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

JISHY CARMAL P.N¹, SHEBA JAMES², PRITHIKA.P³, AJITH KUMAR.M⁴, SURYA.V⁵,
RADHA KRISHNAN.R⁶

^{1,3-6}STUDENT, ²MSC NURSING, CHETTINAD COLLEGE OF NURSING,

<p>How to cite this article: JISHY CARMAL P.N, SHEBA JAMES, PRITHIKA.P, AJITH KUMAR.M, SURYA.V, RADHA KRISHNAN.R, A STUDY TO ASSESS THE KNOWLEDGE AND SELF-CARE PRACTICES ON GESTATIONAL DIABETES MELLITUS AMONG ANTENATAL WOMEN, International Journal of Nursing Care 2023;11(2) 2-4.</p>
--

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 issue 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 activeness. 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 for the fetus¹.

Gestational Diabetes is one of the most common health issue 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 to 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%².

Corresponding Author: SHEBA JAMES, MSC NURSING, DEPARTMENT OF OBG, CHETTINAD COLLEGE OF NURSING, Email: jishycarmalpn@gmail.com

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 syndrome¹.

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 outcomes 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 pregnancy³

Knowledge is an important component of health literacy. Studies show that inadequate knowledge about the disease leads to poor understanding of 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 women⁴

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 affect both women and their infants as obesity, type 2 Diabetes mellitus, heart disease and Neuropsychological women⁴

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,

$$n = z^2 p_1(1-p_1) + p_2(1-p_2)$$

d²

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 where as 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 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 wishes and the study results will be solely for research purpose.

REFERENCE:

1. M. Shrestha, Chanchala kuwar, N. Pokhrel, R. Rai Knowledge and self-care practice in women with Gestational Diabetes Mellitus August (2017) Volume 9, issue 8, pages 1468-1472.
2. Chen penglong, Wang ,Shuxiang, Ge Aiping, et al cell Biochemistry and Biophysics; Risk factors and management of Gestational Diabetes Volume 71, issue 2, (March 2015): Pages 689-694
3. Gesa George, T.Sasikala, Ramya Chidambaran A study to assess the knowledge regarding Gestational Diabetes Mellitus among pregnant mothers and self-care practice of gestational diabetes mellitus management among mothers with diabetes in pregnancy, April- June (2021, Volume 21, issue 2, pages 539-542.
4. Mohan Deepa, Balaji Bhavadharini, Ranjit Mohan Anjana Knowledge about Gestational Diabetes Mellitus amongst Pregnant women, (2017) volume 8 , issue 1, pages: 22- 26
5. Shaimaa Fouad, Effect of Educational Sessions on Knowledge, Attitude and Self-Care Practices among Pregnant women with Gestational Diabetes, (2020), volume 11, issue 3, pages: 275-291