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Effect of Health Education Programme on Self-Care Practice of Gestational Diabetes among Antenatal Mothers in General Hospitals, Katsina State, Nigeria

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Abstract

This study examined the effect of a health education programme on self-care practices among antenatal mothers with gestational diabetes in General Hospitals in Katsina State, Nigeria. The study, which included an experimental and control group based on pre-test and post-test measures, employed a quasi-experimental approach. Out of the 281 diabetes pregnant women in the study region, 65 registered diabetic prenatal mothers were purposefully chosen as a sample. Experts from several departments duly validated the Structured Self-Care Practice Questionnaire on Gestational Diabetes Care and Management (SKQGCM), which the researcher used. The instrument's reliability was assessed using the test-retest method, and the results showed a coefficient (r) of 0.93. The t-test and Pearson correlation coefficient inferential statistics were used to evaluate the formulated hypotheses (one and two, respectively) at 0.05 level of significance. The findings showed that there is a significant difference in self-care practices between the control and experimental groups after the health education program ($P = 0.000$). Moreover, there is a significant relationship between educational level, knowledge of gestational diabetes and self-care practices of the diabetic antenatal mothers in the experimental group. The study concluded that the intervention programme had an impact on the self-care practices of diabetic antenatal mothers. Among other things, it was suggested that medical facilities should offer organized, research-based courses on gestational diabetes as part of standard prenatal care.

Keywords: Gestational diabetes, health education programme, Katsina General Hospitals, self-care practice

INTRODUCTION

Diabetes mellitus, also known as diabetes, is a metabolic disorder characterized by elevated blood glucose levels. Insufficient insulin production, decreased insulin action, or both might be the cause of this elevated blood glucose level, according to the World Health Organization (2022). Diabetes is a condition that may be classified into a number of different categories, the most common of which are type 1 diabetes, type 2 diabetes, monogenic diabetes, secondary diabetes, and gestational diabetes.

The feature that distinguishes type 1 diabetes mellitus (T1DM), which accounts for between 59% and 10% of all instances of diabetes, is the autoimmune destruction of insulin-producing beta cells in the pancreatic islets. This is the distinguishing characteristic of type 1 diabetes. Because of this, there is no insulin available, which is a direct consequence. An autoimmune disease has been linked to a range of

environmental factors, including pollution, viral infections, and certain dietary components. In addition, a genetic susceptibility to the ailment has also been associated to the disorder. (Massey *et al.*, 2019). Despite the fact that the ailment may present itself at any age, the most prevalent instances of type 1 diabetes are observed in children and teens. This is despite the fact that the condition can show itself at any age.

It is estimated that around ninety percent of persons who have diabetes are diagnosed with type 2 diabetes mellitus (T2DM). Those who have type 2 diabetes are said to have insulin resistance, which is a word that is used to characterize the diminished responsiveness to insulin that occurs in these individuals. In the event that this circumstance is present, insulin is ineffective, and the first increase in insulin production is necessary to maintain glucose levels within the normal control range.

In contrast, type 2 diabetes is characterized by a steady decline in insulin production over time. This is the hallmark of type 2 diabetes. People who are above the age of 45 make up the vast majority of individuals who find themselves diagnosed with type 2 diabetes. On the other hand, it is becoming more prevalent among children, adolescents, and young adults as a consequence of the rise in the prevalence of obesity, the rise in the prevalence of physical inactivity, and the rise in the prevalence of meals that are rich in energy (Zheng, Ley, & Hu, 2018). It is possible that a single genetic mutation in an autosomal dominant gene is the origin of a condition known as monogenic diabetes. It is generally accepted that a single gene is responsible for the development of both neonatal diabetes mellitus and maturity-onset diabetes of the young (MODY), which are categorized as kinds of diabetes. It is possible that monogenic diabetes accounts for anywhere from one percent to five-nine percent of all cases of diabetes throughout the world. The authors Petersmann *et al.* (2019) indicate that MODY is a genetic disorder that typically presents itself before to the age of 25. They also note that its symptoms typically appear before the age of 25.

In accordance with the findings of Malek *et al.* (2019), secondary diabetes may be triggered by medications such as corticosteroids, hormonal imbalances like Cushing's disease, or complications arising from other pancreatic disorders, including pancreatitis. The term "gestational diabetes" is used by the World Health Organization (WHO) to describe any change in blood sugar levels that is discovered for the first time during pregnancy. This is true regardless of whether the condition persists after the child is born. Following the birth of their child, it is not uncommon for the blood sugar levels of women who have been diagnosed with gestational diabetes to go back to normal levels. Due to the effects of placental hormones, the body is unable to utilize insulin efficiently, resulting in sugar being retained in the blood rather than being absorbed. This is the outcome of inadequate insulin utilization. Insulin resistance disorder is the term used to describe this particular set of symptoms. An increase in thirst, frequent urination, an increase in hunger, fatigue, decreased eyesight, unexpected weight loss, and wounds that do not heal are some of the most visible signs of gestational diabetes. Other symptoms include an increase in heart rate and blood pressure. Gestational diabetes is associated with a number of unfavorable outcomes, such as an increased likelihood of maternal pre-eclampsia or

eclampsia, maternal cardiovascular disease, maternal type 2 diabetes, fetal macrosomia, preterm delivery, cesarean section, birth trauma, infant born large for gestational age, infant respiratory distress, and cardiac malformations in neonates (Ye *et al.*, 2022). These outcomes are associated with several adverse outcomes.

A prior pregnancy that did not include gestational diabetes but was complicated by hypertensive diseases, perinatal mortality, maternal obesity, or fetal macrosomia is considered to be a risk factor for developing gestational diabetes (Juan & Yang, 2020). This is because these conditions may all increase the likelihood of acquiring type 2 diabetes during pregnancy. Other variables that increase the likelihood of developing diabetes include having a family history of type 2 diabetes, being overweight or obese, having a family history of diabetes, and having an advanced maternal age. Zhang *et al.* (2019) state that the treatment of gestational diabetes requires a unique approach, encompassing both non-pharmacological and pharmacological treatments. Therefore, the treatment of this condition requires a specific method. Moreover, non-pharmacologic therapies are covered in this category. According to Lende and Rijhsinghani's 2020 research, non-pharmacological interventions include the following: daily self-monitoring of fasting and postprandial blood glucose levels, alterations to the diet and monitoring of nutrition, exercise and physical activity, control of maternal weight gain, and other lifestyle adaptations. As stated by Lende and Rijhsinghani (2020), to successfully apply pharmacologic treatments, it is essential to utilize insulin or oral hypoglycemic drugs, such as metformin or glibenclamide. According to the International Diabetes Federation (2021), it is projected that fourteen percent of women throughout the globe are affected by complications related to pregnancy and delivery. It was discovered that the prevalence of gestational diabetes in Africa was 13.6%, as shown by research carried out by Muche *et al.* (2019). According to a 2021 study conducted at the University College of Obstetrics and Gynecology in Ibadan, Nigeria, the prevalence of gestational diabetes in the country ranged from 0.5% to 38%. The study was done in Nigeria. Research also shows that the prevalence of gestational diabetes varies considerably from one geopolitical zone to another. This is something that researchers have discovered. This is something that had not been acquired before this point.

The north central zone, which encompasses Abuja and the Federal Capital Territory, has the highest frequency of gestational diabetes (16%), while the south-south zone has the lowest prevalence (7%) of the condition. This is according to the findings of the study. The knowledge, perspective, and self-care habits of expectant women in relation to gestational diabetes are the key elements that determine the outcomes of pregnancies. It is important to note that these aspects are interrelated. According to [AlHabashneh \(2015\)](#), knowledge is a crucial component in the formation of health ideas. This is due to the fact that a lack of information about the condition can result in inadequate comprehension of the instructions provided by the healthcare practitioner, limited adherence to treatment protocols, and ultimately, adverse perinatal outcomes. The manner in which pregnant women understand gestational diabetes may have a direct influence on the degree to which they require specialized training, the manner in which they manage their condition, the manner in which they evaluate the short-term and long-term complications, the manner in which they feel about their autonomy in treatment, the manner in which they communicate with the medical care team, and ultimately, the degree to which they take the disease seriously. As a consequence, it is of the highest importance to consider the beliefs and attitudes of individuals when developing strategies for diabetes treatment ([Saboula, Ahmed, & Rashad, 2018](#)). The authors [Saboula et al. \(2018\)](#) state that self-care strategies for gestational diabetes include a broad variety of activities. These activities include self-monitoring of blood sugar levels, managing weight, and determining one's sensitivity to the illness. Several research ([Zandinava et al., 2017](#)) have shown that providing diabetes-affected women with instruction on self-care practices brings about a multitude of benefits. These advantages have been demonstrated to be numerous. There is evidence that demonstrates that these results are significant. Studies have indicated that the prevalence of gestational diabetes is rising all over the globe, with certain nations seeing a seventy percent increase in the number of cases over the course of six years. This rise might be attributed to a variety of factors, including an increase in the average age of mothers, a rise in the prevalence of obesity, and changes in lifestyle. There are a variety of negative outcomes that are related with gestational diabetes, according to the results of [Clarck et al., \(2023\)](#). These outcomes include type 2 diabetes, pre-eclampsia, and complications during delivery.

A study that was carried out not too long ago and covered more than 56 million pregnancies came to the conclusion that diabetes in women, and more specifically gestational diabetes, is associated with a 28% increased risk of neurological disorders in children, such as autism. This was the conclusion reached by the researchers. The correlation highlights the importance of managing blood glucose levels during pregnancy ([Sherri, 2025](#)). This is despite the fact that a causal relationship has not been proved to exist between the two variables.

The routine screening for gestational diabetes is often carried out between the ages of 24 and 28 weeks of pregnancy to ensure that the condition is not present. A number of studies, on the other hand, have shown that testing conducted earlier, prior to 14 weeks, has the potential to improve the outcomes. To successfully deploy early screening, it is necessary to make adjustments to clinical standards and to increase public awareness among healthcare practitioners, as stated by [Thomas \(2017\)](#).

With rates ranging from 0.5 percent to 38 percent and a pooled prevalence of 11 percent, the incidence of gestational diabetes in Nigeria varies significantly from one area to another. The pooled prevalence estimates that the incidence is 11 percent. In accordance with the findings of [Feyisayo and Satwinder \(2022\)](#), the most significant risk factors consist of an advanced mother age, obesity, a history of diabetes in the family, and a previous pregnancy that resulted in a macrosomic delivery.

A significant proportion of pregnant women in Nigeria are unaware of the likelihood that they might acquire gestational diabetes during their term of pregnancy. According to the findings of a survey, the vast majority of pregnant women in Warri, which is situated in Delta State, were found to be unaware of the condition known as gestational diabetes. The researchers attributed these findings to the fact that inadequate information was provided throughout the prenatal therapy.

[Feyisayo and Satwinder \(2022\)](#) state that as a result, there is an urgent need for the improvement of education on public health. For the screening process for gestational diabetes in Nigeria to be effective, several challenges must be addressed. Late prenatal concerns, the absence of defined guidelines, limited training among healthcare practitioners, and restricted access to diagnostic resources are some of the challenges that need to be overcome. According to [Lucius et al. \(2022\)](#), these traits make it more difficult to diagnose and treat signs of gestational diabetes at an earlier stage. This applies to both the diagnosis and treatment of the condition.

The Nigerian healthcare system has a challenge in the form of inadequately qualified workers, notably dietitians and health educators. These professionals are essential for the treatment of gestational diabetes via lifestyle modifications. The study conducted by [Azeez and Abo in 2020](#) indicates that the high cost of healthcare and medications is another reason that hinders a significant number of individuals from accessing the most effective therapy currently available. Women who have been diagnosed with gestational diabetes in Nigeria do not have access to a comprehensive postpartum follow-up program. This is a shortcoming in the country's healthcare system. [Imoh et al. \(2023\)](#) found that inadequate monitoring and management after delivery were caused by a lack of communication among healthcare staff and a lack of clarity about who was responsible for post-testing counseling. Both of these factors contributed to the absence of adequate medical treatment.

In Katsina State, which is situated in Nigeria, the high incidence of gestational diabetes is a serious problem that has an impact on the public health conditions that are present there. Although there is a lack of specific data for the state of Katsina, research from other locations of Nigeria provides insight on the elements that contribute to this problem. This is despite the scarcity of data for the other regions. There are a number of factors that contribute to the prevalence of gestational diabetes in pregnant mothers ([Ashiru & Umar, 1920](#)). Some of these factors include a lack of knowledge, insufficient self-care habits, and limited access to information on the illness.

The results of an exhaustive study and meta-analysis indicate that the prevalence of gestational diabetes among pregnant women in Nigeria varies from 0.5 percent to 38 percent, with a pooled prevalence of 11.0 percent. This information was derived from the study's conclusions. It was anticipated that the incidence would be 13% in the North-West geopolitical zone, which includes Katsina State due to its geographical position. Based on the findings of [Taoreed et al. \(2021\)](#), the high prevalence of the illness emphasizes the need of establishing targeted therapies in the region.

According to the findings of a number of studies, a sizeable majority of pregnant women in Nigeria are unaware of the illness that is referred to as gestational diabetes. One study that was conducted in Warri, which is situated in the state of Delta, found that the majority of women who were expecting were unaware that gestational diabetes was a distinct health concern that was related with pregnancy. This was the finding of the study. According to

[Feyisayo and Satwinder \(2022\)](#), this lack of understanding may result in a delay in diagnosis and treatment, which in turn has the potential to increase the risk of consequences. In other words, this delay may raise the risk of consequences.

In most cases, poor self-care habits among pregnant women are the result of a lack of information of gestational diabetes that pregnant women have with relation to the condition. Because pregnant women did not have access to sufficient information, they were unable to adhere to the recommended dietary requirements, physical activity, or glucose monitoring, all of which are crucial for the treatment of gestational diabetes. The lack of structured education programs during prenatal care visits is a factor that, according to [Feyisayo and Satwinder \(2022\)](#), contributes to the fact that this disease is much more difficult to treat. There is no possible way to overestimate the significance of healthcare practitioners when it comes to educating pregnant women about gestational diabetes. Studies have indicated that a sizeable proportion of prenatal healthcare professionals in Nigeria have a reasonable degree of awareness about hyperglycemia in pregnancy; nevertheless, they have a limited comprehension of the criteria for testing and management. In accordance with the findings of [Lucius et al. \(2023\)](#), the existing knowledge gap among healthcare practitioners makes it challenging to provide pregnant women with appropriate education and counseling. Because of this divide, pregnant women have a more difficult time gaining access to information that is very important about gestational diabetes.

According to the Centers for Disease Control and Prevention ([2024](#)), this strategy is structured to teach and empower individuals or communities to adopt healthy behaviors, improve health outcomes, and reduce the risk of illness. An example of such an approach would be a program that educates people about health. These programs often focus on targeting specific health issues, demographics, or environments, such as schools, workplaces, or communities ([WHO, 2024](#)). According to [Nguyen and Smith \(2024\)](#), the process of conducting a needs assessment to determine which health issues are of the utmost importance, establishing objectives and goals that are SMART (specific, measurable, attainable, relevant, and time-bound), designing interventions based on evidence-based strategies, putting into action activities such as workshops, campaigns, or peer education, and evaluating the effectiveness of the program in order to guide improvements are all essential steps.

In Katsina State, Nigeria, the development of health education programs for diabetic pregnant women is of the highest significance due to the tremendous health problems that are produced by gestational diabetes to both the mothers and their babies. These concerns affect both the mothers and their newborns. Furthermore, hypertension, macrosomia, and a higher risk of developing type 2 diabetes later in life are all repercussions that are associated with gestational diabetes (Ashiru, & Umar, 2024). Other implications include an increased likelihood of developing type 2 diabetes. The illness known as gestational diabetes is one that affects women who are pregnant.

A nursing intervention program in Lagos led to a significant improvement in participants' knowledge scores, which increased from 28% before the intervention to 83% after the intervention. This provides evidence that organized educational programmes are effective in achieving their intended goals (Ademuyiwa *et al.*, 2016).

There is a link between the degree to which diabetic pregnant women stick to their dietary and medication choices and the socioeconomic restrictions that they face, such as having a low income and limited access to healthcare facilities. An investigation revealed that dietary compliance was poor, particularly with respect to the consumption of high-cholesterol meats and sweets. The investigation's conclusions were disclosed. In contrast, the majority of patients were quite compliant with their prescription regimens. According to Kio *et al.* (2015), characteristics that positively influenced compliance included age, educational level, and a family history of diabetes. Additionally, the individual's family had a history of diabetes.

Purpose of the Study: To determine the effect of health education programme on the self-care practice of diabetic antenatal mothers in general hospitals of Katsina State.

Research Hypotheses:

1. There is no significant difference in the self-care practices of diabetic antenatal mothers between the control and experimental groups after the health education program.
2. There is no significant relationship between educational level, knowledge of gestational diabetes, and self-care practices of diabetic antenatal mothers in the experimental group.

MATERIALS AND METHODS

Research design

A quasi-experimental (pre-test/post-test) design was utilized in this study. The effect of the independent variable (Health education

programme) on the dependent variable (Self-care practice) was assessed.

Population

The population of this study comprised 281 medically registered diabetic antenatal mothers in the fourteen (15) General hospitals of Katsina State, Nigeria, within the period of September to December, 2024 (Katsina State Hospital Service Management Board, 2024).

Sample and Sampling Technique

The sample for this study consisted of 65 diabetic antenatal mothers purposively selected from the two General Hospitals (Batsari and Mani GH) in Katsina State, Nigeria. Mani General Hospital with 40 diabetic antenatal mothers was placed under experimental group while Batsari General Hospital with 25 diabetic antenatal mothers was placed under control group. Mani and Batsari general hospitals were selected as the sample for the study because they have a high number of medically registered diabetic antenatal mothers, and the antenatal mothers in these selected hospitals are willing to participate in the study and are in stable condition.

Instrumentation

A semi-structured knowledge questionnaire was used as a research tool in this study, which was adopted from Hussain, (2013). The questionnaire is a 4-point Likert scale consisting of strongly agree, agree, disagree, and strongly disagree. Face and content validity of the questionnaire were established through consultation with experts in the fields of measurement and evaluation, nursing, and health education. The reliability of the instrument was established through a test-retest procedure, which yielded a coefficient of 0.93.

Procedure for Data Collection

The Ethical Committee of the Katsina State Ministry of Health and the Katsina State Hospital Service Management Board were presented with an introductory letter obtained from the Registrar of the Federal University, Dutsinma. A letter of authorization was then sent to the two general hospitals participating in the study by the Katsina State Hospital Service Management Board (KSHSMB). Before the questionnaire was distributed, the diabetic pregnant women gave their informed consent. To help the respondents understand and cooperate, the consent form was translated into Hausa.

Data analysis

The independent t-test and Pearson correlation coefficient (PCC) were used to test the hypotheses one and two, respectively, at the 0.05 level of significance.

RESULTS AND DISCUSSION**Demographic Information of the Respondents**

Table 1 indicated that 10.0% of respondents were below 20 years old, 50.0% were 20-29 years old, 40.0% were 30-39 years old, while none of the respondents were 40 years and above. Furthermore, the table revealed that 50.0% of the respondents hold a Primary school certificate, 25.0% have a Secondary school certificate, and 15.0% have a Diploma/Certificate, while 10.0% have non-formal education. Moreover, the table indicated that 35.0% of respondents were from rural areas, while 65.0% were from urban areas. Additionally, the table indicated that 95.0% of respondents practice Islam as their religion, while 5.0% practice Christianity. Additionally, the table indicated that 80.0% of respondents were Hausa, 5.0% were Yoruba, 5.0% were Igbo,

and 10.0% were others. Moreover, the table revealed that 25.0% of the respondents had Nullipara as their Parity, 20.0% had Primipara, while 55.0% had Multipara as their Parity. Furthermore, the table revealed that 15.0% of the respondents had a gestational age of 1-12 weeks, 60.0% had a gestational age of 13-27 weeks, and 25.0% had a gestational age of 28-40 weeks.

Hypothesis one

Ho1: There is no significant difference between the control and experimental group's self-care practice of diabetic antenatal mothers after the health education programme.

The experimental and control groups' scores were compared using an independent sample t-test to assess hypothesis three. The outcome is shown in Table 2.

Table 1: Demographic Information of the Respondents in the Experimental Group

Item	Response	Frequency	Percent
Age in years	Below 20 years	4	10.0
	20-29 years	20	50.0
	30-39 years	16	40.0
	Total	40	100.0
Educational status	Primary school	20	50.0
	Secondary school	10	25.0
	Diploma/Certificate	6	15.0
	Non formal education	4	10.0
	Total	40	100.0
Residence	Rural	14	35.0
	Urban	26	65.0
	Total	40	100.0
Religion	Islam	38	95.0
	Christianity	2	5.0
	Total	40	100.0
Parity	Nullipara	10	25.0
	Primipara	8	20.0
	Multipara	22	55.0
	Total	40	100.0

Table 2: t-test Analysis of the Post-test Mean Scores for self-care practice among antenatal mothers in the Experimental and Control Groups

Group	N	Mean	Std. Deviation	t-value	Df	p-value	Decision
Experimental	40	32.38	5.476	30.208	63	.000	Significant
Control	25	13.03	3.222				

According to Table 2, the calculated t-value was 30.208, and the observed p-value was 0.000. The study rejected the null hypothesis, indicating that there is a significant difference between the control and experimental groups' self-care practices of diabetic antenatal mothers after the health education program, because the

obtained p-value of 0.000 is less than the alpha value of 0.05 ($P = 0.000 < 0.05$). The conclusion suggests that after the health education programme, there is a substantial change in the self-care practices of diabetic pregnant women between the experimental and control groups.

Hypothesis two

HO2: There is no significant relationship between educational level, knowledge of gestational diabetes and self-care practices of the diabetic antenatal mothers in the experimental group

Table 3: Correlation analysis of educational level, knowledge of gestational diabetes and self-care practices of diabetic antenatal mothers in the experimental group.

		educational level	knowledge of gestational diabetes	self-care practice of diabetic antenatal mothers
Educational level	Pearson	1	.309	.457**
	Correlation			
	Sig. (2-tailed)		.052	.003
Knowledge of gestational diabetes	N	40	40	40
	Pearson	.309	1	.535**
	Correlation			
Self-care practice of diabetic antenatal mothers	Sig. (2-tailed)	.052		.000
	N	40	40	40
	Pearson	.457**	.535**	1
	Correlation			
	Sig. (2-tailed)	.003	.000	
	N	40	40	40

The Table 3 presents a correlation matrix for three variables: educational level, knowledge of gestational diabetes and self-care practices of diabetic antenatal mothers. The Pearson Correlation (r) value indicates the strength and direction of the linear relationship between two variables, while the Sig. (2-tailed) value represents the p -value, which is used to determine statistical significance. A p -value less than 0.05 generally indicates a significant relationship. For Educational Level and Self-Care Practice, the Pearson Correlation is 0.457, and the p -value is 0.003. Since 0.003 is less than 0.05, there's a significant positive relationship between these two variables. This suggests that as educational level increases, self-care practices also tend to improve. For Knowledge of Gestational Diabetes and Self-Care Practice, the Pearson Correlation is 0.535, and the p -value is 0.000. Since 0.000 is less than 0.05, there's a significant positive relationship between knowledge and self-care practices. This indicates that better knowledge of gestational diabetes is associated with better self-care practices. However, the hypothesis two is rejected for the relationships between: Educational level and self-care practices ($p = 0.003$, which is significant) and Knowledge of gestational diabetes and self-care practice ($p = 0.000$, which is significant).

DISCUSSION

The results of the first hypothesis demonstrated that, after the conclusion of the health education program, diabetic pregnant women in the experimental group participated in self-care activities that were significantly different from those of the control group. This was demonstrated by the fact that the experimental group engaged in the activities. The significant difference in post-test mean scores for self-care

practices between the experimental group and the control group, favoring the experimental group, is an indication of the intervention's effectiveness in promoting greater self-care behaviors among expectant mothers. The control group did not have this difference. Behavioral and educational interventions have the potential to have a transformational impact on assisting pregnant women to actively regulate their health, especially in situations where gestational diabetes is widespread. The outcomes of this research indicate this potential influence. This finding was in line with the findings of [Rasha et al. \(2022\)](#), [Elshaima et al. \(2020\)](#), and [Thomas \(2017\)](#), which demonstrate that health education intervention significantly improves self-care practice, particularly in high-risk conditions such as gestational diabetes, by increasing knowledge, confidence, and practical skills within the individual. This finding was consistent with the findings of these scientists. [Glanz et al. \(2015\)](#), who stated that treatments incorporating behavior-change theories, such as the Health Belief Model or Social Cognitive Theory, have been proven to induce long-term improvements in self-care habits, were also in accord with the results of this research. This study was conducted to investigate the effects of such interventions on self-care adherence. The findings of the second hypothesis indicated that, educational level and knowledge of gestational diabetes are important factors influencing the self-care practices of diabetic antenatal mothers. The significant positive correlations suggest that interventions aimed at improving education and knowledge could lead to better self-care behaviors. This contradicts the initial hypothesis which proposed no significant relationships between these variables.

CONCLUSION

The findings of this research indicate a substantial disparity between the experimental group and the control group i.e. the intervention was helpful in improving the self-care behaviors of pregnant mothers who were coping with gestational diabetes. Hence, this research illustrates the value of teaching programs that are both narrowly targeted and highly structured, as these programs are a crucial component of prenatal care. Moreover, the findings also concluded that the educational level and knowledge of the gestational diabetes could determine the self-care behaviors of diabetic antenatal mothers in relation to the care and management of the condition.

RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

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