A STUDY TO ASSESS THE KNOWLEDGE AND SELF-CARE
PRACTICES ON GESTATIONAL DIABETES MELLITUS AMONG
ANTENATAL WOMEN

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Abstract

Gestational Diabetes Mellitus is a public health concern and one of the causes of maternal and fetal mortality and morbidity. Gestational diabetes is one of the most common health issues that can occur during pregnancy. It happens when the mother is first diagnosed with diabetes during the pregnancy. The minimizing factors for gestational diabetes are adequate knowledge about the condition for early detection and treatment; healthy practices on diet and physical activity. Awareness of the condition among antenatal women will translate into adoption of a healthy lifestyle, better health-seeking pattern, better self-care practice, which prevent acute complications and reduce the risk of long-term complications and promote pregnancy outcome.

Keywords: Gestation, Diabetes Mellitus, Antenatal Mothers, knowledge, self-care practice.

INTRODUCTION AND BACKGROUND

Pregnancy is a unique period that entails substantial physiological and psychological adjustment for the mother. During pregnancy, lots of metabolic and hormonal changes take place. Although pregnancy is not a disease but a normal physiological state, it is associated with certain risks to health and survival both for the women and the fetus. Gestational Diabetes is one of the most common health issues that can occur during pregnancy. It happens when the mother is first diagnosed with diabetes during the pregnancy. Diabetes mellitus is a metabolic disorder that affects carbohydrates, fats, and protein metabolism. Gestational Diabetes Mellitus is considered to be a typical condition of glucose intolerance in which a woman previously undiagnosed with diabetes exhibits high level of blood glucose during the 3rd trimester of pregnancy. The key to minimizing the effect of gestational diabetes is diagnosing it early through the use of an Oral Glucose Tolerance Test. A diagnosis of Gestational Diabetes Mellitus puts a pregnant woman into the high-risk category. If Gestational Diabetes is not diagnosed correctly, it can lead to macrosomia in the baby (abnormally large fetal size). A history of gestational diabetes mellitus can be the sturdiest risk factors concerning the development of type 2 diabetes mellitus. Among women who have a history of gestational diabetes mellitus, the risk of developing classical type 2 diabetes usually ranges from 20-50%.
With an estimated 50.8 million people living with diabetes, India has the largest diabetes population in the world and has the dubious distinction of being the diabetes prevalence of which is constantly increasing. After delivery, though the glucose levels return to normalcy, the mother is at a higher risk for type 2 DM, and the child of the women with Gestational Diabetes Mellitus is at a higher risk for metabolic syndrome.

The precise mechanisms underlying gestational diabetes remain unknown. The hallmark of GDM is increased insulin resistance. Pregnancy hormones and other factors are thought to interfere with the action of insulin as it binds to the insulin receptor. The interference probably occurs at the level of the cell signaling pathway beyond the insulin receptor. Since insulin promotes the entry of glucose into most cells, insulin resistance prevents glucose from entering the cells properly. As a result, glucose remains in the bloodstream, where glucose levels rise. More hypoglycemic agent is required to beat this resistance; concerning 1.5 to 2.5 times additional hypoglycemic agent is created than in an exceedingly traditional physiological state. The main cause and risk factor of Gestational Diabetes Mellitus are age above 25 years, pre-gestational obesity or excessive weight gain during pregnancy, family history of diabetes, personal history of poor obstetric out comes such as polyhydramnios, macrosomia, pre-eclampsia, fetal malformation of an ethnic group with a high risk prevalence of diabetes and history of diabetes mellitus in previous pregnancy.

Knowledge is an important component of health literacy. Studies show that inadequate knowledge about the disease leads to poor understanding medical information. This leads to limited adherence to management strategies and ultimately unfavorable pregnancy outcome. In the Indian context, several cultural factors also play a very important role in health seeking behaviour, especially amongst pregnant women.

Gestational Diabetes leads to maternal, fetal and neonatal complications as pre-eclampsia, polyhydramnios, pre-term labour, fetal malformation, macrosomia, hypoglycemia, hyperbilirubinemia, respiratory distress syndrome and perinatal mortality. Furthermore, in later life, other complications may develop and effect both women and their infants as obesity, type 2 Diabetes mellitus, heart disease and Neuropsychological women.

**MATERIALS AND METHOD**

The chapter explains the methodology adopted by the researcher to assess the knowledge and self-care practices on Gestational Diabetes mellitus among antenatal women in Chettinad hospital and research institute, Kelambakkam, Tamilnadu. It deals with the research approach, research design, setting of the study, population, sample and sample size, sampling technique, criteria for the selection of sample, data collection procedure, description of tool for data collection, plan for

**RESEARCH APPROACH**

The researcher adopted a quantitative approach

**RESEARCH DESIGN:** A Descriptive study

**RESEARCH SETTING:**

Chettinad Hospital and Research Institute, Kelambakkam

**POPULATION:**

Antenatal Mothers with Gestational Diabetes Mellitus

**SAMPLE:**

60 Antenatal Women

**SAMPLE SIZE:**

FORMULA,

\[ n = \frac{z^2 p(1-p)}{d^2} + p(1-p) \]

Where,

- \( n = 60 \) Antenatal women
- \( d/2 = \) confidence interval
- \( p1 = \) Estimated proportion
- \( d = \) Desired precision

**SAMPLE TECHNIQUE**

Convenience Sampling techniques was used in the study

**FINDINGS**

Objectives 1: To assess the knowledge and self-care Practices on Gestational Diabetes Mellitus among Antenatal Women.

From the findings it shows that majority (85 %) of the antenatal mother has average knowledge where as (15 %) of the antenatal mother has poor knowledge on gestational
diabetics and majority (60%) of the antenatal mothers has average practice whereas the (40%) of the antenatal mothers has good practice on gestational diabetics.

**Objectives 2:** To identify the relationship between knowledge and self-care practices on Gestational Diabetes Mellitus among Antenatal Women.

From the findings it shows that the correlation between the level of knowledge and practice score shows that the $r=-0.038$, it shows that there is negative correlation between level of knowledge and practice. Hence there $H_1$ is strongly rejected.

**Objectives 3:** To identify the association of knowledge on Gestational Diabetes Mellitus with selected socio-demographic variables among Antenatal Women.

From the findings it shows that there is no significant association between level of knowledge on gestational diabetic mellitus with selected socio-demographic variables among antenatal mothers.

**Objectives 4:** To identify the association of self-care practices on Gestational Diabetes Mellitus with selected socio-demographic variables among Antenatal Women.

From the findings it shows that there is no significant association between level of self-care practice on gestational diabetic mellitus with selected socio-demographic variables among antenatal mothers.

**DISCUSSION:**
The study intends to assess the knowledge and self-care practices on gestational diabetes mellitus among antenatal women, in order to achieve the objectives of the study, Descriptive research design was adopted. Purposive sampling techniques was used to select the samples. Data was collected from 60 antenatal women by using self-structured practice and knowledge questionnaire. Data gathered was analyzed by using descriptive and inferential statistics.

**CONCLUSION:**
The present study assessed the knowledge and self-care practices on Gestational Diabetes Mellitus among Antenatal Women. The results showed that (85%) of Antenatal Women have average knowledge and (60%) of Antenatal Women had average self-care practice on Gestational Diabetes Mellitus. A negative correlation was found between knowledge and practice which is not statistically significant at $p > 0.05$ level of significance.

**CONFLICT OF INTEREST:** NIL

**SOURCE OF FUNDING:** SELF

**ETHICAL CLEARANCE:**
The research was conducted according to established guidelines (Paules 2007). The UG committee clearance and institutional ethical committee clearance was obtained from CARE institutional. The study was explained to the participants. The participants were reminded that they may withdraw their participation whenever they wish and the study results will be solely for research purpose.

**REFERENCE:**


