

A Descriptive Study to Assess the Knowledge Regarding Gestational Diabetes Mellitus among Pregnant Women during Antepartum Visit in Selected Hospitals of Haridwar, Uttarakhand

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Abstract: *This descriptive study aims to assess the knowledge of gestational diabetes mellitus among pregnant women during antepartum visits at selected hospitals in Haridwar, Uttarakhand. A structured interview schedule was used to collect data from 30 participants selected via non-probability sampling. The study revealed that a significant number of pregnant women had limited knowledge of GDM, with associations noted between knowledge levels and demographic factors such as education, religion, and information sources. The findings underscore the need for improved health education programs targeting maternal health.*

Keywords: Gestational diabetes mellitus, pregnant women, antenatal care, health education, knowledge assessment

1. Introduction

Gestational diabetes is common in pregnancy and is associated with adverse pregnancy and fetal outcomes. Currently, population-based data on the prevalence of gestational diabetes are limited in India. Gestational diabetes mellitus is a condition in which a hormone made by the placenta prevents the baby from using insulin effectively. Glucose builds up in the blood instead of being absorbed by the cells.

1.1 Need of the Study

Gestational diabetes mellitus is one of the most common medical complications during pregnancy and poses serious risks to both the mother and the fetus if not identified and managed early. Lack of awareness regarding GDM among pregnant women often leads to delayed diagnosis, poor glycemic control, and increased chances of complications such as preeclampsia, macrosomia, and neonatal hypoglycemia. Early antenatal visits provide a crucial opportunity for educating mothers about GDM, its risk factors, preventive measures, and the importance of screening. Therefore, assessing the knowledge of pregnant women regarding gestational diabetes is essential to promote healthy pregnancy outcomes and reduce maternal and neonatal morbidity. This study aims to identify knowledge gaps so that appropriate health education and interventions can be planned.

1.2 Purpose of the Study

The purpose of the present study was to assess the knowledge of pregnant women regarding gestational diabetes mellitus during antepartum visits in selected hospitals of Haridwar, Uttarakhand. The study also aimed to identify areas of inadequate knowledge among antenatal mothers so that suitable educational interventions can be developed. Improving awareness of GDM can help in early detection, better self-care, and prevention of complications

for both mother and baby.

1.3 Objectives of the Study

- 1) To assess the level of knowledge about Gestational diabetes mellitus among pregnant women during antepartum visit.
- 2) To determine the association between the level of knowledge on Gestational diabetes mellitus among pregnant women during antepartum visit in selected hospitals and their demographic variable.

1.4 Operational Definition

- **Assess:** It refers to judge, decide the amount, value or quality. In this study it refers to evaluate the quality of knowledge of pregnant women on Gestational diabetes mellitus.
- **Knowledge:** Facts information and skill acquired through experience or education, the theoretical or practical understanding of a subject.
- **Pregnant women:** Refers to a female who got successfully conceived the baby.
- **Gestational diabetes mellitus:** It refers to a diabetes that is diagnosed for the first time during pregnancy [Gestation]. Like other types of diabetes, Gestational diabetes affects how your cells use sugar [Glucose]. Gestational diabetes causes high blood sugar that can affect your pregnancy and your baby's health.

1.5 Conceptual framework of study

The health promotion model suggested by Nola J Pender [1982, revised 1996] was designed to be a "complementary counterpart to models of health protection. "The model defines health as a positive dynamic state not merely the non-attendance of disease. The model promotes increasing a client's level of well-being. It describes the multi-dimensional nature of person as they interact within their environment to pursue health. "Health promotion is the science and art of helping people change their lifestyle to

move towards a state of optional health.”

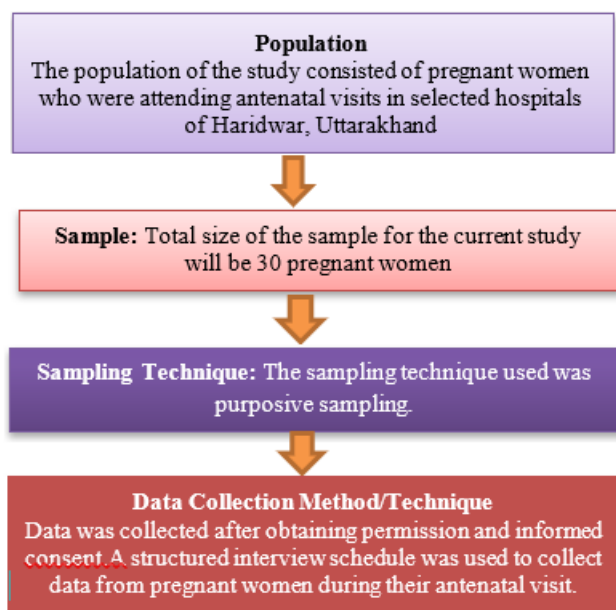
2. Review of Literatures

SABIHA RAZAQ [2025]: A Descriptive research study was conducted to study the prevalence of GDM and factors affecting GDM. A total of 139 participants were included in the study. The prevalence of GDM was 22%, out of 139 study participants 31 were affected individuals. The most common risk factors for GDM were maternal age, qualification, ethnicity, maternal occupation, consanguineous marriages, familial history, obesity, height, BMI and age at time of marriages. Obesity was the most common causing factor for GDM among other factor. study concluded that health education and awareness programs should be conducted to improve knowledge.

3. Methodology

Research Design

The research design selected for the study was a descriptive survey design to assess the knowledge regarding gestational diabetes mellitus among pregnant women in selected hospitals of haridwar, Uttarakhand



Tool/Instrument:

Section 1: Socio-demographic variables

Section 2: Structured knowledge questionnaire related to gestational diabetes mellitus

Table 1: Self- structured knowledge questionnaire [Score Interpretation]

S. No	Scoring	Interpretation
1	0-10	Poor Knowledge
2	11-20	Moderate Knowledge
3	21-25	Good Knowledge

4. Analysis and Interpretation

“Polit and beck” [2008] defines analysis and interpretation as categorizing, ordering, manipulating and summarizing of data to reduce it to intelligible and interpretable form, so that

the research problem can be studied and tested including relationship between the variables.

Objectives

- 1) To assess the knowledge of pregnant women on gestational diabetes mellitus.
- 2) To compare knowledge scores on gestational diabetes mellitus among the samples.

5. Result

Table 4.1: Frequency and percentage distribution of the pregnant women according to the selected demographic variables

Demographic variables		No. of samples	%
Age	<20	4	13.3%
	20-25	9	30.0%
	25 and more	17	56.7%
Religion	Hindu	16	53.3%
	Muslim	9	30.0%
	other	5	16.6%
Education	Illiterate	3	10.0%
	primary	5	16.6%
	Secondary	8	26.7%
	Graduation & above	14	46.7%
Occupation	House wife	17	56.7%
	Employed	13	43.3%
Past history of type 2 diabetes mellitus	yes	9	30.0%
	No	21	70.0%
Family history of GDM	Yes	6	20.0%
	no	24	80.0%
Habitat	Rural	18	60.0%
	Urban	12	40.0%
Source of information on GDM	Internet	9	30.0%
	Books	7	23.3%
	Other	14	46.7%

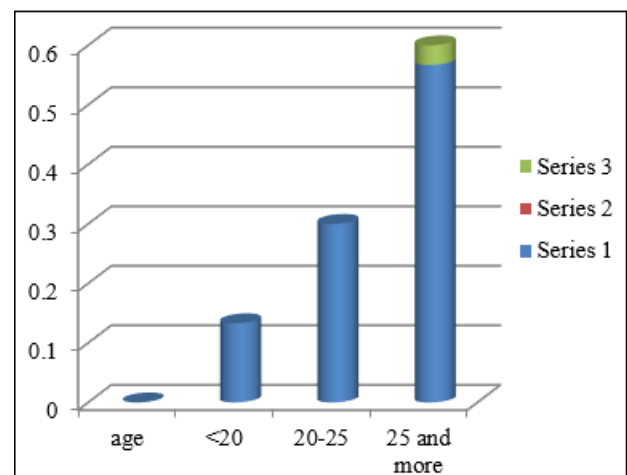


Figure: Frequency and percentage distribution of the pregnant women according to the age

6. Discussion

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This chapter deals with the discussion of the study with appropriate literature review, statistical analysis and findings of the study based on the objectives of the study. The aim of this study was to assess the knowledge on the use of

gestational diabetes mellitus among pregnant women during antepartum visit in hospitals of Haridwar, Uttarakhand. A total number of 30 pregnant women were selected by using purposive sampling technique was conducted by using self-administered questionnaire.

7. Recommendations

Similar study can be under taken with a large sample to generalize the findings.

A comparative study can be done about gestational diabetes mellitus.

8. Summary

The conceptual framework selected for the study is based on Pender's health promotion model. The focus of the model is to explain the knowledge of pregnant women on gestational diabetes mellitus. The study was conducted in various hospitals of Haridwar. The sample size consists of 30 pregnant women. The non-probability purposive random sampling technique was used to select the samples. The tool for data collection was a self-administered structured questionnaire having 25 items.

9. Conclusion

The findings reveal that a significant proportion of pregnant women in Haridwar have limited knowledge regarding gestational diabetes mellitus, highlighting the need for targeted health education initiatives. The study also identifies a meaningful association between knowledge levels and demographic factors such as education, habitat, religion, and information sources. This suggests the necessity for localized awareness campaigns and improved antenatal counseling to reduce risks associated with GDM.

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