



## ASSESSMENT OF KNOWLEDGE REGARDING RISK OF GESTATIONAL DIABETES MELLITUS AMONG ANC MOTHERS ATTENDING ANC CLINICS AT SELECTED HOSPITALS.

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**ABSTRACT**

**Background:** Gestational diabetes mellitus the most common medical complication of pregnancy, is defined as carbohydrate intolerance of variable degree, with an onset or first recognition occurring during pregnancy.<sup>1</sup> GDM is associated with both maternal and neonatal complication<sup>1</sup>. It happens when the hormones made by the placenta during pregnancy make it harder for insulin to work. Insulin is a hormone that helps process food and keeps blood glucose level stable. Can not enough insulin in the blood the glucose levels will rise. High blood glucose levels can cause the risk of fetal macrosomia. Neonatal hypoglycemia, jaundice, polycythemia, and hypocalcemia and women with gestational diabetes exhibit no symptoms but some women may demonstrate increased thirst, increased urination, fatigue, nausea and vomiting, bladder infection, yeast infections and blurred vision.<sup>2</sup>

**1.Objectives of the study:** To assess the knowledge of ANC mother regarding risk of gestational diabetes mellitus.2.To find the association between knowledge regarding risk of gestational diabetes mellitus among ANC mothers with their selected demographic variables. **Materials and Methods:** 100 samples were selected from ANC Clinic in selected hospitals of Maharashtra by Non probability convenient sampling technique. Research Design descriptive survey was used. **Result:** 22% of ANC mothers had poor, 71% had average and only 7% of them had good level of knowledge score. Mean knowledge score of ANC mothers was  $7.12 \pm 2.38$  with percentage of knowledge score was  $35.60 \pm 11.91$ . Education and gravida were found to be associated with knowledge of antenatal mothers. none of the other variable were found significantly related with the knowledge of antenatal mothers. **Conclusion-** Gestational diabetes mellitus the most common medical complication of pregnancy, The main aim of the study was Asses the Knowledge Regarding Risk Of Gestational Diabetes Mellitus Among antenatal Mothers . where there are vulnerable groups and underprivileged populations.and they have needs intervention through educational programme and handouts.

**KEYWORDS :** Gestational Diabetes Mellitus Antenatal mother, Macrosomia, and Blurred vision.

**INTRODUCTION** For more than a century, it has been known that diabetes antedating pregnancy can have severe adverse effects on fetal and neonatal outcome. As early as in the 1940s, it was recognized that women who developed diabetes years after pregnancy had experienced abnormally high fetal and neonatal mortality. By the 1950s the term “gestational diabetes” was applied to what was thought to be a transient condition that affected fetal outcomes adversely, then abated after delivery .In the 1980s those cut-off points were adapted to modern methods for measuring glucose and applied to the modern definition of gestational diabetes — glucose intolerance with onset or first recognition during pregnancy.<sup>1</sup> Gestational diabetes (or gestational diabetes mellitus, GDM) is a condition in which women without previously diagnosed diabetes exhibit high blood glucose levels during pregnancy. Gestational diabetes mellitus (GDM) can also be defined as any degree of glucose intolerance with onset or first recognition during pregnancy.<sup>2</sup> There are 2 subtypes of gestational diabetes (diabetes which began during pregnancy): Type A1: abnormal oral glucose tolerance test (OGTT) but normal blood glucose levels during fasting and 2 hours after meals; diet modification is sufficient to control glucose levels Type A2: abnormal OGTT compounded by abnormal glucose levels during fasting and/or after meals; additional therapy with insulin or other medications is required.<sup>3</sup>

The presence of fasting hyperglycemia ( $>105$  mg/dl or  $>5.8$  mmol/l) may be associated with an increase in the risk of intrauterine fetal death during the last 4–8 weeks of gestation. Although uncomplicated GDM with less severe fasting hyperglycemia has not been associated with increased perinatal mortality, GDM of any severity increases the risk of fetal macrosomia. Neonatal hypoglycemia, jaundice, polycythemia, and hypocalcemia may complicate GDM as well. Typically women with gestational diabetes exhibit no symptoms but some women may demonstrate increased thirst, increased urination, fatigue, nausea and vomiting, bladder infection, yeast infections and blurred vision.<sup>4</sup>

**MATERIALS AND METHODS:**

Descriptive approach was used and Inclusion Criteria were all antenatal mothers who are willing to participate in the study. Those

who were available at the time of data collection. Exclusion Criteria was those who were having mentally ill. 100 samples participated in the study.

**RESULTS**

**Table: 1 Distribution of antenatal mothers with regards to demographic variables.**

Demographic Variables	No. of ANC Mothers	Percentage(%)
n=100		
<b>Age in years</b>		
19-22 yrs	20	20.0
23-26 yrs	35	35.0
27-30 yrs	24	24.0
31 yrs and above	21	21.0
<b>Religion</b>		
Hindu	61	61.0
Buddhist	21	21.0
Muslim	4	4.0
Others	14	14.0
<b>Type of diet</b>		
Vegetarian	35	35.0
Non Vegetarian	65	65.0
<b>Educational status of mother</b>		
Primary	3	3.0
Secondary	24	24.0
Graduate	61	61.0
Post Graduate	12	12.0
<b>Type of family</b>		
Nuclear	31	31.0
Joint	55	55.0
Extended	14	14.0
<b>Gravida</b>		
Primigravida	60	60
Multigravida	40	40
<b>Miscarriage</b>		
Yes	22	22
No	78	78

Distribution of ANC mothers according to their age in years shows that 20% of them were belonging to the age group of 19-22 years, 35% in 23-26 years, 24% in 27-30 years and 21% of ANC mothers were belonging to 31 years and above respectively.

According to their religion reveals that 61% of them were hindus, 21% were buddhist, 4% were muslim and 14% of them were belonging to other religion.

According to their type of diet shows that 35% of them were consuming vegetarian diet and 65% were using non vegetarian diet respectively.

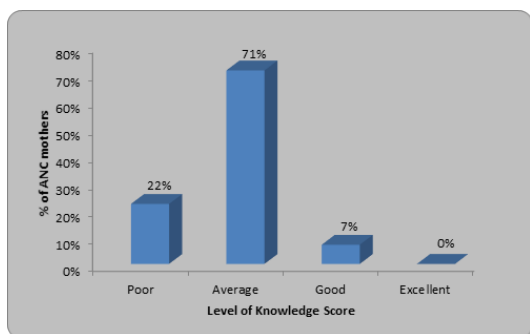
Distribution of ANC mothers according to their educational status shows that 3% of them were educated upto primary, 24% upto secondary, 61% upto graduation and 12% of them were postgraduates.

According to their type of family shows that 31% of them were belonging to nuclear families, 55% in joint and 14% were belonging to extended families respectively.

60% of the ANC mothers were primigravidas and 40% were multigravidas.

Distribution of ANC mothers according to their miscarriage shows that 22% of them had miscarriage and 78% need not have any type of miscarriage respectively.

n=100



**Graph 1: Distribution of ANC mothers with regards to knowledge regarding risk of gestational diabetes mellitus**

The above Graph shows the frequency and percentage wise distribution of ANC mothers attending ANC clinics at selected hospitals according to level of knowledge regarding risk of gestational diabetes mellitus. The levels of knowledge were seen into 4 categories, poor, average, good and excellent. 22% of ANC mothers had poor, 71% had average and only 7% of them had good level of knowledge score. Mean knowledge score of ANC mothers was  $7.12 \pm 2.38$  with percentage of knowledge score was  $35.60 \pm 11.91$ .

**DISCUSSION** Present study conducted in rural area of Wardha and subject was selected through non-probability convenient sampling technique. The tool for data collection was structural knowledge questionnaire. Mean knowledge score of ANC mothers was  $7.12 \pm 2.38$  with percentage of knowledge score was  $35.60 \pm 11.91$ . Education and gravida were found to be associated with knowledge of antenatal mothers. none of the other variable were found significantly related with the knowledge of antenatal mothers.

A study was conducted on (2009) conducted on "Diabetes and pregnancy: women's opinions about the care provided during the childbearing year." The extended programmes for pregnant women with diabetes, needed to improve pregnancy outcome, might negatively influence the experience of expecting a baby. To investigate opinions about care during pregnancy, childbirth and

the postnatal period among women with diabetes mellitus (DM) and gestational DM (GDM). A four-part questionnaire was constructed, covering the childbearing year, with a focus on treatment and information. A total of 156 women were asked to participate. The questionnaire was anonymous. The reply frequency was 94%. Comments showed focus on diabetes, forcing the healthy pregnancy aspects into the background. The answers concerning treatment indicated satisfaction. Women with GDM felt badly prepared before the glucose tolerance test. Lack of knowledge among staff was pointed out. Need for more written material was expressed. Satisfaction with care was shown. A discussion about the implication of informed choice with both staff and mothers are needed. Sharper implementation of the diabetes-care-chain was also an area for improvement.<sup>5</sup>

A study was conducted on (2009) on "Treatments for gestational diabetes" was conducted. It was found that Gestational diabetes (GDM) affects 3% to 6% of all pregnancies. Women are often intensively managed with increased obstetric monitoring, dietary regulation, and insulin. To compare the effect of alternative treatment policies for GDM on both maternal and infant outcomes. Eight randomized controlled trials (1418 women) were included. Caesarean section rate was not significantly different when comparing any specific treatment with routine antenatal care (ANC) including data from five trials with 1255 participants. There was a reduction in the risk of pre-eclampsia with intensive treatment (including dietary advice and insulin) compared to routine ANC. ore women had their labour induced when given specific treatment compared to routine ANC. There was a reduction in the proportion of infants weighing more than 4000 grams and the proportion of infants weighing greater than the 90th birth centile of mothers receiving specific treatment for GDM compared to routine ANC. However, there was no statistically significant difference in this proportion between infants of mothers receiving oral drugs compared to insulin as treatment for GDM. Specific treatment including dietary advice and insulin for mild GDM reduces the risk of maternal and perinatal morbidity.<sup>6</sup>

**NURSING IMPLICATION**

**Nursing administration**

The administrators of the hospital, primary health centers and sub centers can formulate the policy of educating community member regarding Risk of Gestational Diabetes to improve the health of the mothers and prevent complication of Risk of Gestational Diabetes. Nurse administrators are the key persons to plan, organize and conduct in-service education programmes. Nurse administrator's support should be necessary to conduct and evaluate health education programmes. They can help to improve the knowledge of the staff nurses working in obstetrics and gynecology department by providing various teaching programmes with the help of various AV aids. They are in a key position to organize, implement and evaluate educative programme which will in turn help to improve the knowledge as well as to meet the future needs and accelerate the standards of health services.

**Nursing research**

The main goal of the nursing research is to improve the knowledge of staff nurses through the implementation of evidence based practice. The study provides a baseline data for conducting other research studies. The study will be a motivation for the budding researchers to conduct similar studies in large scale. The study will be a reference for the research scholars. Further research work can be conducted with every medical condition to identify most effective knowledge imparting strategies.

**RECOMMENDATIONS**

A similar study can be replicated on large scale to generalize the findings. A similar study can be conducted by using video assisted teaching. A similar study can be conducted to find the knowledge level of the nursing students.

A similar study can be conducted in community area

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