ISSN : 2347-2251

Indo-American Journal of Pharma and Bio Sciences

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editor@iajpb.com

www.iajpb.com

Indo-Am. J. Pharm & Bio. Sc., 2019

ISSN 2347-2251 www.iajpb.com
Vol. 17, Issuse 1,Feb 2019

Indo-American Journal of Pharma and Bio Sciences

Knowledge, Attitudes, and Coping Strategies Regarding Gestational Diabetes Mellitus Among Pregnant Women

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ABSTRACT

Context and Objectives It is crucial to assess people's familiarity with, and perspective on, gestational diabetes mellitus. The goal of this research was to assess the level of awareness, understanding, and management of gestational diabetes among women using Masjed-Soleyman health care facilities in 2018.
Substances and Techniques: This descriptive cross-sectional research was conducted in Masjed-Soleyman, Iran, and assessed 142 women who had been referred to local health clinics. For this study, researchers used a questionnaire with the catchy title "Assessing the level of knowledge, attitude, and performance of mothers from gestational diabetes mellitus" to tally responses. The T-test, the analysis of variance, and the Pearson correlation coefficient were used to analyze the data using spss-20.

The findings showed that the average age of the 142 women investigated was 38.88 16.91. Only 20.4% of these people couldn't read or write at all, whereas 47.9% had at least a high school diploma. Average scores on tests measuring knowledge, attitude, and performance were 19.148.94, 20.775.71, and 8.

Keywords: Knowledge; attitude; practice; gestational diabetes; maternal.

1. INTRODUCTION

The hypothalamus, pituitary, parathyroid, and adrenal glands all need to adjust their metabolic and hormonal processes to ensure a healthy pregnancy, one of many anatomical and physiological changes connected with pregnancy. During pregnancy, the mother's metabolism changes to meet the demands of her developing child. The placenta secretes more hormones to facilitate the flow of nutrients from the mother to the developing child, and this impairs glucose tolerance to some extent in almost all pregnant women. Another set of hormones has a role in lowering the glucose levels in the mother's blood by inhibiting the insulin's ability to work. In order to combat the hormones of pregnancy, these cells typically have the capacity to create three times the usual amount of insulin found in a mother's pancreas. High blood glucose levels result in diabetes if the pancreas fails to generate adequate insulin. causes pregnant women to develop diabetes. Gestational diabetes, often known as high blood sugar, is typically identified in expecting mothers [1]. One of the most prevalent pregnancy-related problems is gestational diabetes [2].

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This metabolic disease poses serious risks to both mother and child, both in the short and long term. Macrosomia, birth trauma, cesarean section, polyhydraminosis, preeclampsia, newborn metabolic abnormalities, and hypoglycemia are all possible outcomes. Late postpartum problems, including as hyperbilirubinemia, hypocalcemia, and type 2 diabetes mellitus [3].

A mother's risk of developing diabetes mellitus increases with her age, if there is a family history of the disease, if she has high blood pressure, if she has had more than five pregnancies, if she has had abortions in the past, and if she gives birth prematurely [2]. The reported prevalence of this condition in the United States and Europe ranged from 1.4 percent to 14 percent, depending on factors such as population and race, method of data collecting, screening test used, and diagnostic criteria applied [4]. Kermanshah had a prevalence of 0.7 percent for gestational diabetes mellitus, whereas Karaj had a prevalence of 18.6 percent [5]. Indian Americans have conducted research showing that Asian women are at a higher risk of developing gestational diabetes compared to white women [6]. Having a strong religious or spiritual foundation has been demonstrated to help people cope with the challenges of diabetes and take an active role in their own treatment [5].

The diet has been shown to reduce the risk of developing type 2 diabetes. Pregnancy-related insulin activity seems to be significantly influenced by the food plan [7]. Trans fatty acids [8] are a key part of the maternal diet that may influence hemostasis and insulin function. Researchers in Vietnam discovered that active women had a decreased chance of getting gestational diabetes in 2018. This research shows that regular physical activity is crucial in the fight against diabetes.About 11 million women of reproductive age live in Iran, a developing nation with little economic resources and a large and youthful population.

To be of childbearing age. Given the disease's complexity, it stands to reason that screening for it is crucial [3]. Without considering social and cultural factors, a change in behavior and intervention to prevent and manage diabetes before and during pregnancy is likely to fail. Community-level treatments that include social limitations and forms as well as the cultural peculiarities of those who live there are necessary to complement individual training [5].

Given the serious risks associated with gestational diabetes, understanding the causes of the disease is crucial for developing effective treatments. Therefore, the purpose of this research was to evaluate the levels of awareness, understanding, and management of gestational diabetes mellitus among women seeking care at health clinics in Masjed-Soleyman in 2018.

2. MATERIALS AND METHODS

This is a cross-sectional descriptive-analytic study in which factors related to gestational diabetes are studied. This study was performed on women referred to health centers of Masjed- Soleyman city, southwest of Iran in 2018. They had at least one pregnancy and all or some of them were at risk for gestational diabetes.

The sampling method is that the researcher, along with one of his colleagues, in the interval from one month from mid-May to mid-June at different hours from 8 am to 2 pm and on different days of the week, randomly went to health centers after the explanation of thepurpose of the research, the method of implementation and obtaining consent, the knowledge, attitude and performance questionnaire on gestational diabetes is providedto the participants.

The questionnaire consists of three parts. In the first part, knowledge of the person was evaluated with the questions as follows: Is there a relationship between hypertension and gestational diabetes, Is Polyuria and neonatal Macrosomia from side effects of gestational diabetes? Fasting blood sugar is over 105 in gestational diabetes? Does stress affect Gestational Diabetes? Can Glibenclamide be used in pregnancy?. In the second part, the performance of the person is evaluated by asking questions like: Have you measured your blood sugar before and during pregnancy? - Do you control your weight gain? Do you refrain from using salt and sugar?

Do you do mild exercise and walk daily? and in the third section, one's attitude toward gestational diabetes is being examined by asking questions such as: An ideal weight gain in pregnancy is 12 kilograms. - How does gestational diabetes increase with age? - One of the effective factors in increasing gestational diabetes is frequent pregnancies?

In addition to the mentioned cases, such as age, education level, mother's occupation, gestational age, number of pregnancy, abortion history, information resources were studied. Validity of the questionnaire was measured using face to face validity and content. In this way, the questionnaire was prepared according to the authoritative sources and books in this regard. Reliability of this questionnaire was calculated using Cronbach's alpha coefficient of 0.74. Data

were collected in one step according to available tools and then data analysis was performed using SPSS 20 software, independent t tests, ANOVA and Pearson correlation coefficient.

3. RESULTS

In this study, 142 women with an average age of 38.88 ± 16.91 were studied. Of these, 47.9%were diploma, 31.7% higher than diploma and 20.4% were illiterate. 89.4% of the housekeeper, 7% of the worker and the rest of the worker, 51.4% more than 2 times pregnant, and the rest were less than and equal to 2 times pregnancy and 29.6% had abortions.

The mean scores of knowledge, attitude and performance of these individuals were 19.14 ± 8.94, 20.77 ± 5.71, and 8. 21 ± 3/21, indicating good knowledge and performance, and an average attitude about GDM. 4.2% had poor knowledge, 11.3% had poor performance and 7.7% had poor attitude.

Of these, 50 percent of radio and television, 25.4 percent of health workers, and the rest of their friends and magazines and the newspaper had their data on GDM.

Employed women had a significant statistically significant level of knowledge, attitude and performance than others ($p<0.05$). However, there was no significant relationship between the

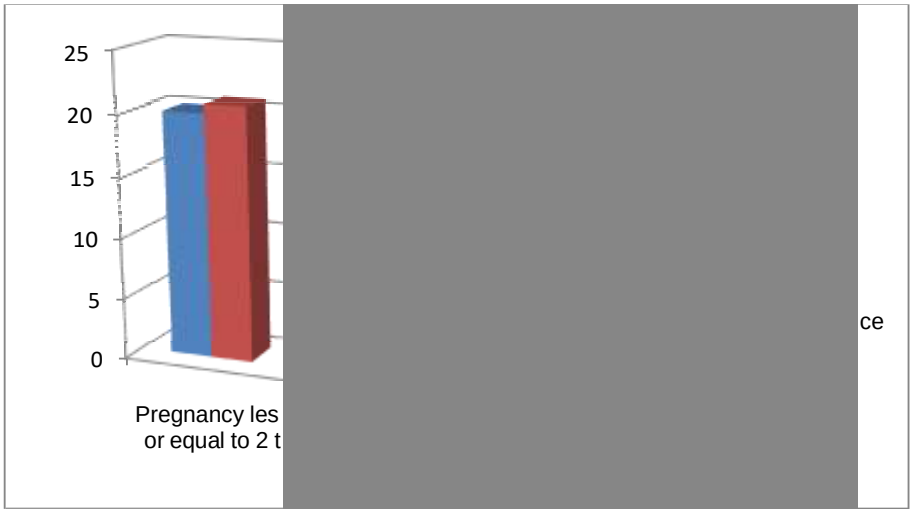

Fig. 1. Mean scores of knowledge, attitude and performance regarding gestational diabetes interms of the number of pregnancies

Fig. 2. Mean scores of knowledge, attitude and performance regarding gestational diabetes based on abortion history

4. DISCUSSION AND CONCLUSION

Another research employing the Pearson correlation coefficient discovered that GCT (Glucose Challenge Test) levels are inversely related to vitamin D levels [6]. Zang et al. found that maternal glucose tolerance may be negatively

impacted by a diet high in Trans fatty acids. According to Zang, women who eat fast food during pregnancy are less likely to exercise than nonpregnant women, which may contribute to the development of gestational diabetes [6].Hedavati's research found that 32% of Italian women were already diabetic, whereas 63% were considered normal. Pregnancy complications, such as high blood pressure, vaginal infections, and premature fetal rupture, are more common in mothers with diabetes, according to another study that estimates the prevalence of gestational diabetes mellitus to be 6.6% [11]. Among 725 mothers examined in a study on the prevalence of diabetes in pregnant and trying-to-conceive women in South Africa [12], 35 were diagnosed with type 1 diabetes, 194 were diagnosed with type 2, and 192 were diagnosed with gestational diabetes. The findings of this research suggest that it is feasible to raise awareness among the general public, and particularly among women who are considering becoming pregnant. Classes may be arranged to teach people about gestational diabetes and its effects on mothers, and information can be disseminated via newspapers, radio, and television.

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