THE RELATIONSHIP OF KNOWLEDGE WITH MOTHER'S ATTITUDES PREGNANT ABOUT GESTATIONAL DIABETES MELLITUS IN BARU VILLAGE

Tri Yuni Astuti[1] *, Mesrida Simarmata* [2] *, Indrawan Syahputra* [3]

[1.2] Midwifery Study Program Undergraduate Program, STIKes Mitra Medan, Indonesia
[3]Baru Village, Hinai District, North Sumatra Province. Indonesia

Correspondence address: Jl. Air Door IV Jl. Ps. VIII No.Kel , Kwala Bekala , Kec . Medan Johor, Medan City, North Sumatra
City and country : Medan , Indonesia
Email : mesridasimarmata@gmail.com

Abstract

Background : Diabetes Mellitus Gestational (GDM) is incident improvement glucose in the mother pregnant sick from disturbance tolerance in mother pregnant . can happened to the mother pregnant Because happen improvement estrogen and progesterone hormones so increase hyperplasia pancreatic beta cells so insulin release increases and experiences resistance at the beginning pregnancy . Disorders vision , preeclampsia , fetus large , miscarriage , prolonged labor , premature , cesarean delivery **Method :** Design study Which used in study This that is analytic correlation with approach *cross-sectional* . Time and place research : Research This held in June 2024 in New Village , Hinai District , The Land of the Rising Sun North Sumatra Province in 2024. Population and sample : population is Mother pregnant women in Desa Baru with a total sampling of 42 people. **Result:** Respondents majority knowledge Enough as much as 18 people (43%) and based on attitude majority positive as many as 33 people (79%). Chi square test results obtained is 0.002 . or (0.05). This is state There is connection between knowledge somebody with attitude against diabetes mellitus gestational . **Conclusion :** There is a relationship knowledge to attitude Mother pregnant about Diabetes Mellitus Gestational so need done improvement knowledge for mothers pregnant behave positive in prevention of diabetes mellitus Gestational .

Keywords : Knowledge , Attitude , DMG

INTRODUCTION

According to WHO, Gestational Diabetes Mellitus (GDM) is an intolerance that occurs in pregnant women that occurs after pregnancy. According to PERKENI 2021, GDM is an incident of increased glucose in pregnant women due to impaired tolerance in pregnant women (PERKENI, 2021) . The incidence of GDM is around 3-5% of pregnancies. The incidence of GDM in Europe is 5.4%, Africa is 14% and Asia is 1-20%. The incidence of GDM in Indonesia is around 1.9% -3.6% (Ningsih et al., 2019) . According to Djamaluddin and Mursalim in 2020, the incidence

of GDM at Prof. Dr. H. Aloei Saboe Hospital, Gorontalo City, was around 56.7% experiencing GDM being treated at the hospital (Djamaluddin & Mursalin, 2020) .

DMG can be diagnosed when a blood glucose test is performed from a vein at the end of the second trimester of pregnancy and after a blood glucose test is performed 1-2 hours after being given 75 grams of glucose solution, the results of the fasting OGTT blood sugar level are blood sugar levels ≥ 92 mg/dl or 1-hour blood sugar ≥ 180 mg/dl or 2-hour blood sugar ≥ 153 mg/dl (PERKENI, 2021) .

DMG can occur in pregnant women because there is an increase in estrogen and progesterone hormones, which increases pancreatic beta cell hyperplasia, so insulin release increases and experiences resistance in early pregnancy. In the 2nd and 3rd trimesters, maternal cells will stimulate the use of energy other than glucose such as fatty acids. Insulin resistance occurs due to defects in post-receptors so that they are unable to facilitate glut 4 or insulin-mediated glucose transport so that cells can absorb glucose from the blood vessels (Kurniawan, 2016) . Signs and symptoms felt by pregnant women are frequent hunger, thirst, frequent urination, weight loss, vaginal infections, fatigue, tingling in the feet and hands, blurred vision, long wound healing process, problematic sex (Ningsih et al., 2019) . Trigger factors for GDM are: race or ethnicity, age > 35 years, obesity (BMI> 30), history of hypertension, while complications that can occur due to GDM are visual impairment, preeclampsia, large fetus, miscarriage, prolonged labor, premature, cesarean delivery (Ningsih et al., 2019) (Saifullah et al., 2022) . Things that can be done to prevent the impact of DMG are early detection of blood sugar levels in pregnant women which can be done on pregnant women during ANC (Novita Anggraini & Margareta Haiti, 2024) . Rahmawati also said that DMG can be prevented by screening, namely checking blood sugar levels and measuring BMI and assessing the triggering factors for DMG (Rahmawati et al., 2016) .

Based on matter above and supported from results Interview with the community in Baru Village, Hinai District, found 1 mother pregnant women with diabetes mellitus Gestational .

METHOD

Design study Which used in study This that is analytic correlation with approach *cross-sectional* . Time and place research : Research This held in June 2024 in New Village , Hinai District , The Land of the Rising Sun North Sumatra Province in 2024. Population and sample : population is Mother pregnant women in Baru Village with a total sampling of 42 people

RESULT

1. Univariate Analysis

From the univariate analysis, the characteristics of the respondents were obtained as in Table 1:

Table 1. **Frequency Distribution of Respondent Characteristics in Baru Village, Hinai District, Langkat Regency, North Sumatra Province in 2024**

Age	**Frequency**	**Percentage (%)**
20-35 years	35	83
>35 years	7	17
TOTAL	**42**	**100**
Education	**Frequency**	**Percentage (%)**
JUNIOR HIGH SCHOOL	9	21
SENIOR HIGH SCHOOL	26	62
College	7	17
TOTAL	**42**	**100**
Work	**Frequency**	**Percentage (%)**
Housewife	37	88
Employee Private	2	4.8
civil servant	3	7.1
Total	**42**	**100**
pregnancy	**Frequency**	**Percentage (%)**
Primigravida	12	29
Multigravida	30	71
Total	**42**	**100**

Based on table 1, the characteristics of respondents based on age, the majority are aged 20-35 as many as 35 people (83%) and the minority are aged >35 years as many as 7 people (17%), In terms of education, the majority have high school education as many as 26 people (62%) and the minority have college education as many as 7 people as many as 17 people (17%), based on occupation, the majority work as housewives as many as 37 people (88%) and the minority work as private

employees as many as 2 people (7%). based on gravida, the majority work as housewives as many as 37 people (88%) and the minority work as private employees as many as 2 people (7%). based on gravida, the majority are multigravida as many as 30 people (71%) and the minority are primigravida as many as 12 people (29%). Frequency distribution of Respondent Knowledge

2. Frequency Distribution of Respondents' Knowledge

The frequency distribution of respondents' knowledge can be seen in Table 2.

Table 2. Distribution Frequency Knowledge Respondents About Gestational Diabetes in New Village, Hinai District, Sidoarjo Regency The Land of the Rising Sun North Sumatra Province 2024

Knowledge	Frequency	Percentage (%)
Not enough	10	24
Enough	18	43
Good	14	33
TOTAL	**42**	**100**

Based on the respondents' knowledge, the majority had sufficient knowledge, as many as 18 people (43%) and the minority had insufficient knowledge, as many as 10 people (24%). Attitude

The frequency distribution of respondents' attitudes is as shown in Table 3.

Table 3. Distribution Frequency Attitude Respondent About Gestational Diabetes in New Village, Hinai District, Sidoarjo Regency The Land of the Rising Sun North Sumatra Province 2024

Attitude	Frequency	Percentage (%)
Negative	9	21
Positive	33	79
TOTAL	**42**	**100**

Based on the majority attitude, the respondents' attitudes were positive, as many as 33 people (79%) and the minority had a negative attitude, as many as 9 people (21%).

2. Bivariate Analysis

The results of the study to determine the Relationship between Knowledge and Attitudes about Gestational Diabetes in Baru Village, Hinai District, Langkat Regency, North Sumatra Province in 2024 can be seen in Table 4:

Table 4. Relationship Between Knowledge and Attitudes About Gestational Diabetes in Baru Village, Hinai District, Langkat Regency, North Sumatra Province in 2024

Variables	Frequency	Attitude						*P.Value*
		Negative	%	Positive	%	**Total**	%	
Knowledge	Kurang	6	14	4	10	10	24	0.002
	Sufficient	3	7	15	36	18	43	
	ok	0	0	14	33	14	33	
TOTAL		**9**	**21**	**33**	**79**	**42**	**100**	

Based on table the can seen respondents who have good knowledge as many as 14 people (33%) all have a positive attitude about gestational diabetes mellitus, respondents with sufficient knowledge as many as 18 people (43%), from 18 people it was found that the majority were sufficient and had a positive attitude as many as 15 people (36%), respondents with low knowledge as many as 10 people (24%) the majority had a negative attitude as many as 6 people (14%). with the Chi square test the results obtained were 0.002. or (0.05). This states that there is a relationship between a person's knowledge and attitude towards gestational diabetes mellitus.

DISCUSSION

Analysis Univariate

Based on table 4.1, the characteristics of respondents based on age, the majority are aged 20-35 as many as 35 people (83%), In terms of education, the majority are high school education as many as 26 people (62%), based on occupation, the majority work as housewives as many as 37 people (88%), based on gravida, the majority work as housewives as many as 37 people (88%). based on gravida, the majority are multigravida as many as 30 people (71%).

Based on the majority of respondents aged 20-35 years as many as 35 people (83%), this shows that the majority of respondents are at a healthy age to reproduce, all respondents are pregnant women who are in the new village of Hinai District. The majority of respondents have a high school education of 26 people (62%), this is related to the knowledge of respondents and the attitudes of respondents later about Gestational Diabetes. A person's job can affect a person's knowledge and attitude about something. The majority of respondents work as housewives as many as 37 people (88%), the majority of respondents are multigravida as many as 30 people (71%), this greatly supports a person's

knowledge and attitude about gestational diabetes because the mother already has experience dealing with gravida and often gathers with the pregnant women community.

The majority of respondents have sufficient knowledge as many as 18 people (43%) and based on the majority's positive attitude as many as 33 people (79%). The results of this study are in accordance with the results of previous studies that the majority's knowledge is sufficient, the majority's attitude is positive (Ilyas & Sartika, 2019) . The results of this study are also in accordance with the results of previous studies that good perceptions are associated with early detection of gestational diabetes mellitus (Mellitus et al., 2024) .

4.3.2 Bivariate Analysis

Based on table 4.4, it can be seen that respondents who have good knowledge are 14 people (33%) all have positive attitudes about gestational diabetes mellitus, respondents with sufficient knowledge are 18 people (43%), from 18 people it was found that the majority were sufficient and had positive attitudes as many as 15 people (36%), respondents with low knowledge are 10 people (24%) the majority have negative attitudes as many as 6 people (14%). with the Chi square test the results obtained were 0.002 or (0.05). This states that there is a relationship between a person's knowledge and attitudes about gestational diabetes mellitus.

From the results of this study, it was found that the better a person's knowledge, the more positive their attitude about Gestational Diabetes Mellitus. The results of this study are the same as the results of previous studies, namely that the knowledge of pregnant women is related to the attitudes of pregnant women about Gestational Diabetes Mellitus (Ilyas & Sartika, 2019) . This study is also in line with the objectives of previous studies that perceptions without obstacles will encourage behavior in making decisions to carry out early detection in preventing gestational diabetes mellitus (Mellitus et al., 2024) . In other studies, it was stated that counseling on Gestational Diabetes Mellitus is needed to increase the knowledge of pregnant women in order to change the perceptions and actions of mothers about gestational diabetes mellitus.

The researcher assumed that the majority of respondents' knowledge was sufficient because the majority of respondents had a high school education and some had college education so that they could easily absorb information from various sources, while the respondents' attitudes were positive because the majority of respondents had sufficient knowledge about gestational diabetes mellitus .

. CONCLUSION AND SUGGESTION

As for the conclusion of study This is majority knowledge Respondent knowledgeable enough , majority attitude Respondent behave positive , there is connection from knowledge and attitudes of pregnant women about gestational diabetes in Baru Village, Hinai District, Langkat Regency, North Sumatra Province. Suggestion: Need given education for mothers pregnant for knowledge the more good and attitude become positive about prevention of gestational diabetes in order to behave positive in DMG prevention

ACKNOWLEDGMENT

Saying accept love as big as the magnitude of the Mitra Husada Medan Health College which has give support facilities and infrastructure in the research process this and also the sayings accept love to the Head of the New Village of Hinai District, The Land of the Rising Sun North Sumatra Province which has give permission in implementation study This is in New Village, Hinai District , Langkat . We also say thank you love for mother pregnant with New Village which has willing become Respondent in study this , hopefully results study This can useful in all party . .

REFERENCE

Djamaluddin, N., & Mursalin, Vera Mila Oktavia. (2020). Overview of Gestational Diabetes Mellitus in Pregnant Women at RSUD. In *Jambura Nursing Journal* (Vol. 2, Issue 1, pp. 124–130).

Ilyas, H., & Sartika, S. (2019). Overview of Knowledge and Attitudes of Pregnant Women about Gestational Diabetes Mellitus at Mangasa Health Center, Makassar. *Mitrasehat Journal* , *9* (2), 776–787.

Kurniawan, LB (2016). Pathophysiology, Screening, and Laboratory Diagnosis of Gestational Diabetes Mellitus. *Mirror of the World of Medicine* , *43* (11), 811–813. http://cdkjournal.com/index.php/CDK/article/view/884

Mellitus, D., Di, G., & Bajoe, P. (2024). RELATIONSHIP

BETWEEN PREGNANT WOMEN'S PERCEPTION AND EARLY DETECTION BEHAVIOR OF GESTATIONAL DIABETES MELLITUS AT BAJOE BONE PUBLIC HEALTH CENTER. *Mitra Sehat Journal* , *14* , 549–557.

Ningsih, SR, Subarto, CB, & Fajarini, N. (2019). *Diabetes Mellitus in Pregnancy* . chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/http://digilib.unisayogya.ac.id/4254/1/Mengenal dan Upaya Mengatasi Diabetes dalam Pregnancy - FIX.pdf

Novita Anggraini, & Margareta Haiti. (2024). Early Detection of Gestational Diabetes Mellitus. *Journal of Health and Development* , *14* (27), 88–93. https://doi.org/10.52047/jkp.v14i27.302

PERKENI. (2021). Guidelines for the Diagnosis and Management of Hyperglycemia in Pregnancy 2021. *Guidelines for the Diagnosis and Management of Hyperglycemia in Pregnancy* , 51. https://pbperkeni.or.id/wp-content/uploads/2021/11/22-10-21-Website-Pedoman-Diagnosis-dan-Penatalaksanaan-Hiperglikemia-dalam-Kehamilan-Ebook.pdf

Rahmawati, F., Natosba, J., & Jaji, J. (2016). Screening for Gestational Diabetes Mellitus and Risk Factors Affecting It. *Sriwijaya Nursing Journal* , *3* (2), 33–43.

Saifullah, YY, Masita Fujiko, Sigit Dwi Pramono, Indah Lestari, & M. Hamsah. (2022). LITERATURE REVIEW: The Relationship Between Gestational Diabetes Mellitus and Premature Birth. *Fakumi Medical Journal: Journal of Medical Students* , *2* (2), 122–137. https://doi.org/10.33096/fmj.v2i2.50