exposure to industrial pollutants	0	0

### Discussion :

The study findings revealed that increased maternal age, short stature, increased blood pressure, abortion, decreased hemoglobin and GDM were the most prevalent risk factors in the study sample. Considering increased

maternal age as a risk factor similar findings were reported in a retrospective study conducted in four tertiary care hospitals at USA between 2000 and 2005 .The study identified seventy-nine cases among 126,500 births and revealed that thirty seven (46.8%) had obstetric

complications during pregnancy; the most frequent complications were gestational diabetes (12.7%) and preeclampsia (10.1%)<sup>2</sup>. The finding of short stature as a risk is congruent with a population-based study performed in Israel during 2000–2004. The study revealed that of 159,210 deliveries occurred, 5822 (3.65%) were of patients with short stature. Patients with short stature had statistically significant higher rates of CS compared with patient's  $\geq 155$ cm (21.3% versus 11.9%). Higher rates of intrauterine growth restriction (3.2% versus 1.9%), premature rupture of membranes (7.1% versus 5.6%), labor dystocia (6.1% versus 3.5%), mal-presentations (7.6%

versus 6.1%), and cephalopelvic disproportion (0.9% versus 0.3%)<sup>13</sup> was also found<sup>3</sup>.

#### **Conclusion :**

The goal of maternity care is healthy pregnancy with a physically safe and emotionally satisfying outcome for mother, infant and family. The study findings revealed that women are at risk for the pregnancy. Although health information alone is insufficient to change behaviors, it may contribute to more informed decisions which necessitates the health professionals to be responsible to educate the women regarding the risk factors of pregnancy thus to attain the goal of maternity care

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