Original Article

Healthy Babies Matter: A Qualitative Study on Midwives' Views of Preconception Care for Women Diagnosed with Diabetes

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Abstract

Introduction: Diabetes mellitus constitutes a risk factor for pregnancy outcomes. Maternal, fetal, and neonatal complications such as miscarriage, large for gestational age, low birth weight, stillbirth, neonatal mortality, prolonged neonatal hospital stays, and caesarean delivery are more common in pregnant mothers with uncontrolled diabetes mellitus. Preconception Care (PCC) helps mothers have healthy babies, as it minimizes the majority of unfavorable pregnancy outcomes. However, preconception care is yet to be routinely offered to pregnant women with diabetes mellitus in Nigeria. This study explores Midwives' views on the provision of PCC for women of reproductive age with DM.

Aim: To examine midwives' views on PCC and strategies for the provision of PCC for women with diabetes mellitus.

Methodology: The study employed an exploratory qualitative design, utilizing semi-structured interviews for data collection and a purposive sampling technique for selecting midwives.

Results: Three themes and seven sub-themes emerged from the data. The main themes were Essential care for promoting safe motherhood, strong government involvement in establishing PCC and required resources for PCC provision.

Conclusion: PCC is an essential part of obstetric care for all expectant mothers, and accommodating the care into the existing antenatal care (ANC) needs to be considered a matter of priority for reproductive-aged women with diabetes for safe motherhood. The study highlights that the provision of PCC would help women who intend to conceive make an informed decision about their condition and prepare for a healthy pregnancy outcome. Active participation by the government would assist in providing effective PCC to all women of reproductive age with diabetes who are aspiring to conceive.

Key Words: Midwives, Perspective, Preconception Care, Women, Diabetes, Healthy babies and Qualitative study

Introduction

For decades, the rise in the prevalence of diabetes mellitus has been a concern for public health. Globally, 783 million people are projected to have diabetes by 2045 if urgent measures are not implemented to combat this alarming rise in the prevalence of diabetes (International Diabetes Federation (IDF), 2021). This dramatic increase in the prevalence of diabetes cuts across all IDF regions. Notably, in the African region, especially in Nigeria, the most populous country, the prevalence of diabetes among the adult population was estimated to be 3.7% (IDF, 2021 cited as in A. K. Omowunmi et al., 2023). The country recently had a spike in diabetes prevalence of 7.0%, which is nearly double the rate reported by the IDF in 2021 (Olamoyegun et al., 2024), indicating a sharp increase in diabetes cases in recent times. Similarly, the World Health Organization (WHO) (2016) estimated the prevalence of diabetes among adult citizens in Nigeria to be 4.3%, indicating that reproductive-age women are among the vulnerable groups impacted by the condition. Therefore, there is a need to curb the trend of this non-communicable disease among this group because of the associated mortality and morbidity.

Diabetes poses a significant threat to a healthy pregnancy and causes morbidity and mortality for the mother, fetus, and neonate. Murphy et al., (2021) reported that poor control of pregestational diabetes in pregnancy causes fatal outcomes such as spontaneous abortion, low birth weight, macrosomia, perinatal infant death, caesarean section and neonatal admission. Congenital disability was marked to contribute to pregnancy complications in mothers with pre-existing diabetes (Tinker et al., 2020). Likewise, neonatal hypoglycemia, appearing within a few hours after birth in neonates of diabetic mothers, leads to irreversible neurological damage and future developmental delay (Voormolen et al., 2018). Additionally, the risk of stillbirth was found to be two times higher among Nigerian women with diabetes (WWD) than their counterparts (Jerome U Ebubechukwu et al., 2019). WWD should not feel anxious about pregnancy journeys and outcomes; it does not have to hinder their motherhood plans. They can achieve better pregnancy results with proper diabetes management and preconception care (PCC). Based on this, one can justify St. Vincent's 1989 declaration that the obstetric outcomes for WWD should be nearly comparable to those without diabetes (Diabetes Care, 1990).

Attending PCC is important for expectant mothers with diabetes due to its associated benefits, including optimizing glucose levels for a healthy pregnancy and the well-being of neonates. Previous studies revealed that women who received PCC services had better pregnancy planning and childbirth outcomes. According to Yamamoto et al. (2018), improvements in pregnancy preparation were noted among women with type 2 diabetes who attended a community-based pre-pregnancy programme. Similarly, Wahabi et al. (2020) stated that pre-pregnancy care (PPC) reduces the rate of pre-term birth, congenital anomalies and neonatal hospital admission into the intensive care unit. Thus, the American Diabetes Association (ADA) (2019) recommended that all potential WWD aspiring to conceive should have glycated haemoglobin (A1C) lower than 6.5% to prevent pregnancy complications. Based on this, the justification could be that optimizing glucose levels before pregnancy through PCC leads to healthier birth outcomes.

Providing well-structured PCC is an unattainable milestone for the Nigerian government, particularly in terms of delivering good maternal and healthcare services to reproductive-aged WWD (Asafa et al., 2023). However, antenatal care (ANC) is the most common and widely used entry point for obstetric care for women living with diabetes. This primary form of care aims to lessen perinatal and maternal morbidity and mortality, thus focusing on improving pregnancy outcomes (WHO, 2016). But the care failed to provide the earliest care that is needed prior to pregnancy for WWD. This failure results in irreversible damage to the developing foetus,

noticeable after birth. In a mother with diabetes, excess glucose crosses the placenta. It acts as a catalyst for rapid metabolic pathways, leading to oxidative stress in the developing embryos, causing fetal asphyxia, hypoxia, and perinatal death (Grzeszczak et al., 2023; Desoye & Carter, 2022). Similarly, a study conducted by John et al. (2020) reported that diabetes-exposed infants were macrosomic and admitted into the neonatal special care baby unit for early care treatment to prevent neonatal morbidity and mortality. Likewise, neonatal hypoglycemia, respiratory distress syndrome and fetal macrosomia were marked pregnancy complications among infants born to diabetic mothers (Ifunanya et al., 2019). Furthermore, maternal diabetes was significantly associated with the admission of neonates into intensive care units (Deji Ajiboye et al., 2024). PCC addresses these adverse pregnancy outcomes for prospective childbearing women living with diabetes in Nigeria.

Midwives play significant roles in identifying pregnancy risk factors and disseminating the importance of PCC to women and seeking their insightful views on the PCC and facilitators of the provision of PCC for women of reproductive age diagnosed with diabetes is crucial. Hence, this study aims to:

1. Explore the perspectives of midwives on PCC for women of reproductive age diagnosed with diabetes.
2. Identify the factors that would facilitate the provision of PCC for women of reproductive age diagnosed with diabetes.

Methodology

Philosophical Underpinning: A research worldview represents a philosophical framework or belief that underpins a study (Gordon, 2016). This paper is guided by the constructivism paradigm, in which reality is not assumed to be based on objectivity. It is rather construed by the diverse views of the individual participants (Polit, & Beck, 2014). The researchers opted for the constructivist worldview because it provides subjective meanings to participants' opinions, which are multiple and varied.

Study design: This qualitative research study employed an exploratory design to investigate midwives' views on the preconception care (PCC) provision for reproductive-age WWD. The approach examines an under-researched phenomenon of interest (Stebbins, 2001). The concept of PCC services has not been extensively studied within the context of obstetrics care offered to prospective pregnant mothers with diabetes in Nigeria. This justified the chosen design in providing answers to the research questions. Thus, the provision of PCC for women of reproductive age diagnosed with diabetes needs to be investigated, and the midwives, whose roles are to ensure safe pregnancy and delivery, are marked to answer the research questions.

Study Setting: The study was conducted at Lagos University Teaching Hospital (LUTH), the largest federal specialist hospital in Nigeria, with over 950 beds. It offers various specialized units, including Obstetrics and Gynaecology, Oncology, Ophthalmology, Maternal Health, Mental Health, and Urology, staffed by a team of medical and paramedical professionals. The hospital serves as a referral centre for medical cases in Southwest Nigeria and beyond (LUTH, 2025).

Sampling and Participant Characteristics: This study used a criterion sampling method to select the midwives from the endocrine, obstetrics, and gynaecological units of LUTH. This method ensures that participants meet predetermined standards relevant to research questions (Patton, 2015). Thus, it selects participants who merit the predetermined standards to address the research questions. Only midwives with at least five years of work experience in these units were included, while those with less experience or unstable health conditions were excluded. Additionally, the selection is based on the ability of the key informant to provide information-rich data (Patton, 2002).

Data Collection: Data was collected using semi-structured interviews between February and August 2020. Stebbins, (2001) stated that observation is a valuable method for exploring a phenomenon of interest, while an interview is a more targeted approach to exploration. The

researchers opted for a semi-structured interview to elicit rich data from participants, thus placing an advert on the information board to invite midwives to participate. The researchers formulated the interview guide after a comprehensive literature review of the topic, which aligned with the research questions. Kvale, (1996) argued that the interview guide shows the study topic and the interview sequence. Noteworthy, interview guide was piloted in a setting with similar features to ascertain its reliability as recommended by (Kvale, 1996). Polit & Beck, (2012) mentioned that a pilot study is a mini-scale version of a study designed to test the instrument to prevent a large-scale research's ''expensive fiasco''. Table 1 presents an example of the final version of modified interview questions. Participants were given the option to choose a convenient location, date, and time for the interview session. The principal investigator (PI) conducted the interview sessions in English, each lasting 45 to 60 minutes. With the participants' consent, interviews were digitally tape recorded, and daily field notes were taken. Data saturation was reached at six (6) participants, as no new information emerged, and responses were observed to be repetitive (Stebbins, 2001). The PI did the verbatim transcription of the recorded interviews, while all researchers contributed to data analysis. There was no prior relationship with participants. The PI, a PhD in Nursing and trained in qualitative research, maintained a professional code of conduct during the interviews.

Data Analysis: Analysis occurred while the data collection was still ongoing; the auto-recorded data was immediately transcribed verbatim by the first author, and daily field notes were integrated to ensure no information was omitted. A unique identification (ID) was assigned to each participant for anonymity, denoted as M1. Data was analyzed thematically using the six phases described by (Braun & Clarke, 2006). That is, familiarizing with data, generating codes, searching for themes, reviewing themes, defining and naming themes, and reporting. The analysis used a hybrid of inductive and deductive methods to elicit themes (Fereday et al., 2006). However, the approach for the analysis was primarily inductive. All the researchers reached mutual agreement on the themes generated. Table 4 presents the thematic template for the generated theme. An inter-rater reliability check of the generated themes was carried out by two independent raters who were not part of the study to improve the study's credibility (Marques & McCall, 2005).

Trustworthiness: Trustworthiness has become a crucial concept in qualitative research. This study's data is based on four concepts of trustworthiness provided by Lincoln & Guba, (1985). That is credibility, transferability, dependability and confirmability. Based on the constructivism paradigm that underpins this study, a fifth construct of trustworthiness of authenticity was added (Guba & Lincoln, 1994).

Credibility: According to Holloway & Wheeler (2010), credibility of data in qualitative research hinges on using appropriate methods, prolonged participants' engagement and rapport building. A suitable design method was chosen to address the research question. The study approach provides comprehensive insights into the topic. Researchers also spent considerable time observing various aspects of the setting, engaged with participants, and familiarized themselves with the context. Furthermore, the reliability of themes through an interrater check adds trustworthiness to the emerged themes (Marques & McCall, 2005). To ensure this, an interrater reliability check was performed by two independent raters who reviewed the data analysis. This process added trustworthiness to the themes generated. Notably, the two raters were experts in the field of study and had experience in qualitative research. Table 5 provides templates for interrater reliability checks.

Transferability: To ensure the transferability of this study, researchers provided details of the research participants, research design, data collection, and analysis. Furthermore, the study participants were experienced midwives who made insightful contributions to the research objectives.

Dependability: A comprehensive explanation of all the steps involved in the research process is provided to enable the study's dependability. Likewise, the researchers outlined the research design, explained how the research was conducted, and presented a detailed explanation of the data collection and analysis process.

Confirmability: The researchers maintained this principle of trustworthiness throughout the data analysis by carefully presenting participants' verbatim in their original language. This ensured the authenticity of the analysis, allowing the data to speak for itself. This enriches the study's trustworthiness.

Authenticity: Polit and Beck, (2014) stated that the authenticity is the degree to which the researchers present all the realities of the phenomenon in a fair and faithful manner. The researchers ensured rigorous sampling techniques to select a study population that provided subjective opinions. Afterwards, participants' feelings will be vividly reported based on their perspectives on the topic.

Ethical considerations: The LUTH Health Research Ethics Committee approved the study with reference number ADM/DCST/HREC/APP/3504, dated 14-02-2020. Participants were informed, and their voluntary participation was obtained through a written consent form. The research adheres to the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist for qualitative research.

Table 1: Interview Questions

S/N	Main Questions	Probe Questions
1	What is your understanding of preconception care (PCC) Provision?	a) Women with diabetes, what do you consider PCC to be for them? b) What is your opinion on the significance of PCC for women with diabetes who are planning to conceive? c) What risks are associated with uncontrolled diabetes in pregnancy? d) Literature indicates the absence of well-established PCC clinics in Nigeria. What are your perspectives on the uptake of the PCC services?
2	What are the facilitators of the provision of PCC for women of reproductive age diagnosed with diabetes?	a) How can healthcare professionals prepare to deliver the care? b) What measures should be implemented to ensure that women of reproductive age with diabetes make use of the PCC provision?

Table 2: Demographic information of the midwives (n=6) Participants

Pseudonym	Gender	Services Duration (Years)	Professional background
M1	Female	33	RN, RM, DE, RA&E
M2	Female	27	RN&RM
M3	Female	28	RN,RM& BNSC
M4	Female	28	RN&RM
M5	Female	26	RN&RM
M6	Female	30	RN&RM

RN Registered Nurse, RM Registered Midwife, DE Diabetes Educator, RA&E Registered Accident and Emergency

Table 3: Summary of the themes and sub-themes with illustrative quotes for the participants

1. Main themes	Sub-themes	Quote/ Source	Remark
Essential care for Promoting safe motherhood	Risk identification	‘‘…may be during the routine checkup and there is anything we find anybody who is a diabetic before pregnancy. We refer them to that place to referral…’’ (M1)	The participants described the provision of PCC as an opportunity for women to have a good glucose level, plan their pregnancy, and identify and address the risk factors of pregnancy. This provision will enhance the well-being of the mother, the unborn foetus and the newborn.
	Glucose optimization	‘‘…glucose level is within the normal range,…before they conceive…’’ (M2)	
	Pregnancy planning	‘‘…let them understand how to plan not just getting pregnant, how to plan and be prepared …’’ (M6) ‘‘…you are known diabetic woman, you need to seek the advice of your physician before you get pregnant…’’ (M2)	
Strong government involvement in establishing PCC	Formulate a policy to complement the existing care	‘‘…if it can get a way of the government, getting more involve in it…’’(M4) ‘‘…there should be a policy that should be instituted, such that preconceptional care would be emm would be emm an established norm as in, it is a necessity a part of the component of obstetrics care. So it should be made mandatory…’’(M3)	Participants viewed the provision of PCC as the government's responsibility by encouraging government involvement and making the care a compulsory component of obstetrics care
Required resources for the PCC provision	Increase health workforce	‘‘…for the health workers the government should try and employ more of the health worker… so have enough hands to work very well,…’’(M5)	Participants expressed strategies to facilitate the PCC provision, including, but not limited to, additional health personnel employment, regular refresher courses for health workers and training of new staff, a conducive office space,
	Continue medical education/ training.	‘‘…The health care professional to have to be trained concerning it.	

		Lectures and seminars should be given…'' (M2) ''…for training, seminars, refresher courses, you will be able to equip yourselves so that you can provide information on new trends in preconceptional care…'' (M3)	government subsidy on diabetes care treatment, and improved medical resource financing.
	Physical infrastructure and medical resources	''build more structure because presently what we have are overwhelmed …''(M5) ''…give us equipment, they can supply the equipment what is needful,..make the drug available for them you know anything that it is needed you know like HIV…'' (M6)	

Table 4: The thematic template for the generated theme.

Research Objective 1: To explore the perspectives of midwives on PCC for women of reproductive age diagnosed with diabetes					
S/no	Part.	Excerpt from participants	codes	Categories	Themes
1	M2 M5	*"what I know about it is that if you are known diabetic, is to make sure that glucose level is within the normal range,…before they conceive…because baby of diabetic mother are prone to so many complications…big babies, hypoglycemia or is either hypo or hyperglycemia either of the two and prone to abortion, abortion as well and some other congenital abnormalities… "(M2)* *"…It is very **necessary** because it makes them to prepare.,,haa if you have diabetes and you get pregnant you will have big baby, and the big baby can cause tear, can cause death, can cause all those thing, so*	Glucose level must be within normal limit ***'Necessary'*** for diabetic mother	Blood glucose monitoring Important care	*Essential care for promoting safe motherhood*

		for them to come for pre, haa for them to come for that emm pre emm preconceptional that preconceptional care, we need, it is very important,..." (M5)			
2	M4	"…*Emm, government naa ni (**it is the government**. If the* government *makes provision, there are provision on ground, it will be easy, funding should be made available on the part of government ... health insurance scheme to cover for the care .. if possible, it should be free ..." M4 .*	***"it is the government"***	Government responsibility	*Strong government involvement in establishing PCC*
	M3	*"there should be a policy that should be instituted, such that preconceptional care would be emm would be emm an established norm as in, it is a necessity a part of the component of obstetrics care. So it should be made mandatory..."(M3)*	***Government policy to establish PCC as a norm***	Mandatory care by the Government	
Research objective 2: To identify the factors that would facilitate the provision of PCC for women of reproductive age diagnosed with diabetes					
3	M5	*"...for the health workers the government should try and **employ more of the health worker**... so have enough hands to work very well,..."(M5)*	***'employ more of the health worker'***	More skilled healthcare workers	*Required resources for the PCC provision*
	M2	*"...The health care professional to have to be trained concerning it. Lectures and seminars should be given..." (M2)*	Continuous medical education	Training of healthcare professionals	
	M3	*"...so the government has to come up and do something about it, create awareness and then also **fund the existing facilities and create more facility and then train personnel to have more knowledge about the new thing,** the current thing in the management of diabetes in pregnancy, very important government has a role to play...."(M3)*	***"fund the existing facilities and create more facility and then train personnel to have more knowledge about the new thing"***	Resources for PCC	

Table 5: Interrater reliability check template

Research Objective 1: To explore the perspectives of midwives on PCC for women of reproductive age diagnosed with diabetes									
Interview question	Themes	Categories	Verbal support		Rater 1		Rater 2		Comment
					Agree	Disagree	Agree	Disagree	
1) What is your understanding of preconception care (PCC) Provision?	*Essential care for promoting safe motherhood*	Blood glucose monitoring Important care	M2	*"what I know about it is that if you are known diabetic, is to make sure that glucose level is within the normal range,...before they conceive...because baby of diabetic mother are prone to so many complications... big babies, hypoglycemia or is either hypo or hyperglycemia either of the two and prone to abortion, abortion as well and some other congenital abnormalities* *"...It is very* ***necessary*** *because it makes them to prepare.,,haa if you have diabetes and you get pregnant you will have big baby, and the big baby can cause tear, can cause death, can cause all those thing, so for them to come for*	√		√		
			M5						

				pre, haa for them to come for that emm pre emm preconceptional that preconceptional care, we need, it is very important,...”					

Results

The study "Healthy Babies Matters for Women of Reproductive Age Diagnosed with Diabetes" was conducted among six midwives. Their sociodemographic data is presented in Table 2 below.

Three themes and seven sub-themes emerged from the data, as displayed in Table 3. The first two themes, *Essential care for promoting safe motherhood and strong government involvement in establishing PCC,* highlighted the perspectives of midwives on PCC for women of reproductive age diagnosed with diabetes. The third theme, *required resources for the PCC provision,* was identified as a factor for PCC provision for this group of women.

Theme 1: Essential care for promoting safe motherhood

When asked to explain what they understand PCC to be. The consensus among the majority of the participants highlighted that PCC serves as a health evaluation for WWD before conception. The concept is essential for monitoring and managing their disease condition and addressing potential risk factors in preparation for favourable pregnancy outcomes.

> *‘‘what I know about it is that if you are known diabetic, is to make sure that glucose level is within the normal range,…before they conceive…because baby of diabetic mother are prone to so many complications…big babies, hypoglycemia or is either hypo or hyperglycemia either of the two and prone to abortion, abortion as well and some other congenital abnormalities…’’ (M2)*

> *preconception care to my understanding is that emm a known diabetes patient that it is trying to get pregnant, that what are the care you need to give such a patient, in preparation with the pregnancy coming in… (M6)*

One participant stated that PCC is marked as a referral centre for women diagnosed with diabetes during the clinic examination for further assistance.

> *‘‘...may be during the routine checkup and there is anything we find anybody who is a diabetic before pregnancy. We refer them to that place to referral.’’ (M1).*

All the participants stated that WWD are at risk of pregnancy complications.

> *‘‘...baby of diabetic mothers are prone to so many complications like emm what do we call it, big babies, hypoglycemia or is either hypo or hyperglycemia either of the two and prone to abortion, abortion as well and some other congenital abnormalities…’’ (M2).*

To mitigate adverse outcomes among women living with diabetes, consensus among participants is that PCC is essential care for these women. The care will help them gain a better understanding and control of their condition, promoting a healthier pregnancy.

''...It is necessary. Me, why I feel it is necessary is because you know, when they had one, two, three talk about the whole thing, at least they have insight, you understand, they will have had insight to the condition or to the situation at hand…'' (M4).

''...It is very necessary because it makes them to prepare.,,haa if you have diabetes and you get pregnant you will have big baby, and the big baby can cause tear, can cause death, can cause all those thing,...pre emm preconceptional that preconceptional care, we need, it is very important,...'' (M5).

''...preconception care is very very essential for them to prevent the complication we see in pregnancy…'' (M6).

Theme 2: Strong government involvement in establishing PCC

The provision of PCC falls under the responsibility of the government. Participants indicated that only the government can facilitate the provision of PCC by providing the essential resources necessary for its actualization.

''*…Emm, government naa ni (it is the government). If the* government *makes provision, there are provision on ground, it will be easy, funding should be made available on the part of government ... health insurance scheme to cover for the care .. if possible, it should be free ...'' (M4).*

''...there should be a policy that should be instituted, such that preconceptional care would be ...established norm as in, it is a necessity a part of the component of obstetrics care. So it should be made mandatory…''(M3).

Theme 3: Required resources for the PCC provision

Participants echoed that adequate resources, such as a conducive physical structure, uninterrupted supply of medical equipment, increased staff strength and training, should be in place for the realization of PCC.

''...build more structure because presently what we have are overwhelmed…'' (M5).

''..for the health workers the government should try and employ more of the health worker... so have enough hands to work very well,…''(M5).

''...The health care professional to have to be trained concerning it. Lectures and seminars should be given…'' (M2).

''...so the government has to come up and do something about it, create awareness and then also fund the existing facilities and create more facility and then train personnel to have more knowledge about the new thing, the current thing in the management of diabetes in pregnancy, very important government has a role to play....'' (M3).

''...give us equipment, they can supply the equipment what is needful,..make the drug available for them you know anything that it is needed you know like HIV…'' (M6).

Discussion

This study aimed to describe midwives' perceptions of the provision of preconception care (PCC) for WWD. The midwives reported that PCC is a key aspect of obstetrics care that should be offered to reproductive-aged women living with diabetes prior to conception. This finding is consistent with the report of (Kizirian et al., 2019). It was viewed that PCC is crucial for the category of women who are living with chronic illness, such as pre-existing diabetes. The care offers women opportunities to optimize their glucose levels for pregnancy in order to lessen birth complications (Atrash & Jack, 2020; Wahabi et al., 2020). Furthermore, the study's participants mentioned that the well-being of women living with diabetes

before, during and after pregnancy remains the focus of midwives; thus, it is imperative to engage expectant diabetic mothers with discussion on pregnancy planning, including contraceptive use. This finding agreed with the perception of Bellanca & Hunter, (2013), advocating on 'Would you like to become pregnant in the next year?'' for optimizing a healthy pregnancy. Planning for pregnancy includes being on contraception until blood sugar is normalized for conception (Britton et al., 2020).

This study's findings revealed that integrating PCC in the Nigerian healthcare system is within the government's prerogative. The active engagement of the government, through the availability of medical equipment, funding for diabetes care, and a robust health insurance scheme for WWD, was mentioned as crucial for providing PCC. This agreed with a study conducted in Morocco, which reported that the prevention and control of diabetes and its complications through subsidies by the government improves diabetes care (Dankoly et al., 2023). Additionally, participants suggested that the government should develop a policy to incorporate PCC as a mandatory component of obstetric care. It is imperative for health policymakers to prioritize plans aimed towards advocating normal glucose levels for expectant mothers through PCC (Ojifinni & Ibisomi, 2022; Wei et al., 2019). Also, enacting a PCC law by the Nigerian government for all reproductive-aged women would assist in mitigating adverse pregnancy outcomes linked with diabetes. ADA, (2018) declared PCC for all potential childbearing WWD to prevent unfavourable birth outcomes.

Participants expressed strategies required to facilitate PCC provision. They shared a unified opinion on establishing well-equipped facilities for PCC clinics, as the existing facilities are overburdened. This finding buttresses the view of Al-Alawi et al., (2019) reported that providing adequate diabetes care hinges on constructing more diabetes clinics. Furthermore, other strategies mentioned by participants include continuous training of midwives on PCC guidelines (Chutke et al., 2022; Maas et al., 2021), availability of more specialists, such as endocrinologists and diabetes educators (Letta et al., 2021; Nang et al., 2019). Also, adequate supply of medical consumables and equipment for diabetes care is a facilitator for the effectiveness of PCC provision (Calderon-Ticona et al., 2021; Tripathy et al., 2019).

Conclusion: Indeed, women with pre-existing diabetes planning for pregnancy should be offered PCC to lessen maternal and fetal morbidity and mortality, as communicated by the participants. Engaging the government, including ensuring the adequate availability of required resources, remains the driving force behind providing PCC. However, this study was limited to midwives and a federal teaching hospital in terms of setting. Future research could consider incorporating other state-owned hospitals and specialists, like endocrinologists, who can provide additional data on PCC provision for WWD. In the future, a mixed-method design could be explored to determine whether new findings on the PCC provision will emerge. Indeed, this study's findings contribute to the existing body of knowledge on midwives' perceptions and enablers of PCC provision for reproductive-aged WWD. It suggests that healthcare stakeholders at the state and federal levels formulate a policy on PCC as a compulsory component of obstetrics care and integrate PCC into the existing ANC. This will improve the care given to expectant mothers with underlying medical conditions, especially diabetes.

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