Doi: 10.35845/abms.2025.2.434

ORIGINAL ARTICLE

Advances in Basic Medical Sciences

Lived Experiences and Challenges of Multigravida Women with Gestational Diabetes Mellitus

Sibra Amjad[1] and Sonia Naeem*[2]

[1,2]: *Applied Psychology Department, Kinnaird College for women, Lahore, Pakistan.*

ABSTRACT

OBJECTIVES: To explore the lived experiences and challenges of the multigravida women with Gestational Diabetes Mellitus.

METHODOLOGY: Qualitative research design, with use of Phenomenological Approach was used. Semi-structured interview technique was employed to collect firsthand data from multigravida, on their experiences and challenges of pregnancy with GDM. A purposive sample of five participants were recruited from different hospitals in Lahore, with the age range between 25 to 35 years. After the collection of data, the interviews were transcribed and the data was analyzed through interpretative phenomenological analysis.

RESULTS: This results of the study highlights the multifaceted challenges faced by multigravida women with GDM, including emotional and physical burdens, mental health impacts, and difficulties in adhering to dietary and medical recommendations. It also sheds light on the coping strategies women adopt and the critical role of family and social support systems. Additionally, regular glucose monitoring and education emerged as essential components for managing GDM and ensuring a healthy pregnancy. Among these, disrupted mental health and the coping of GDM stood out as the most significant.

CONCLUSION: These findings underscore a holistic approach in GDM care—one that not only addresses medical management but also prioritizes psychological support and leverages social and spiritual resources. By highlighting these issues the study will be beneficial to raise awareness among women and professionals about the importance of dietary guidance, emotional well-being, social support and self-management, ultimately contributing to improved maternal care and better fetal health outcomes.

Keywords: Gestational diabetes mellitus, lived experiences, phenomenological approach, multigravida

*For Correspondence

Sonia Naeem

Assistant Professor, Applied Psychology Department, Kinnaird College for Women, Lahore, Pakistan.

Email:
sonia.naeem@kinnaird.edu.pk

Submission Date:4-05-2025
Acceptance Date:4-11-2025
Publication Date:31-12-2025

INTRODUCTION

Gestational diabetes, which also stands for Gestational diabetes Mellitus (GDM), is a medical condition which occurs in women who are pregnant and have high levels of blood sugar levels during pregnancy. In this condition, placenta releases a hormone which prevents the body to use insulin productively. It causes to build up in the blood and flow in blood stream instead of being absorbed by the cells in the body. Gestational diabetes isn't caused by the lack of insulin unlike type 1 diabetes, but the different hormones being produced during pregnancy makes it insulin resistance, making insulin very much less effective. This type of medical condition only occurs in pregnancy. Thus women are likely to develop type 2 diabetes and gestational diabetes in future pregnancies.[1]

Becoming mother is arguably one of the hardest and life changing moment for a women, as it is one of the most defining moments of their lives, which they get to experience. But with this gradual change over the nine months and with giving birth to the baby, the women experience many psychological and physiological changes during this process. Maternal health of a mother and infant baby weight during pregnancy are two of the most important determinants of perinatal health. GDM and macrosomia are significant perinatal concerns globally. GDM

This Article may be cited as Amjad S, Naeem S.Lived Experiences and Challenges of Multigravida Women with Gestational Diabetes Mellitus. Adv Basic Med Sci.2025;9(2): 71-81.DOI:https://doi.org/10.35845/abms.2025.2.434

poses short-term risks, including cesarean deliveries, infant trauma, and complications like hypoglycemia and hyperbilirubinemia. Long-term consequences include a 20-80% risk of developing Type 2 diabetes in women, characterized by impaired insulin production and usage, leading to abnormal blood sugar levels. Offspring are also at increased risk of future diabetes and obesity. [2]

The global prevalence of Gestational Diabetes Mellitus (GDM) is estimated at approximately 14%, with significant regional variation—ranging from 7.8% in Europe to 27.6% in the Middle East and North Africa.[3] In Pakistan, recent studies report a pooled prevalence of 16.7%, with regional rates ranging from 11.4% in Punjab to 35.8% in Balochistan.[4] Similarly, in Thailand, the prevalence has increased notably over the past two decades, reaching up to 22% in recent hospital-based data.[5] These variations underscore the growing burden of GDM globally, shaped by differing diagnostic criteria, lifestyle factors, and maternal demographics. Women diagnosed with gestational diabetes mellitus (GDM) face heightened risks of adverse maternal outcomes, including obesity, hypertensive disorders, stillbirth, perineal tears, and an increased likelihood of cesarean delivery. A comprehensive meta-analysis published in The BMJ in 2022 found that GDM significantly elevates the risk of cesarean delivery and hypertensive disorders during pregnancy.[6] Uncontrolled GDM can also adversely affect fetal health. Infants born to mothers with poorly managed GDM are at increased risk for complications such as macrosomia (excessive birth weight), shoulder dystocia, neonatal jaundice, respiratory distress syndrome, and early markers of cardiovascular diseases. These complications are often linked to maternal hyperglycemia during pregnancy.[7]

Beyond physical health, GDM has significant psychological implications. Recent studies have demonstrated that women with GDM experience higher levels of depression, anxiety, and stress, which can negatively impact their quality of life. A 2024 cross-sectional study highlighted the strong association between GDM and increased prevalence of mental health disorders among pregnant women.[8] These findings underscore the importance of comprehensive care for women with GDM, addressing both physical and mental health aspects to improve outcomes for mothers and their infants.

In the context of Pakistani society, various dimensions of prenatal care remain underexplored, particularly concerning lived experiences of women diagnosed with gestational diabetes mellitus (GDM). Although healthcare awareness has improved over time, traditional and conservative social norms continue to influence women's health experiences, often limiting their autonomy and access to adequate medical and emotional support. These cultural constraints can intensify the challenges of managing GDM, a condition that requires consistent medical follow-up, strict dietary adherence, and psychological resilience. Existing literature on GDM in Pakistan has primarily focused on its medical and physiological aspects, with limited attention to the psychosocial and cultural experiences of affected women. Few studies have explored how family dynamics, societal expectations, and gender roles shape the lived experiences of multigravida women coping with GDM. This represents a significant research gap, as family members often act as both caregivers and potential sources of stress, directly influencing women's health behaviors and emotional well-being.

The present study aims to address this gap by exploring the lived experiences and challenges of multigravida women with GDM within the sociocultural context of Pakistan. It seeks to understand how these women navigate social expectations, manage blood glucose levels, adhere to dietary restrictions, and cope with emotional distress. By highlighting these multidimensional experiences, the study contributes to a more comprehensive understanding of GDM beyond its clinical parameters. The findings are expected to inform healthcare professionals, policymakers, and caregivers about the unique needs of women with GDM, facilitating the development of culturally sensitive support interventions.

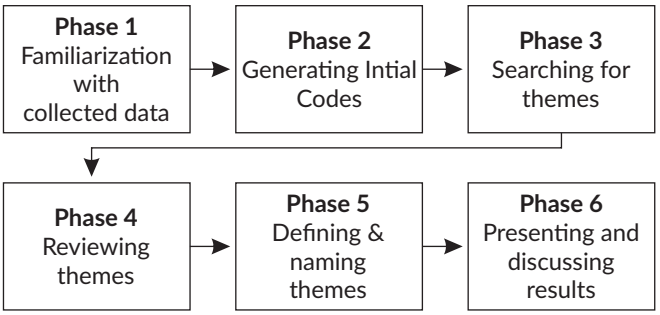
METHODOLOGY

The philosophical assumption used in this context is Ontology and Epistemology. Ontological approach helps in gaining an in-depth understanding of an individual's experience thus providing the researcher with rich descriptions about a specific phenomenon, with different perspectives from individuals. The ontological approach hence used multiple forms of evidence in the form of multiple realities by using the actual words of the individuals and their experiences. Researchers need to consider the fact that the world they live in is surrounded by various opinions, thoughts, interpretations and perspectives of other human beings.[9]

On the other hand, another assumption used in the current study is the Epistemological Assumption. The researchers try to get as closely possible to the participants as much as they can. They tend to conduct the research near the area the participants live. It helps in grasping first-hand information for the researcher. Subjective views are assembled from different participants as the researcher tries to get close to them. The researchers try to stay in the "field" and to know the participants more as through firsthand information.[10] Paradigm:The paradigm used in this research study is social constructivism, also known as interpretivism as the research focuses on IPA (Interpretative phenomenological analysis). Under the branch of

SR #	Age years	Education	Occupation	BMI	No. of pregnancies	No. of Miscarriages	Family History of diabetes
1	27	B.COM	Housewife	Obese	2	1	Yes
2	35	B.A	Housewife	Normal	3	1	Yes
3	28	Masters	Housewife	Overweight	5	2	Yes
4	26	FA	Housewife	Overweight	2	1	Yes
5	29	Bachelors	housewife	Overweight	2	1	Yes

Table 1. Demographic Characteristics of the sample



Six Phrase Framework of Thematic Analysis by Braun and Clarke (2006)

social constructivism, individuals seek the understanding of the word through their subjective analysis and experiences. The meanings are multiple, giving researcher an open view for different perspectives from the people rather than narrowing too few categories. The constructivists focus on the meaning is created, sustained, negotiated and adjusted.[11] Hence according to the nature of the current study, social constructivism fits the best as the study investigates the subjective and lived experiences and challenges of multigravida with GDM. IPA (Interpretative Phenomenological Analysis):For the researcher to extract a rich and well textural description of the experience, IPA (Interpretative phenomenological analysis) or phenomenology as it is the best approach to use as it focuses on the lived experiences of the people, on how real, lived and experienced they are. IPA is particularly beneficial in qualitative studies as methodology places a strong emphasis on being open to experience and having the ability to really evaluate subjective concepts.12The type of phenomenology that best fits in for this current study transcendental phenomenology by Husserl.13 Transcendental phenomenology focuses less on the interpretation of the researchers and more on the descriptions of the experiences of the participants. The method of bracketing or in other terms known as "epooche" is used in the current study to study from a fresh perspective rather than relying on the researchers' experiences. Hence the perspectives and narratives of the participants are essential with the use of textural description of their experiences. IPA's aim is to help investigate in how participants make the sense of their environment. It is a very suitable approach as it also helps in gaining an "insider's perspective" with specific situations and how the participants' make sense of it. For this research, semi-structured interviews are used to collect the required information and in-depth perspective of the participants' experiences. Procedure: For the current research, expert supervisor was hired for this job, to seek the credibility and feedback on the results of the research. Interview guide was also reviewed by the supervisor. Different gynecologists were approached to get help in data collecting for the interviews. The data is collected from two hospitals in Lahore. Purposive sampling was used to find the participants fitted to the inclusion criteria for the study. The agreed participants for the interview were checked whether they qualify for the interview according to the inclusion/exclusion criteria. The participants were then briefed about the aim of the research and whether or not they are willing to give an interview or not. Their consent and confidentiality were the priority while approaching the participants. A demographic information sheet form was used to extract the basic information such as age, occupation, education etc. and within the context of Pregnancy and GDM including no. of pregnancies, no. of abortions, family history of diabetes (table 1) etc. Interviews were conducted face to face in hospital. The interviews lasted up to 45–55 minutes, continuing until data saturation was reached. Their consent for audio recording the interview was taken beforehand. Participants: Phenomenological studies typically involve sample sizes ranging from 5 to 25 participants.10 In line with this, the present study involved five participants' selected based on specific criteria: currently pregnant women diagnosed with gestational diabetes mellitus (GDM), multigravida who have experienced GDM more than once, aged between 25 and 35 years, and willing to share their experiences with GDM. The sample recruited was homogeneous, ensuring consistency across participants. Demographic variables (education level, BMI, family history, or treatment mode) were not included for evaluative purposes but were collected solely to ensure homogeneity among participants.

In the present study, five participants were selected as this sample size was sufficient to achieve data saturation, meaning that no new themes or insights emerged after analyzing the fifth

THEMES	SUBTHEMES
Disrupted Mental Health	Emotional Reaction to Diagnosis
	Stress from Lifestyle Change
	Anxiety About Pregnancy Outcome
	Fear of Child Birth
	Worry About Child Well-Being
	Mental Exhaustion
	Guilt and Self-Blame
GDM Management	Dietary Modifications & Control
	Glucose Monitoring
	Physical Activity
	Adhering to Medical Care
Challenges and Risk Factors	Previous Pregnancy Experience
	Genetic Predisposition
	Traditional Remedies VS Medical Guidance
	Domestic Pressures
	Physical Burden
Network Support	Spousal Support
	Support from In-Laws
	Digital Support Forums
	Peer Support from Women with GDM
	Barriers to Seeking Support
Spirituality	Decision of God
	Increase in Religious Activities
	Hope for Healing Through Faith
	Spiritual Reflection and Growth
	Sense of Divine Protection
Coping and Inner Strength	Spiritual or Religious Coping
	Positive reframing and acceptance
	Motivation and Hope for Healthy Child
	Emotional Resilience and Adaptation
	Stress and Emotional Regulation
	Self-Education

Table 1 : Themes and Subthemes

interview. Furthermore, the limited number of participants allowed for in-depth exploration of each woman's emotional, social, and cultural experiences related to GDM. Additionally, given the sensitive nature of pregnancy-related health issues and the challenges in recruiting participants who met the inclusion criteria, a smaller sample was both practical and methodologically justified. Such a focused sample enabled the researcher to maintain close interaction with participants, ensuring authenticity, accuracy, and richness of qualitative data.

Interviews: Semi-structured is one of the ways to implement epistemological ontological approach at its fullest under the branch of IPA. The procedure involves preparing open end and close ended questions structured according to the expected answers prior the interview. Semi-Structured interviews are one of the way of data collecting in qualitative researches. Following with probe questions in order to explore their response and get an in-depth analysis of the participant's perspective. The interviews are conducted through face to face with the participant. This method helps in creating a great rapport with the participant which makes them feel quite comfortable in order to answer the questions. For the following research, informed consent was obtained prior to each interview, including permission for audio recording. Each interview lasted approximately 45–55 minutes, with additional interviews carried out as necessary

The interviews explored participant's recollections of the any physical and psychological ongoing experiences related to GDM and coping with their condition. For this research, a pilot study on face-to-face interviews with 2 individuals were conducted before the main research. The pilot phase of the research helped in the pretesting of the research instruments such as questions in interview guide, whether there is any need for changes in it. It also helped in having a clear vision and approach for the study, with clearly described techniques and methods that were be used. This research covers the phenomenological approach.14 A phenomenological study gives an in-depth analysis of the lived experiences of several individuals about a specific phenomenon. This type of design helps in extracting the common experiences of participants. The extracted experiences are converted into themes, through thematic analysis. It is known to be one of the most effective methods for analysis as it helps in understanding experiences, behaviors and thoughts of the Participants. It is the most widely used method and its framework consists of the following six steps.15

The steps for thematic analysis has been divided into 6 steps Braun & Clarke (2006).15 First, the researcher familiarizes themselves with the data by reading and re-reading transcripts to gain a deep understanding and make preliminary notes. In the second phase, initial codes are generated by breaking the data into meaningful chunks, capturing key ideas. In the third phase, these codes are grouped into broader emergent themes that reflect significant patterns across the data. The fourth phase involves reviewing these themes to ensure they accurately represent the data and are coherent, distinct, and well-supported. In the fifth phase, themes are clearly defined and refined, with their meanings explained and supported by participant quotes to show the relationship between themes and subthemes. Finally, the sixth phase involves writing and presenting the results in a structured report that summarizes the analysis and key findings.

RESULTS

The aim of the present study is to understand the lived

experiences and challenges of multigravida with GDM. Six major themes (table 1) were identified.

Disrupted Mental Health: When an individual is diagnosed with a specific illness or disease, it is natural for them to give some sort of reaction in return and in most cases, it is being overwhelmed by negative emotions. In this present study, many of the women were shocked to be diagnosed with GDM even though all of them had family history of diabetes from their parental sides, making it as one of the causes behind the development of GDM. It was difficult for them to accept it.

"No, I didn't know it before. When I had all the tests done before, it wasn't a blood pressure issue or a sugar issue. When the nine months started, I didn't even get it checked. Therefore my baby also couldn't survive. Which was a shock for me" participant-2 said.

Emotional disturbance, in the context of mental health, refers to a condition where an individual experiences significant impairment in daily functioning due to a persistent depressed or anxious mood. Women found the diagnosis of GDM unexpected and reacted with fear, particularly for their unborn baby's health. They were concerned about the impact of uncontrolled blood glucose levels, which can lead to complications such as excessive fetal growth, increasing the risk of delivery issues like shoulder dystocia. Additionally, they feared potential neonatal problems including low blood sugar, jaundice, and respiratory distress syndrome. These concerns often triggered emotional distress, leaving women feeling hopeless and frustrated

According to participant- 1"That pregnancy was very difficult. I didn't feel like eating, nor did I sleep. I took it all out on my mind. The doctor even gave me medicine for that but my mental health no doubt was affected.

"There are two factors: you feel insecure and you are very self-conscious. And because of this, your mood and nature fluctuate even when you don't want it." As reported by participant-3

Pregnant women tend to show morbid fear in their pregnancy, fearing the event of childbirth. This pathological fear is known as tokophobia.16 In current study, the fear of childbirth was prominent as the previous history of miscarriages due to GDM had developed fear of childbirth and by learning experiences of other people. Such fear can gradually develop into anxiety, and without proper monitoring by healthcare providers, it may intensify over time.

"I had a miscarriage earlier too, but that thought kept coming to my mind that something might happen to the baby." "You start getting depressed after listening to such things from the inside, that the baby might become underweight." as per participant 4.

GDM Management: Balanced diet is important as it is one of the very first treatments doctors recommend to the patients to control the glucose level. Most of the women do end up controlling their diabetes through diet. The participants shared variety of strategies they were suggested by their doctors. Participants described snacking one of the ways to deal with hunger, especially mid night cravings. They did not report any difficulties in taking readings from the blood glucose meter.

"Initially it was worry some, but I was ready to face the diet plan that I had gone through six months before I conceived." said participant-5.

Participant-2 said. "Well, it is like this, I eat yogurt or take nuts at night as snacks. Earlier I had constipation problem but now I don't. I even eat some fruit when I have craving. I don't feel like having that much in the morning though". As reported by participant-3

"I kept a logbook with me to note down the daily levels of glucose to show it to the doctor. Never had any difficulty" as per participant [4].

Physical activity is considered to be as one of the most active ways to optimize blood sugar levels. Even though moderate physical activity such as daily routine work, doing chores isn't considered as helpful as walking, aerobic or swimming is as it helps in controlling GDM.[17] In our setup, household chores are common to do even in pregnancy. With prescribed roles and duties, the participants described walking and household chores as their everyday physical activity.

"I didn't have time for proper exercise like walking or yoga. Most of my physical activity came from doing housework—cleaning, cooking, and taking care of my family. I thought that was enough because I was always busy and on my feet." said participant-5.

"My doctor advised me to walk daily, but it was difficult to manage with household duties. I considered my daily chores as my exercise since I was constantly working at home, even during pregnancy." as per participant [2].

Challenges and Risk Factors: The theme Challenges and Risk Factors with GDM encompasses multiple interrelated factors influencing women's experiences during pregnancy. One significant factor is previous pregnancy experience, as prior miscarriages or complications shape women's perceptions and coping strategies regarding their current diagnosis. In the present study, all five participants reported one or two miscarriages in previous pregnancies associated with GDM, which heightened their anxiety and vigilance throughout the current gestational period.

As reported by participant-3 "I had lost my first baby because of high sugar levels, so when I was diagnosed again during this pregnancy, I became very scared. I followed every instruction from the doctor carefully this time because I didn't want to go

through that pain again."

"In my previous pregnancy, I had complications and the baby didn't survive. That experience always stayed with me. During this pregnancy, I was constantly worried and checked my sugar levels many times a day just to make sure everything was fine." participant-2 said.

A strong genetic predisposition also emerged as a source of concern. All participants reported a family history of diabetes, which intensified fears regarding both their own and their child's long-term health outcomes. In addition, domestic pressures—including heavy household responsibilities, inadequate rest, and limited emotional support—further compounded the stress of disease management.

"My mother and sister both had diabetes, so when I got it during pregnancy, I wasn't surprised but I was very worried. I kept thinking that maybe my child would also have the same problem in the future. Even though I wanted to rest, there was always housework to do, and I didn't get much help from anyone at home." As reported by participant-3

"Diabetes runs in my family, and that made me more anxious after my diagnosis. I was scared about my baby's health too. At home, I still had to cook and look after everyone, even when I felt tired. No one really understood how difficult it was for me to manage everything with this condition." as per participant 4.

Participants also described tension between traditional remedies and medical guidance. Family elders often encouraged herbal or home-based treatments, whereas healthcare professionals emphasized adherence to prescribed medical regimens. This divergence created confusion and emotional strain, as women attempted to balance cultural expectations with evidence-based medical care.

"My mother-in-law kept telling me to use herbal drinks and home remedies instead of taking so many medicines. But my doctor said it could be risky for the baby. I felt very confused and didn't know whom to listen to. I didn't want to disrespect my elders, but I was also scared to ignore the doctor's advice." as per participant [1].

According to participant 5"Everyone at home believed that traditional remedies were better and safer during pregnancy. They asked me to try natural treatments. It was very stressful for me because I wanted to follow the doctor's instructions, but I didn't want to upset my family either."

The physical burden of GDM was also pronounced, with participants reporting fatigue, body aches, insomnia, and general discomfort throughout pregnancy. These physical symptoms, coupled with ongoing emotional distress, further diminished their ability to maintain psychological and physical stability.

"I felt tired all the time. Even small tasks like cooking or walking made me exhausted. My body ached, and I couldn't sleep properly at night. Sometimes I just cried because I was so uncomfortable and worried about my baby." as per participant 4.

"During this pregnancy, my sugar levels made me feel weak and dizzy most of the time. I had body pain and couldn't rest well because of household work. The stress and tiredness together made it very hard to stay calm and strong." said participant-5.

Collectively, these factors—previous pregnancy experiences, genetic vulnerability, sociocultural pressures, and physical strain—rendered the management of GDM an especially demanding and multifaceted challenge for the participants.

Network Support; Social support is very important. Having a very supportive network or close family, husband and friends matters a lot, especially for pregnant women as they are going through many major changes. It gives them a perception that they are in safe hands of the people who care for her. Participation in online forums, WhatsApp groups, or social media communities related to GDM or pregnancy also play their part to support women with GDM.

"My husband and family were very supportive throughout my pregnancy. They reminded me to take my medicine on time and helped me with household work. Knowing that they cared for me made me feel safe and less worried about my condition." As reported by participant-3

"I joined a WhatsApp group for mothers with GDM. Talking to other women who were going through the same thing really helped me. I didn't feel alone anymore, and their advice and experiences gave me confidence to manage my sugar levels better." participant-2 said.

Spirituality; Reading the Quran and other religious books, attending religious congregations, offering prayers, attending religious rituals, praying to God and requesting Him to solve the problem were frequently used strategies. This increase in religious activities also a sense of divine protection in them. One of the participants shared how the role of spirituality played as motivational resort for the participant as they rely on the God only.

"I used to pray a lot and read the Quran every day. It gave me peace and strength. Whenever I felt anxious about my baby or my sugar levels, I prayed to Allah and felt that He would take care of everything." participant-2 said.

"During my pregnancy, I became more religious. Believing that Allah was with me made me feel protected and gave me hope to stay positive." said participant-5.

"I pray very regularly and Surah Muhammad has helped me to get a lot of peace." said participant-3

Coping and Inner Strength; Women often rely on spiritual or religious coping, turning to prayer and faith as sources of comfort and hope. Positive reframing and acceptance allow them to mentally adapt to the diagnosis, viewing it as manageable or part of a greater plan. A strong motivation and hope for a healthy child drives their compliance with treatment and lifestyle changes, despite the challenges. Emotional resilience and adaptation help them navigate emotional upheaval, while stress and emotional regulation techniques—such as relaxation and meditation—aid in maintaining psychological balance. Additionally, self-education empowers women by enhancing their understanding of GDM, fostering confidence in managing their condition.

Participant-2 said. "A strong sense of motivation and hope for delivering a healthy child encouraged me to make necessary lifestyle adjustments, despite the difficulties I had to face."

"Adjusting to my situation helped me handle emotional ups and downs, while stress management and emotional control techniques helped me stay mentally balanced." as per participant 4.

As reported by participant-3 "When I found out I had diabetes during pregnancy, I was very upset at first. But later I started thinking that maybe it was part of Allah's plan and that I just needed to stay strong. I prayed regularly, tried to stay calm, and followed the doctor's advice because I wanted my baby to be healthy." said participant-5.

"I learned a lot about GDM by reading and asking my doctor questions. Understanding my condition made me feel more confident and less scared. Whenever I felt stressed, I tried to relax, do deep breathing, and remind myself that I could handle it for the sake of my child." said participant 1.

Together, these coping strategies reflect the inner strength and adaptive capacities that help women endure the complex physical and emotional demands of GDM.

DISCUSSION

The present study explores lived experiences and challenges of multigravida with GDM in Pakistani settings.

Stress, depression and anxiety have been previously associated with GDM. A study on the psychosocial aspects of gestational diabetes mellitus (GDM) found high levels of stress related to their diagnosis and maternal and infant complications.18 Another study have shown how anxiety and stress plays a significant role when women feel lack of control on their glycemic control, with experiencing difficulties throughout pregnancy and managing GDM.[19] The current study has shown the same results as the literature that women end up experiencing anxiety at the time of their diagnosis. The anxiety has shown to increase due to previous obstetric history of miscarriages in relation with fear of birth as women are concerned about the impact of GDM on their baby.

The women in the study reported feeling distressed, particularly due to the strict diet plan and other aggravating factors. However, some women did not find managing GDM as challenging as others. This difference appears to be influenced largely by their previous experiences and personal perceptions. A research conducted on nutritional management of GDM women, has mentioned and proved that the appropriate healthy dietary plan for females who are diagnosed with GDM can help in effectively control the glucose levels and hence can improve the fetus growth and probability of fetal defects.[20] The findings of this study highlight the multifaceted nature of GDM self-management, revealing both the physical and psychosocial adjustments women must navigate. Participants reported varying experiences with dietary modifications—while some adapted easily, others found the changes challenging and emotionally taxing. This variation aligns with previous research which emphasizes that dietary adherence in GDM is influenced by individual coping mechanisms, prior nutritional habits, and support systems.[21]

The use of pharmacological treatments such as metformin (Glucophage) and insulin was common among participants, particularly in cases where GDM was more severe. Insulin remains the standard treatment when lifestyle interventions alone are insufficient, with metformin often used as an adjunct or alternative in some clinical settings.[22]

Additionally, social and cultural challenges emerged as significant barriers to effective self-management. Some women expressed distress over being unable to participate in traditional eating practices during social gatherings, a finding of a research explained that dietary restrictions can create a sense of isolation and conflict, especially during culturally significant events.[23] Participants also mentioned difficulty managing midnight cravings, often attributing this to the common belief that pregnancy requires "eating for two." This perception, although culturally prevalent, is not supported by clinical guidelines and may contribute to poor glycemic control if not addressed.[24] Overall, these insights underscore the need for culturally sensitive, individualized education and support programs that address not only the clinical aspects of GDM management but also the social and emotional realities women face.

Exercise has also proven to be effective for GDM. Different studies have shown that how physical activity especially in the form of exercise e.g. yoga, aerobics, jogging etc. is helpful is keeping the mother and the baby safe. A study found that continuous movement of large muscle groups is most

effectively achieved through various forms of exercise, such as walking, jogging, and stair climbing. It is important to take into account the history of physical activity, cardiovascular health, and strength. After the early stages of pregnancy, nausea and fatigue are usually stabilized making it more suitable for those who have been inactive for an extended period. Women with little activity can begin with moderate aerobic exercise from 15 minutes 3 times a week to 30 minutes 4 or more times a week. However, exercises greater than 45 minutes could increase the fetus temperature so it's best to keep exercise intervals no more than two days apart. Exercise can also enhance insulin action and glucose uptake for 48 hours afterwards.[25]

Women who found GDM difficult often described their initial diagnosis as particularly distressing. Starting insulin treatment was especially frustrating for many. Additionally, participants with a history of miscarriages, abortions, or stillbirths expressed deep concerns about the potential harm GDM complications could cause to their unborn babies. Most participants were concerned about the potential negative effects of GDM on themselves and the baby, which included having a large baby, having a cesarean section, developing diabetes after delivery, and having a preterm or premature birth. A study on GDM and relation of pregnancy outcome supports the concerns of the women as the study concludes that women with GD are more prone to delivering stillborn and macrosomia babies in their pregnancy.[26]

All the participants had family history of diabetes either from the maternal or paternal side. A meta-analysis suggested that family history of diabetes mellitus plays a significant role in the development of gestation diabetes in from parents to children, especially females in future. The current study has proven this fact completely right as all of the participants either had both diabetic parents and one of them. They also complained about having body pains and joint pains in their pregnancy due to GDM.[27]

The findings of this study emphasize the crucial role of social support in the self-management of gestational diabetes mellitus (GDM). Participants reported feeling more at ease, cared for, and in control of their condition when supported by partners, family, and friends. This sense of emotional and practical support significantly influenced their ability to cope with the demands of GDM. Most women highlighted the importance of having empathetic and encouraging relationships, particularly with their partners, who were described as tolerant, expressive, and actively involved in their journey. This aligns with the findings in which it was noted that emotional and instrumental support from close relationships positively impacts chronic disease self-management by reducing stress and enhancing motivation.[28] Similarly, a study found that women with GDM who reported strong partner and family involvement were more likely to adhere to dietary guidelines and experience reduced emotional distress.[29] Emotional closeness and shared responsibility contributed to a more manageable experience with the condition. Moreover, social support has been shown to buffer the psychological burden of GDM. It was emphasized that emotional support helps reduce anxiety and encourages healthier behavior change. For many women in this study, partner involvement not only eased the practical challenges of GDM management but also provided a source of emotional resilience, reinforcing their motivation to prioritize both maternal and fetal health. Even few of the participants felt that receiving support from the doctor or the healthcare was very valuable for them as it also showed the side of concern from the doctor and also helped in increasing their knowledge about GDM and its effects [30]

Given that the current study was conducted in a Pakistani context, all participants identified as Muslim. Their reactions to a GDM diagnosis were notably influenced by religious beliefs, with many women expressing acceptance of the condition as part of Allah's will. This spiritual perspective appeared to foster a sense of inner peace and emotional resilience. Several participants reported becoming more spiritually engaged and finding comfort in prayer and religious reflection, which they viewed as a coping mechanism during pregnancy. These findings align with previous research indicating that spirituality and religious beliefs play a critical role in how Muslim women interpret and manage illness. Many Muslim patients perceive illness, suffering, and pain as tests from God and view enduring them patiently as a means of spiritual purification. This perspective helps individuals make meaning of their condition, often leading to greater psychological acceptance and reduced emotional distress.[31] Furthermore, it was highlighted that spiritual beliefs can serve as powerful coping tools, particularly among those facing chronic or complex health conditions. In Muslim communities, religious faith often provides a structured framework for understanding adversity, which can help reduce anxiety and depression.[32] In the context of GDM, this spiritual lens may promote emotional stability and reinforce adherence to health behaviors, as patients may view self-care as a religious duty to protect the life entrusted to them.

Coping and inner strength play a critical role in navigating the challenges associated with the condition. Spiritual coping is often a key resource, as many women turn to prayer, faith, or belief in divine will to find emotional comfort and meaning in their diagnosis.[32'33] The use of positive reframing and acceptance helps women mentally adjust to the demands of GDM, fostering psychological flexibility and reducing emotional distress.[34] A strong motivation and hope for a healthy child often serves as the central driving force behind their commitment to treatment

and self-care.[35] Emotional resilience and adaptation are commonly observed, as women learn to integrate medical advice into their daily routines and maintain stability amidst fear and uncertainty.[36] Similarly, stress and emotional regulation strategies such as relaxation techniques, mindfulness, or talking with trusted individuals have been shown to support mental well-being in high-risk pregnancies.[37] Furthermore, self-education empowers women to better understand their condition, increasing their confidence and improving self-management behaviors.[38] Collectively, these coping strategies reflect a dynamic interplay between psychological, spiritual, and informational resources that contribute to the well-being of multigravida women managing GDM.

Strengths of the Study: This current qualitative study has several strengths. First, the participants of the study represent homogeneity as it includes pregnant women with previous experiences of GDM and current pregnancy with GDM. All the women belonged to an educational background and did not suffer from any known fetal anomalies' additional pregnancy related complications. Secondly, the participants' fluency in and understanding of English Language, facilitated open and detailed sharing of their experiences during the interviews. Given the scarcity of research on GDM in Pakistan, this study addresses a significant gap, providing valuable insights into the lived experiences and challenges of multigravida women with GDM.

Limitations and future direction: Despite the valuable insights gained, this study has several limitations that must be acknowledged. Clinically, the study's reliance on a relatively small and context-specific sample of multigravida women with a history of GDM restricts the applicability of the findings across diverse patient populations. The inclusion of participants from only urban hospitals in Lahore limits the transferability of insights to women in rural or resource-constrained settings, where clinical practices and patient experiences may differ substantially. Additionally, the physical and emotional demands of pregnancy and caregiving posed challenges during data collection, raising concerns about participant fatigue and reduced engagement, which may have influenced the depth of clinical insights gathered.

From a research perspective, the retrospective accounts provided by many participants introduced the risk of recall bias, which may have shaped how experiences were reconstructed and reported. Moreover, the single-site design limits the generalizability of findings to broader populations, while the modest sample size restricted the diversity of perspectives.

Future research should adopt multi-site designs, incorporating both urban and rural healthcare settings, to enhance the generalizability of findings and capture cultural and contextual variations in GDM management. Longitudinal qualitative approaches, where participants are interviewed during and after pregnancy, could minimize recall bias and provide more nuanced insights into evolving clinical and psychosocial challenges. Researchers should also explore integrating mixed methods, combining in-depth interviews with quantitative measures of maternal and neonatal outcomes, to strengthen clinical applicability. Finally, incorporating digital health tools (e.g., mobile-based diaries or voice notes) may help participants document experiences in real time, reducing reliance on retrospective recall and improving data accuracy.

Recommendations; This study provides valuable qualitative insights into the challenges of women with GDM, especially among multigravida women in a Pakistani context. The use of a phenomenological approach has enabled a deeper understanding of how women interpret and manage their experiences with GDM beyond clinical symptoms. Furthermore, the findings of this study underscore the importance of a holistic, patient-centered approach to GDM care. With the help of this research the clinicians can not only focus on glycemic control but also deal with the emotional, mental, and social well-being of pregnant women. As the study investigated the importance of family and partner support, healthcare providers can also involve family members in diabetes education to foster a supportive home environment.

CONCLUSION

This study highlights the multifaceted challenges faced by multigravida women with GDM in Pakistan, shaped by both medical complexities and cultural context. This study reveals that women with GDM encounter a range of emotional, physical, and psychological difficulties throughout pregnancy. Barriers to effective dietary management, adherence to medical advice, and consistent glucose monitoring are common, often compounded by limited support and awareness. Despite these challenges, many women develop personal coping strategies and rely on varying levels of family, spiritual and digital support.

REFERENCES

1. Algamadi HA. Lived Experience of Gestational Diabetes Mellitus among Saudi Women: Interpretive Phenomenological Study (Master's thesis, The University of Western Ontario (Canada)).
2. Hod M, Merlob P, Friedman S, Schoenfeld A, Ovadia J. Gestational diabetes mellitus: a survey of perinatal complications in the 1980s. Diabetes. 1991 Dec 1;40(Supplement_2):74-8.
3. Gyasi-Antwi P, Walker L, Moody C, Okyere S, Salt K, Anang L,

Eduful E, Laryea D, Ottie-Boakye D, Asah-Opoku K, Asibey S. Global prevalence of gestational diabetes mellitus: a systematic review and meta-analysis. New American Journal of Medicine. 2020 Jul 1;1(3):1-0.

4. Adnan M, Aasim M. Prevalence of gestational diabetes mellitus in Pakistan: a systematic review and meta-analysis. BMC Pregnancy and Childbirth. 2024 Feb 3;24(1):108.
5. Phaloprakarn C, Suthasmalee S, Tangjitgamol S. Impact of postpartum weight change on metabolic syndrome and its components among women with recent gestational diabetes mellitus. Reproductive Health. 2024 Apr 6;21(1):44.
6. Ye W, Luo C, Huang J, Li C, Liu Z, Liu F. Gestational diabetes mellitus and adverse pregnancy outcomes: systematic review and meta-analysis. Bmj. 2022 May 25;377.
7. Beta J, Khan N, Khalil A, Fiolna M, Ramadan G, Akolekar R. Maternal and neonatal complications of fetal macrosomia: systematic review and meta-analysis. Ultrasound in Obstetrics & Gynecology. 2019 Sep;54(3):308-18.
8. Nazarpour S, Simbar M, Kiani Z, Khalaji N, Khorrami Khargh M, Naeiji Z. The relationship between quality of life and some mental problems in women with gestational diabetes mellitus (GDM): a cross-sectional study. BMC psychiatry. 2024 Jul 18;24(1):511.
9. Ahmed J, Alam A, Khokhar S, Khowaja S, Kumar R, Greenow CR. Exploring women's experience of healthcare use during pregnancy and childbirth to understand factors contributing to perinatal deaths in Pakistan: A qualitative study. PloS one. 2020 May 7;15(5):e0232823.
10. W John C. Qualitative Inquiry And Research Design Choosing Among Five Approaches. Library of Congress Cataloging-in-Publication Data.
11. Schwandt TA. Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics, and social constructionism. InHandbook of qualitative research 2000 (pp. 189-213). Sage Publishing.
12. Schweitzer R, Steel Z. Researching refugees: Methodological and ethical considerations. InDoing cross-cultural research: Ethical and methodological perspectives 2008 Jul 31 (pp. 87-101). Dordrecht: Springer Netherlands.
13. Moustakas C. Phenomenological research methods. sage; 1994 Jul 27.
14. De Santis D, Hopkins BC, Majolino C, editors. The Routledge handbook of phenomenology and phenomenological philosophy. Routledge, Taylor & Francis Group; 2021.
15. Braun V, Clarke V. Supporting best practice in reflexive thematic analysis reporting in Palliative Medicine: A review of published research and introduction to the Reflexive Thematic Analysis Reporting Guidelines (RTARG). Palliative medicine. 2024 Jun;38(6):608-16.
16. Bhatia MS, Jhanjee A. Tokophobia: A dread of pregnancy. Industrial psychiatry journal. 2012 Jul 1;21(2):158-9.
17. Padayachee C, Coombes JS. Exercise guidelines for gestational diabetes mellitus. World journal of diabetes. 2015 Jul 25;6(8):1033.
18. Hui AL, Sevenhuysen G, Harvey D, Salamon E. Barriers and coping strategies of women with gestational diabetes to follow dietary advice. Women and Birth. 2014 Dec 1;27(4):292-7.
19. Pluess M, Bolten M, Pirke KM, Hellhammer D. Maternal trait anxiety, emotional distress, and salivary cortisol in pregnancy. Biological psychology. 2010 Mar 1;83(3):169-75.
20. Dolatkhah N, Hajifaraji M, Shakouri SK. Nutrition therapy in managing pregnant women with gestational diabetes mellitus: a literature review. Journal of family & reproductive health. 2018 Jun;12(2):57.
21. Carolan M, Gill GK, Steele C. Women's experiences of factors that facilitate or inhibit gestational diabetes self-management. BMC pregnancy and childbirth. 2012 Sep 18;12(1):99.
22. American Diabetes Association. Introduction: standards of medical care in diabetes—2022. Diabetes care. 2022 Jan 1;45(Supplement_1):S1-2.
23. Bandyopadhyay M, Small R, DAVEY MA, Oats JJ, Forster DA, Aylward A. Lived experience of gestational diabetes mellitus among immigrant South Asian women in Australia. Australian and New Zealand Journal of Obstetrics and Gynaecology. 2011 Aug;51(4):360-4.
24. McIntyre HD, Catalano P, Zhang C, Desoye G, Mathiesen ER, Damm P. Gestational diabetes mellitus. Nature reviews Disease primers. 2019 Jul 11;5(1):47.
25. Hordern MD, Dunstan DW, Prins JB, Baker MK, Singh MA, Coombes JS. Exercise prescription for patients with type 2 diabetes and pre-diabetes: a position statement from Exercise and Sport Science Australia. Journal of Science and Medicine in Sport. 2012 Jan 1;15(1):25-31.
26. Bawah AT, Ngala RA, Alidu H, Seini MM, Wumbee JD, Yeboah FA. Gestational diabetes mellitus and obstetric outcomes in a Ghanaian community. Pan African Medical Journal. 2019 Feb 27;32(1).
27. Ammutammima UF, Tamtomo DG, Murti B. Relationship between family history of diabetes mellitus and gestational diabetes mellitus: A meta-analysis. Indonesian Journal of Medicine. 2021 Feb 23;6(1):71-81.
28. Grembowski D, Patrick D, Diehr P, Durham M, Beresford S, Kay E, Hecht J. Self-efficacy and health behavior among older adults. Journal of health and social behavior. 1993 Jun 1:89-104.
29. Smith R, Ridout A, Livingstone A, Wango N, Kenworthy Y, Barlett K, Coburn H, Reid H, Jones N, Mackillop L. Motivational interviewing to increase physical activity in women with

gestational diabetes. British Journal of Midwifery. 2021 Oct 2;29(10):550-6.

30. Dennison RA, Ward RJ, Griffin SJ, Usher-Smith JA. Women's views on lifestyle changes to reduce the risk of developing type 2 diabetes after gestational diabetes: a systematic review, qualitative synthesis and recommendations for practice. Diabetic Medicine. 2019 Jun;36(6):702-17.
31. Majeed AM, Khan ZA, Aschebrook-Kilfoy B, Kibriya MG, Ahsan H, Padela AI. Cancer screening differences among Muslims and non-Muslims: insights from the Chicago multiethnic prevention and surveillance study. Journal of Racial and Ethnic Health Disparities. 2023 Feb;10(1):176-82.
32. Koenig HG. Religion, spirituality, and health: The research and clinical implications. International Scholarly Research Notices. 2012;2012(1):278730.
33. Rowe MM, Allen RG. SPIRITUALITY AS A MEANS OF COPING WITH CHRONIC ILLNESS. American journal of health studies. 2004 Mar 1;19(1).
34. Lazarus RS, Folkman S. Stress, appraisal, and coping. Springer publishing company; 1984 Mar 15.
35. Hjelm K, Berntorp K, Frid A, Åberg A, Apelqvist J. Beliefs about health and illness in women managed for gestational diabetes in two organisations. Midwifery. 2008 Jun 1;24(2):168-82.S
36. Ge L, Wikby K, Rask M. Lived experience of women with gestational diabetes mellitus living in China: a qualitative interview study. Bmj Open. 2017 Nov 1;7(11):e017648.
37. Syamsiah RI, Liana L, Kusumawati MW. Adolescent coping strategies in dealing with psychosocial impacts during the COVID-19 pandemic: A systematic review. Promotion and Prevention in Mental Health. 2021 Aug 28;1(1):21-9.
38. Carolan-Olah MC. Educational and intervention programmes for gestational diabetes mellitus (GDM) management: An integrative review. Collegian. 2016 Mar 1;23(1):103-14.

CONFLICT OF INTEREST

Author declared no conflict of interest

GRANT SUPPORT & FINANCIAL DISCLOSURE

Author declared no specific grant for this research from any funding agency in the public, commercial or non-profit sectors

AUTHORS CONTRIBUTIONS

SA: Conception, Design of the work, Data collection on, and Drawing, Reviewed, Final approval, Agreement to be accountable

SN: Conception, Design of the work, Acquistion on, Interpretation on of data for the work, Data Analysis, and Drawing, Reviewed, Final approval, Agreement to be accountable.

DATA SHARING POLICY

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ABMS web address: www.abms.kmu.edu.pk
Email address: abms@kmu.edu.pk