



A STUDY ON FREQUENCY OF HIGH RISK PREGNANCY AMONG THE WOMEN WITH A VIEW TO DEVELOP A PROTOCOL ON NURSING MANAGEMENT OF HIGH RISK PREGNANCY IN SELECTED HOSPITAL AT MANGALURU

Sr Litty Stephen

Msc Obstetrics and Gynaecological Nursing, Father Muller College Of Nursing, Mangaluru-575002

**Dr. Savitha
Pramilda Cutinho**

Professor and HOD Dept.of Obstetrics and Gynaecological Nursing, Father Muller College Of Nursing, Mangaluru-575002

ABSTRACT A descriptive cross sectional study was carried out among 369 antenatal women who were recruited by purposive sampling technique. The purpose of the study was to identify the frequency of high risk pregnancy among the women in a selected hospital and to develop and validate a protocol on nursing management of high risk pregnancy by using high risk pregnancy assessment proforma. The highest risk cases were Gestational Diabetes Mellitus (52%) and second highest was women with Pregnancy Induced Hypertension (35%). Based on the result prepared a management protocol on Gestational Diabetes Mellitus and Pregnancy Induced Hypertension that is administered to practice. The incidence of GDM and PIH is increasing. The health care professionals need to create awareness among young women on life style modifications and pre conception counseling to be mandatory in all the maternity health care institution to reduce the morbidity and mortality.

KEYWORDS : Frequency, High risk pregnancy, Protocol.

INTRODUCTION

Pregnancy is a stress that may unmask a variety of medical conditions including Pregnancy Induced Hypertension (PIH), pre-eclampsia, metabolic syndrome, Gestational Diabetes Mellitus (GDM), anaemia, thyroid disorders and ischemic heart disease etc. Pregnancy is often associated with physiological alterations that, in other circumstances would be considered pathologic (Anderson C M., 2007).

Every minute of every day, somewhere in the world and most often in developing countries, a woman dies from complication related to pregnancy (WHO World health statistics. 2014). It is stated that 70% of all maternal deaths are caused by the factors like haemorrhage (24%), infection (15%), unsafe abortion (13%), high blood pressure (12%) and obstructed labour (8%) (Garg BS et al., 2016).

A survey was conducted to assess the risk factors during pregnancy. Research studies showed that 17% to 39% of pregnancy is associated with an increased risk of spontaneous abortion, placental abruption, feto-maternal transfusing and still birth (Gupton A et al., 1997).

The frequencies of high risk cases are increasing day by day (Devi S K & Kumar., 2015) early detection and proper screening will reduce the maternal and fetal mortality. High risk assessment is the measuring scale will act as a preventive measure in reducing the high risk complications. This was the motivating factor for the investigator to assess the frequency of high risk pregnancy and it is the need of the time.

Objectives

1. To identify the frequency of high risk pregnancy among the women in a selected hospital
2. To develop and validate a protocol on nursing management of high risk pregnancy.

Materials and methods

A descriptive cross sectional study was conducted in Obstetrics and Gynaecology Out Patient Department of Father Muller Medical College Hospital (FMMCH), Kankanady, Mangaluru from 1st March to 31st March 2017. Following approval from the hospital Ethics Committee, informed consent was taken from antenatal patients for taking part in the assessment. The sample sizes comprised of 369 antenatal women and were selected by using Purposive Sampling Technique.

The frequency of high risk pregnancy was assessed by using High Risk Pregnancy Assessment Proforma had two parts including Baseline Proforma of women and High risk pregnancy assessment proforma under six domains. Items were scored 10, 5, & 1 respectively. The score of ≥ 10 indicate high risk and score of ≤ 9 indicate low risk pregnancy. The high risk pregnancy assessment proforma was used to

assess the women which consisted of 39 items. The collected data was compiled for analysis.

RESULTS

Section I: Base line characteristics

Among 369 antenatal women 120 of them in the age group of 18 – 23 years (32%), 174 were in the age group of 24 – 29 years (47%), 65 were in the age group of 30- 34 (22%) and above 35 yrs were 10 (3%).

Among the antenatal women majority 140 were primi mothers (38%), 224 women were multi parous mothers (61%) and five were grand multi parous mother (1%).

The most of the women had height ranged between 153- 158 (42%) equal number of women had 147- 153 height (95, 26%) and 159- 164 (95, 26%) and few had above 165 and above (27, 6%).

The antenatal women's weight ranged from 50- 65 kg (49%), 66- 81(38%), 82- 95 kg (8%) respectively and few had weighted < 49 kg (5%).

The majority of the antenatal women's Blood Pressure ranged from 110/70 – 130/80 mm of Hg (84%) 140/90- 150/100 mm of Hg (12%), >110/70 mm of hg (2%), and 160/100 mm of Hg and above (2%).

Section II: Frequency of risk cases of antenatal women

This section deals with the assessment of frequencies of risk cases of among the women attended OBG OPD. Among 369 antenatal women 129 women were risk cases (35%) and 240 women were non risk cases (65%).

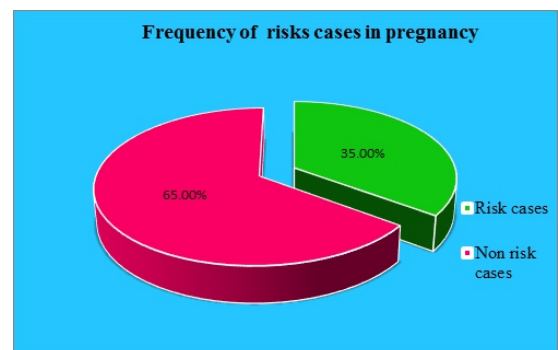


Figure 1: Frequency of high risk pregnancy among the antenatal women

The risk cases were further categorized based on the score obtained.

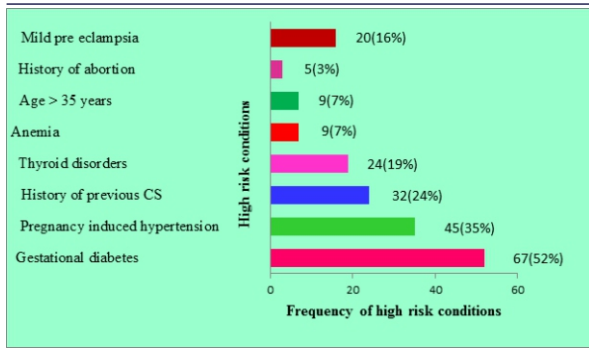


Figure 2: Frequency and percentage distribution of subjects according to their high risk conditions

Section II.A: Grading of risk cases

The risk cases were graded as 'High Risk' and 'Low Risk' based on the score.

Among 129 risk cases (antenatal women) the 32 women in the low risk category (25%) and 97 women were in the high risk category (75%).

Section II. B Categories of high risk pregnancies

Table1. Categories of high risk pregnancies n = 129

SL No	Types of High Cases		Percentage (%)
1	Insulin dependent diabetes with mild Pre eclampsia	39	31
2	Previous Caesarean section with Gestational Diabetes Mellitus	37	29
3	Mild pre eclampsia with previous Caesarean section	15	12
4	GDM with thyroid disorders	10	8
5	Age > 35 with anemia	8	6
6	Moderate pre eclampsia with thyroid disorders	7	5
7	Mild pre eclampsia with GDM	4	3
8	Caesarean section with history of abortion	4	3
9	Insulin dependent DM with thyroid disorders	3	2
10	Caesarean section with thyroid disorders	2	1

Discussion

The present study is aimed to assess the frequency of high risk pregnancy among the women with a view to develop a protocol on nursing management of high risk pregnancy in a selected hospital Mangaluru. The findings of the present study are discussed with reference to the objectives and findings of the study.

The study samples in the present study consisted of 369 women attending in OBG OPD. Out of these subjects 47% belonged to the age group of 24 – 29 years, 32% were in the age group of 18 – 23 years, and 22% were in the age group of 30- 34 and more than the age of 35 are 3%.

The findings of the current study consistent with the results of a cohort study on prevalence of anemia among pregnant women. Almost all the subject belongs to the age group of 24 – 29 years (49 %) and the prevalence of anemia was 38.2% and mean haemoglobin level was 8.3 mg/dl (Belachew T & Legesse Y., 2006).

These findings were similar to a case control study to assess the risk factors of anaemia, where the women with age < 20 were 35% and age > 35 years were 38%. In the present study women with age between 18-23 were 32% and age > 35 were 3%. Age was found to be a contributing factor of high risk pregnancies (Crowther, C.A., 2005)

In the present study the assessment of frequency of high risk women were performed by using high risk assessment proforma. Among 369 antenatal women 129 women were identified as risk cases (35%) and

240 women were non risk cases (65%). The frequency of risk cases are GDM (51.9%) and second highest risk case is PIH (34.8%). History of previous caesarean section was (24.8%), thyroid disorders (18.6%), anaemia (6.9%), age >35 years (6.9%), history of abortion (3.1%) and mild pre eclampsia (15.5%).

These findings were consistent with the study conducted in SAT hospital Kerala among the women attending the antenatal clinic with gestation of 24 to 28 weeks. The plasma glucose level >160 mg/dl GDM was 46%. PIH was (36%). It is also congruent with another study where 33.3% were detected with hypertensive disorders of pregnancy and 96% were cases of pre eclampsia / eclampsia or transient hypertension which is relatively high during pregnancy (Mehta B et al. , 2013).27

The current study subjects were scored as high risk and low risks. The score ≤ 9 were identified as low risks and score ≥ 10 were identified as high risks. Among 129 risk cases 32 women were low risk pregnancy (25%) and 97 women were at high risk (75%).

These findings are consistent with the study conducted to assess the risk status of pregnant women presenting for antenatal care in a rural health facility. The sample comprised of 208 pregnant women. The scoring system was used to assess the high risk pregnancy. The 26% had a high risk pregnancy while about a tenth 9.1% had very high risk pregnancy. Thus the present study findings and supporting literature proves that risk in pregnancy is high (Benjamin A I et al., 2009).

Conclusion

The present study attempted to assess the frequency of high risk pregnancy among the women in selected hospital at Mangaluru. The study concludes that among the identified risk cases the women belonging to ‘high risk’ category were with highest frequency than the ‘low risk’ category. The first highest high risk conditions complicating to pregnancy was GDM and second highest high risk conditions complicating to pregnancy was PIH. The pregnancy associated with GDM and PIH increasing the pregnancy risks and affecting the maternal out come. The development protocol on obstetrical and nursing management of high risk pregnancy will reduce the complications in pregnancy and labour. Thus improve the maternal and foetal outcome.

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