



Develop Information Booklet on Knowledge & Attitude of Gestational Diabetes Mellitus Among Antenatal Mothers

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ABSTRACT

Background: Gestational diabetes mellitus is a condition with abnormal carbohydrate metabolism with onset or first detected during pregnancy. About 1-14% of all pregnancies are complicated by Diabetes mellitus and 90% of them are gestational diabetes mellitus.

Materials and Methods: This research was carried out among 300 antenatal mothers visiting the antenatal outpatient department at a medical college hospital in Gujarat, utilizing a convenient sampling method. Data were collected through a structured knowledge questionnaire designed to evaluate knowledge and a Likert attitude scale to measure attitudes. Both descriptive and inferential statistical methods were employed to analyze the demographic information, the structured knowledge questionnaire, and the Likert attitude scale. The Karl Pearson formula was applied to determine the correlation, while the Chi-square formula was used to assess the association.

Results: The findings indicated that a significant proportion of antenatal mothers (63.7%) exhibited poor knowledge and a negative attitude (52.7%) towards Gestational Diabetes Mellitus. A positive moderate correlation ($r = 0.55$) was found between knowledge and attitude.

Conclusions: Study revealed that there is significant association between knowledge and gender while no significant association found in attitude and other selected demographic variable.

Keywords: Gestational; Diabetes Mellitus; Antenatal Mother

Introduction

Gestational diabetes mellitus is a condition in which women without previously diagnosed diabetes exhibit high blood glucose level during pregnancy. GDM affect 3 -10% of pregnancy. According to American Diabetes Association (ADA); GDM is a common condition affecting 7% of all pregnancies. (resulting in more than 20,000 cases) GDM is defined as impaired glucose tolerance that begins or is first detected during pregnancy. Depending on the population sample and diagnostic criteria, the prevalence range from 1-14%. It is estimated that both fetal and maternal complication associated with GDM. Based on ADA the patient should be screened for risk factors for GDM at their initial visit. Babies born to mothers with GDM are typically at increased risk of complications such as being large for gestational age (which causes complications during delivery), low blood sugar and jaundice.

“Pregnancy is a unique, exiting and Often joyous time in a women's life”

Pregnancy is indisputably the most exciting time in a woman's life. And just as with any exciting event, there's also the thrill of uncertainty and pregnancy is the carrying of one or more offspring, known as a fetus or embryo, inside the uterus of a female. In a pregnancy, there can be multiple gestations, as in the case of twins or triplets. Human pregnancy is the most studied of all mammalian pregnancies. Pregnancy is a state of natural insulin resistance, which is due to placental production of human placental lactogen, an insulin antagonizing hormone, leading to a remarkable increase of insulin requirement in pregnant diabetics in the second and third trimester. Diabetes mellitus is chronic metabolic disorders due to either insulin deficiency or due to peripheral tissue resistance to the action of insulin and it is most common medical condition to affect pregnancy. According to WHO the gestational diabetes is defined as carbohydrate intolerance resulting in hyperglycemia of variable severity with its onset of first recognition during pregnancy.

In developed countries, estimated 13 million peoples are affects with diabetes, in that 5.2 million are women and the gestational diabetes in approximately 4 per 1000 pregnancy. Lowy highlighted on gestational diabetics mellitus and expressed the incidence in different ethnic groups (in accession it is 1 to 2%, in afocaribbens 2 to 3%, in Asians 4 to 5%). The UK task force and the St.Vincent declaration of the European association set

the aims to achieve a pregnancy outcome for the diabetic mother equal to that of non-diabetic mother. Nursing and medical management in gestational diabetes includes to regulate carbohydrate intake and restrict fat and sugars. The midwife should advice regarding exercise, regular blood glucose monitoring for hypoglycemia and recommended oral glucose tolerance test for 6 weeks of postnatal period.

The way a person responds to an illness will depend to a large extent in the personality of that individual. Each person is unique so also his response to a crisis. It is nurse's responsibility to identify the consequences of the person to provide the knowledge and care to patients. Gestational diabetes affects 3-10% of pregnancies, depending on the population studied. Approximately 7% of all pregnancies are complicated by GDM, resulting in more than 200,000 cases annually. In the United States today, 21 million people (7% of the population) have some form of diagnosed diabetes. Another 6 million people may be undiagnosed. Approximately 3-10% of pregnancies in the United States are complicated by diabetes, of which 90% is gestational diabetes and 8% is preexisting, insulin-resistant diabetes.

Materials and Methods:

Research Design: Descriptive research Design

Sample: Antenatal Mothers

Sample Size: 300

Sampling Techniques: convenient Sampling technique

Setting of the study: Medical College attached hospital of Gujarat state

Data Collection: Data were obtained using structured knowledge questionnaire to assess knowledge and Likert attitude scale to assess attitude. Descriptive and inferential statistics were used to analyze the demographic data, structured knowledge questionnaire and Likert attitude scale.

Objectives of The Study:

1. To assess the knowledge of Antenatal mother regarding Gestational Diabetes Mellitus who are attending antenatal outpatient department of government medical college attached hospital of Gujarat state.
2. To assess the attitude of Antenatal mother regarding Gestational Diabetes Mellitus who are attending antenatal outpatient department of government medical college attached hospital of Gujarat state.
3. To assess the correlation between knowledge and attitude of antenatal mother attending antenatal outpatient department of government medical college attached hospital of Gujarat state.
4. To find out association between selected demographic variable and knowledge regarding gestational diabetes mellitus among antenatal mother of Gujarat state.
5. To find out the association between selected demographic variable and attitude of antenatal mother who are attending antenatal outpatient department of government medical college attached hospital of Gujarat state.
6. To delivered Information Booklet regarding Gestational Diabetes Mellitus.

Results:

Section 1: Analysis And Interpretation Of Demographic Data Of The Sample

TABLE: 1

Frequency and percentage distribution of demographic data of samples.

(N=300)

Sr.No	Demographic data	Frequency	Percentage %	
1.	Age	a) 18-27 years	236	78.7
		b) 28-37 years	60	20
		c) 38-47 years	4	1.3
		d) Above 48 years	0	0

2.	Education	a) Illiterate	0	0
		b) Primary school	194	64.7
		c) Higher secondary school	81	27
		d) Graduation	23	7.7
		e) Post graduation	2	0.6
3.	Religion	a) Hindu	254	84.7
		b) Muslim	43	14.3
		c) Christian	2	0.7
		d) other	1	0.3
4.	Occupation	a) House wife	272	90.7
		b) business	18	6.0
		c) labour	4	1.3
		d) service	6	2.0
5.	Family income (per month)	a) below 10,000 Rs	278	92.7
		b) 10,000Rs to 15000Rs	20	6.7
		c) 16,000Rs to 25,000Rs	2	0.6
		d) Above 25,000Rs	0	0
6.	Type of family	a) Joint	259	86.3
		b) Nuclear	41	13.7
7.	Residence	a) Rural	17	5.7
		b) urban	283	94.3
8.	No. of living child	a) 0	94	31.3
		b) 1	136	45.3
		c) 2	56	18.7
		d) 3 or more than 3	14	4.7

Table 2: Frequency and Percentage wise distribution of the Samples on Knowledge Score.

(N=300)

Sr.No.	Level of Knowledge score	Obtain score	Frequency (f)	Percentage (%)
1.	Poor (0-8)	967	191	63.7
2.	Average (9-16)	986	90	30.0
3.	Good (17-25)	332	19	6.3
	Total	2285	300	100%

Table -6 shows knowledge level of antenatal mother regarding gestational diabetes mellitus out of 300 sample 191(63.7%) had poor knowledge whereas 90(30%) had average knowledge and 19(6.3%) had good knowledge.

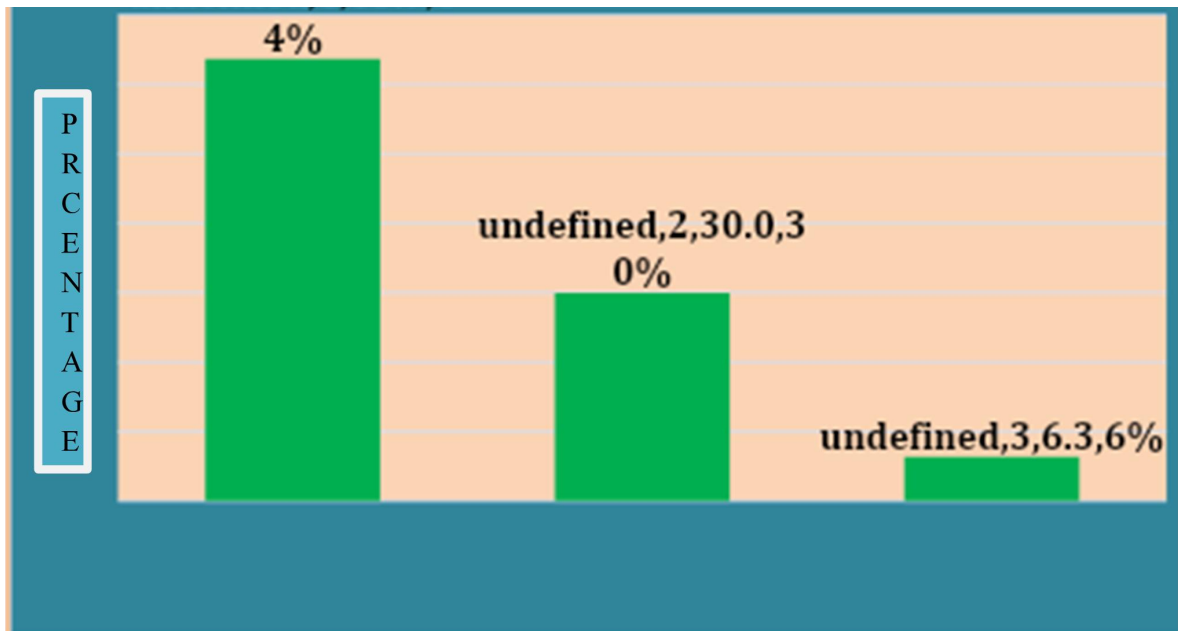


Figure :1 Bar graph show percentage of knowledge level of samples regarding gestational diabetes mellitus.

SECTION 2: ANALYSIS AND INTERPRETATION OF DATA COLLECTED ON THE LIKERT'S ATTITUDE RATING SCALE

TABLE: 3

Frequency and Percentage wise distribution of Attitude Score of Samples regarding Gestational Diabetes Mellitus among the antenatal mother.

(N=300)

Attitude	Classification of score	Obtain score	Frequency	Percentage %
Positive	61-100	9646	142	47.3%
Negative	20-60	8410	158	52.7%

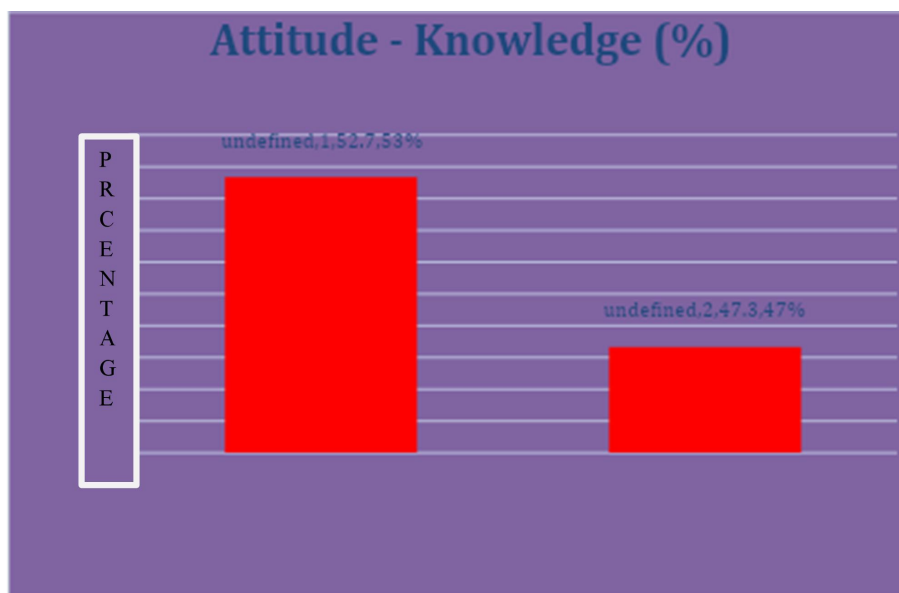


Figure :2 Bar graph shows attitude percentage of antenatal mother regarding gestational diabetes mellitus.

SECTION 3: ANALYSIS AND INTERPRETATION OF DATA FOR CORRELATION BETWEEN THE KNOWLEDGE SCORE AND ATTITUDE SCORE.

TABLE: 4

Correlation between Knowledge score and Attitude score of samples.

(N=300)

Sample	Knowledge mean score	Attitude mean score	Correlation coefficient	Inference
Antenatal mother	7.61	59.6	0.55	Significant positive correlation at 0.05 level of significance.

Major Findings

In findings of demographic data of the samples out of 300 samples majority of samples 236(78.7%) belongs to age group of 18-27 years. Majority of samples 194(64.7%) having primary education. 254(84.7%) having Hindu religion. 272(90.7%) antenatal mother was house wife. 278(92.7%) family having low income (below 10,000Rs). 259(86.3%) people coming to joint family. 283(94.3%) samples were residing at Urban area and 17(5.7%) samples were residing at Rural area. 136(45.3%) no. of living child in majority of antenatal mother having 1child.

In findings of the knowledge of samples regarding gestational diabetes mellitus, 191(63.7%) samples had poor knowledge, 90(30.0%) samples had average knowledge level and only 19(6.3%) samples had good knowledge.

In the attitude section 142(47.3%) samples had positive attitude towards gestational diabetes mellitus and 158(52.7%) samples had negative attitude towards gestational diabetes mellitus.

There was moderately positive correlation between knowledge and attitude calculated by Karl Pearson Correlation Coefficient formula which was 0.55 at 0.05 level of significance.

Discussion

The present study addressed to assess the knowledge and attitude regarding gestation diabetes mellitus among antenatal mother attending antenatal outpatient department of government medical college attached hospital of Gujarat State. In this survey, total 300 antenatal mothers were participated. Related to the finding of knowledge this study revealed that majority of samples (63.7%) had poor knowledge, (30%) had average knowledge and only (6.3%) samples had good knowledge of regarding. gestational diabetes mellitus.

Present study depicted that majority of samples (52.3%) having negative attitude and (47.3%) sample having positive attitude towards the gestational diabetes mellitus.

Similarly another study conducted by **Davila ME, Taglia Ferro AZ.(2008)** revealed that among 208 samples (24.5%) reported a good level of knowledge, (67.3%) have fair level of knowledge and (8.2%) deficient knowledge so study suggest that educational strategies' must be implemented to improve knowledge about disease ,its consequences and preventive measures for protecting this group at risk.

Conclusions

From the above findings it was considered that the antenatal mother attending out patient department had poor knowledge regarding gestational diabetes mellitus and negative attitude towards gestational diabetes mellitus. The knowledge and attitude are significantly correlated. This implies that as the knowledge of samples related to gestational diabetes mellitus increases, their attitude level also become more positive.

The study concluded that large number of samples having poor knowledge about gestational diabetes mellitus. specially in sign & symptoms and diagnosis, and treatment area and average knowledge in introduction area. As the antenatal mother having poor knowledge, so there is greater need for awareness and improve knowledge & change the attitude regarding gestational diabetes mellitus.

Recommendations

A similar study may be replicated on large scale with more samples and among more number of areas so that findings can be generalized. The following recommendations are made on the basis of the findings of the present study.

1. A similar study may be conducted in a large scale in order to get broader generalization.
2. A similar study may be conducted on beliefs and practice regarding gestational diabetes mellitus among antenatal mother in out patient department.

3. A comparative study to assess the knowledge and attitude regarding gestational diabetes mellitus between rural and urban area.
4. A comparative study between working women and house wife can be conducted.
5. A similar study may be conducted among the healthcare staff to assess their knowledge, attitude and practice towards gestational diabetes mellitus.
6. A study may be conducted to assess the effectiveness of self instructional module on gestational diabetes mellitus and its prevention among antenatal mother.
7. Effectiveness of video assisted teaching on gestational diabetes mellitus among antenatal mothers.
8. Effect of gestational diabetes mellitus on pregnancy outcome.
9. A study to describe the knowledge regarding gestational diabetes mellitus among student of selected ANM schools of Gujarat state.

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