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Original Research

Life Experience of Pregnant Woman with Gestational Diabetes Mellitus in Maternal Role Attainment in Special Region of Yogyakarta

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ABSTRACT

Introduction: Gestational Diabetes Mellitus (GDM) is any abnormal carbohydrate intolerance that begins or is first recognized during pregnancy. The presence of GDM has important implications for both the baby and the mother. Objective: This study explored life experience of pregnant woman with GDM in maternal role attainment.

Methods: This was a phenomenological approach qualitative research. Participants were 12 mothers who gave birth to a maximum of 1 year with a history of GDM selected by purposive sampling technique with sampling criteria. Data analysis used the Colaizzi method (2011).

Results: There were eight categories, e.g. the experience of the mother in GDM diagnosis; the influence GDM of the pregnancy; mother's experience in trying hard to keep her pregnancy; a variation of life experience of mothers during pregnancy, childbirth, and post-delivery; the perception of mother of her role being a mother, the factors that support the development and achievement of the maternal role attainment; the mother's experience in integrating the identity of her role as mother; gap and the desire of the mother with GDM in receiving health services. Life experience of GDM mothers in achieving maternal role attainment has a diversity.

Discussion: Pregnant mothers with GDM experience various maternal role attainments. They cannot attain the role optimally.

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INTRODUCTION

GDM is defined as glucose intolerance with onset or first recognition during pregnancy. The definition does not require any return to normal glucose levels following delivery. Thus, GDM simply represents relatively high glucose levels at one point in the life of a young woman (Buchanan et al., 2012). GDM is a form of hyperglycemia. In general, hyperglycemia results from an insulin supply that is inadequate to meet tissue demands for normal blood glucose regulation. Studies conducted during late pregnancy, when, as discussed below, insulin requirements are high and differ only slightly between normal and gestational diabetic women, consistently reveal reduced insulin responses to nutrients in women with GDM. Studies conducted before or after pregnancy, when women with prior GDM are usually more insulin resistant than normal women (also discussed below), often reveal insulin responses that are similar in the two groups or reduced only slightly in women with prior GDM. However, when insulin levels and responses are expressed relative to each individual's degree of insulin resistance, a large defect in pancreatic ß cell function is a consistent finding in

women with prior GDM (Buchanan et al., 2012; Plows et al., 2018). The presence of GDM has important implications for both the baby and the mother. As regard baby complication, GDM is associated with a significantly increased risk of macrosomia, shoulder dystocia, birth injuries as well as neonatal hypoglycemia and hypobilurinemia. GDM also adds an intrauterine environmental risk factor to an increased genetic risk for the development of obesity, diabetes and/or metabolic syndrome in childhood. As regard mothers' complications, GDM is a strong risk factor for the development of permanent diabetes later in life (40% in 10 subsequent. years) and GDM in successive pregnancies (35%), increasing with the age and weight of the mother. An important intervention on long-term metabolic benefits for both mother and offspring has been attributed to breastfeeding. In the offspring, a protective role was seen against excessive fat accumulation, protection against childhood infections, cardiovascular diseases and type 2 diabetes, while in women an association between lactation and low concentrations of glucose and insulin and a better tolerance to glucose was seen and a significant delay in the appearance of type 2 diabetes in women with GDM (Alia et al., 2019).

In Indonesia, the prevalence of GDM is around 14% of all pregnant women, and 10-25% of the total cases handled are undiagnosed or diagnosed GDMs (Dewi et al., 2020). According to Medical Record Department, Sardjito Hospital of Yogyakarta, the prevalence of GDM in Indonesia is approximately 1,9-3,6 on inpatient disease index of GDM in the last 10 years from 2012-2013.

MATERIALS AND METHODS

This research was a phenomenological approach qualitative research. Data collection was carried out through in-depth interviews with a voice recorder and field notes. Participants were selected based on research needs with the principle of appropriateness and adequacy. Participants in this research were mothers who delivered to a maximum of 1 year with a history of GDM. The data collection was finished in the twelve participant when the categorization of data was saturated. In addition, the availability of time and resources in research is also taken into consideration in ending data collection. This research instrument was the researchers themselves. Purposive sampling technique with sampling criterion was used. The inclusion criteria in this study were 1). Mothers who have given birth for a maximum of the last 1 year and were treated at Dr. Sardjito with a history of DMG. 2) Living in the Special Region of Yogyakarta Province. 3). The maternal age of delivery was less than 18–45 years. 4). Maternal gestational age was less than 32 weeks and more than 40 weeks. 5). Willing to become a participant by agreeing the informed consent. The exclusion criterion was poor pregnancy outcome (stillbirth and severe defects). Data analysis used the Colaizzi method. The inclusion of additional steps were 1). Transcribing all the subjects' descriptions. 2). Extracting significant statements (statements that directly relate to the phenomenon under investigation). 3). Creating formulated meanings. 4). Aggregating formulated meanings into theme clusters. 5). Developing an exhaustive description (that is, a comprehensive description of the experience as articulated by participants). 6). Additional step was researcher's interpretative analysis of symbolic representations from the articulation of the symbolic representation (which occurred during participant interview). 7). Identifying the fundamental structure of the phenomenon. 8). Returning to participants for validation (Edward & Welch, 2011). Data were collected between December 2013 and February 2014. Nursing theory of maternal role attainment (Shrestha et al., 2019) was used as a reference to analyse life experience of mother with GDM. The validity of the data in this research was tested and included the credibility, dependability, and conformability. The study was declared to have passed the ethical review by the Research Ethics Committee, Faculty of Medicine, Gadjah Mada University.

RESULTS

Based on the criteria for inclusion, participating gained as many as five mothers with GDM. In-depth interviews were conducted with participants, which showed mixed results about life experience of pregnant women with GDM in Yogyakarta. This study obtained as many as eight themes of the sub-categories that have been arranged.

Theme 1: Experiences of mothers in the diagnosis of GDM

Mothers' experiences when diagnosed of GDM determined the sustainability of the mother's condition during pregnancy. Sub-categories of signs and symptoms, as well as the causes of diabetes mellitus in pregnancy, were expressed by the participants as follows: P5-12: "Well heredity and lifestyle is wrong, wrong diet contains a lot of sugar." Sub-category of mothers' ignorance about the disease when pregnant was expressed by participants as follows: P2-18: "During pregnancy, I didn't know

what diabetes mellitus is, so I didn't take any treatment, just checked my pregnancy with midwives and district health centre. I've just known this after surgery process, so I didn't realize and know before. I just knew when I had a treatment in Sardjito Hospital, and I was brought into a quiet room. After delivering, I was checked on sugar level, it reached 600 and I was placed in a different ward."

Theme 2: Influence of diabetes mellitus on pregnancy

Gestational Diabetes Mellitus influences maternal and fetal. From the results of interviews with participants it was found the data on the effect of the decrease in fetal condition. Participant P1-5 said: "When I had doctor visits around 9 or 10 am, my baby's heartbeat was supposed to 150 per minutes, but it declined 50 beats per minute, so the doctor advised me to have surgery in the afternoon. My baby was born after 8 months pregnancy, the weight was 1800 grams." The children's condition at birth showed varied circumstances, there were babies who in healthy condition and started to cry, some were born with sepsis and small infants and also experienced hypoglycemia and needed to be treated. There were not enough birth month and low birth weight data.

Theme 3: Experiences of mothers' effort to save their pregnancy

Maintaining pregnancy with diabetes mellitus make a mother desperate to retain the fetus and the mother to remain healthy. There are many ways for mothers to save their pregnancy, such as maintaining maternal and fetal maturity by checking their pregnancy into the hospital with a pregnancy condition of insufficient enough months, then the mothers continually do antenatal care. Here are the expressions of participant: P2-27: "I do monthly check in Kalasan Hospital, I am not suitable to midwives. They said I had to check my pregnancy into the hospital. "

Theme 4: Variation of life experience of the mother during pregnancy, childbirth, and postpartum

Participants have diverse life experiences during pregnancy, delivering, and postpartum. The experience of mothers with GDM during pregnancy is that pregnancy test was done at the health centre and hospital. There is also diversity when the mother checked the pregnancy, which is revealed by the participants as follows: P1-7: "Examination of pregnancy is regularly done in health centre, but I never join maternal exercise." The experience of participants in facing the delivery process is very diverse; the delivery process was done by surgery. Experiences of pregnant women suffering from GDM becomes a traumatic feeling. This is proved by the expression that, postpartum, the mothers decided to use IUD. They were afraid they would get pregnant again and had complaints unwanted if they did not use contraception.

Theme 5: Maternal perception of role during pregnancy

Mothers who have a good maternal role are able to find out the truth about something that is inherent in children (blind-ing-in) and have a comfortable sense of identity (maternal role identity). This means that a mother is able to integrate her role in the system itself with the suitability of herself and other roles. The situation makes mothers rate themselves on how they underwent her role is shown by the feeling of helplessness that indicated a sense of worry about whether their children have the degenerative disease of diabetes mellitus and the confusion of mothers in caring the baby because the baby is too small. Here is the expression of participant : P1-15: "Yes I am so happy. There is gladness and worry, I am worried whether my child has a degenerative disease. "

Theme 6: The factors that support the development and maternal role attainment

Husband's support, family support, and commitment of the mother are the support system for the mother to carry out her role as a mother. Here are the expressions of participants: P4-14: "My husband supports me, he saves me, maintains my diet, delivers me to check my pregnancy..." P1-22: "My family has always suggested to check when my check-up time is due, encourage me that I will have a little girl and support me to have a treatment . They support me to do routine treatment, providing support, give support. My husband also supports me. "

Theme 7: Experience in integrating maternal role as mother.

The identity of the mother's role can be achieved when the mother is able to integrate herself into the role with her suitability and other roles. Mothers will feel secure in their identity as a mother. Data were obtained from participants in achieving that role identity, the mother can indicate how being parents makes them happy. ParticipantsP1-46 expressed: "We'll give our baby love too."

Theme 8: Gaps and desires of mothers with diabetes in receiving healthcare

In providing health services to clients, health professionals are expected to provide care and other services because it influences the healing and prosperity of the client. Clients' hope of health workers is to give more attention to the patient, because pregnant women with diabetes mellitus are particularly vulnerable and cause complications of other diseases. Participant P5-30 said: "Well, basically if there is a patient, they hoped to be taken care of because DM is a disease that can cause fatal effect to fetal."

DISCUSSION

Theme 1: Experiences of mothers in the diagnosis of GDM

Pregnancy is a normal physiological process. The majority of pregnancy is accepted by the mother as something that had to be lived with. But the experience of the mother diagnosed with diabetes during pregnancy is a special experience for the mother and a serious challenge to maintain and undergo pregnancy. Therefore, it is very necessary to do prenatal care for the mother and fetus to align processes to avoid pregnancy complications and decrease the incidence of morbidity or perinatal and maternal mortality (Schellinger et al., 2017). The antenatal care is the first step to establish a diagnosis. Signs and symptoms of diabetes mellitus assessment need to be done when the mother's make their first visit to the antenatal care (Muche et al., 2019).

During pregnancy, increased levels of certain hormones made in the placenta (the organ that connects the baby by the umbilical cord to the uterus) help shift nutrients from mother to fetus. Another hormone produced by the placenta helps prevent the mother from developing low blood sugar. During pregnancy, this hormone causes progressive disruption of glucose intolerance (blood sugar levels are higher) (Soheilykhah et al., 2010). To try to lower blood sugar levels, the body makes more insulin so that the cells have glucose for producing energy sources. Mother's pancreas is able to produce more insulin (about three times the normal amount) to overcome the effects of pregnancy hormones on blood sugar levels. However, if the pancreas cannot produce enough insulin to overcome the effect of the increase hormones during pregnancy, blood sugar levels will rise, causing GDM (Durnwald, 2015; Shanthi et al., 2019).

The result of this study shows that the cause of GDM is due to hereditary factors, immunological factors, and diabetes acquired during pregnancy. The etiologies of GDM are genetic, immunological factors, environmental factors, age, and obesity (Bare & Smeltzer, 2010). Secondary data from this study revealed that, when mothers do first antenatal care, screening is not performed on blood sugar levels. It is similarly stated by participants when they did their first antenatal care. This is why GDM becomes unmanageable in trimester 1, trimester 2 and trimester 3, so mother and fetus experience pain, which, in turn, causes termination of pregnancy although at less than 38 weeks gestation.

Theme 2: The effect of GDM on pregnancy

Pregnant women need more insulin to maintain normal carbohydrate metabolism. If you are not able to produce insulin to meet these demands, it can cause diabetes, which results in changes in the metabolism of carbohydrates. GDM has a significant effect on pregnancy in the mother and baby. In the fetus, it is indicated by a decrease in the condition of the fetus with the fetal heart rate becoming weakened, children born with low birth weight and premature infants (Plows et al., 2018).

Fetal Heart Rate (FHR) indicates a weakening of this increased parasympathetic response. FHR conditions can cause a bradycardia fetal wherein FHR is below 110 beats/min. This situation can be regarded as a sign of fetal hypoxia and is known to occur prior to the death of the fetus. Some of the child's conditions at birth were born with healthy condition and immediately cry, low birth weight, sepsis infection, and hypoglycemia. Infants with low birth weight and hypoglycemia are known to occur due to the disruption of placental insufficiency. Because the glucose can diffuse through the placenta to the fetus, so the level in fetal blood is almost like the maternal blood levels. Mother insulin cannot reach the fetus, so the mother's blood sugar levels affect fetal blood levels (Alia et al., 2019; Plows et al., 2018).

These results are reinforced by compelling evidence that mild maternal hyperglycemia is a risk factor for fetal morbidity. Failure to recognize and deal with these conditions will result in unwanted morbidity in multiple pregnancies, while overly aggressive management will result in the emergence of intervention is not required. Infants of diabetic mothers have unique problems and require special handling (Alia et al., 2019). One previous study showed that babies born to mothers with a history of DM revealed an increase in the Sectio Caesarean delivery and preterm births (Joy & Sivakumar, 2012). Diabetes is a common complication of pregnancy. Patients can be separated into two, namely those who had previously known about diabetes and those diagnosed with diabetes during pregnancy (gestational). Maternal factors obtained in mothers with GDM are hypertension, preeclampsia, and increased risk of caesarean section (Huang et al., 2020).

Maternal glucose levels are unstable and it can cause fetal death in utero, which is a typical occurrence in women with diabetes. The fetus exposed to hyperglycemia tends to asphyxia and

acidosis although the exact mechanism is unclear, but is thought ketoacidosis has close links with the death of the fetus. When maternal or blood glucose levels are within normal limits, the death of the fetus in the uterus is rare (Alberico et al., 2017). Hyperinsulinemia that occurs in the fetus will increase the metabolic rate and oxygen needs to deal with situations such as hyperglycemia, ketoacidosis, pre-eclampsia and vascular disease, which can reduce blood flow and oxygenation placenta-utero fetus. The frequency of fetal death in utero or stillbirth ranged from 15-20%. An attempt to avoid the sudden death of the fetus in the womb is to terminate the pregnancy a few weeks before term (Alia et al., 2019).

The risk factors occur in maternal age between 16-28 years old, women with multigravida, maternal history of diabetes mellitus and non-diabetic mothers (Joy & Sivakumar, 2012). Family history of diabetes mellitus has a strong correlation with GDM. Complications that arise are PIH (pregnancy induced hypertension), hypothyroidism, and caesarean delivery. GDM causes significant complications, especially for mother and the fetus, including preeclampsia, eclampsia, polyhydramnios, fetal macrosomia, birth trauma, caesarean delivery, neonatal metabolic complications and perinatal mortality (Soheilykhah et al., 2010). In this study, the opening of the cervix during delivering is not significant, because the action is performed by a medical team to spur the cervical dilatation. However, these measures do not give good results, so the operative action was done. Caesarean delivery is one of the complications of GDM. This study is consistent with studies conducted by researchers in that the effect of GDM on the pregnancy occurred because of the same risk factors, namely maternal age in the range of 20-28 years, caesarean delivery, and recurrent miscarriage.

Theme 3: Experiences of mothers in the extra effort to keep her pregnancy

Maintaining the pregnancy makes the mother desperate to retain the fetus and her own health. Various efforts have been done for mother and the fetus to achieve good condition and wellbeing. The experience of mothers to keep a longer pregnancy is to maintain fetal maturity by way of check-ups to the hospital (Alia et al., 2019). Another effort made by mothers is doing movement exercises during pregnancy, doing routine blood sugar control and continuously making efforts for healthcare treatment (Alia et al., 2019; Dhingra & Ahuja, 2016).

When it was known that mother had diabetes during pregnancy, so the postpartum treatment efforts are also continued (Ashraf et al., 2019). It is stated that monthly maternal health status and blood sugar checkup are performed. Mother is still taking medication to maintain the condition of her DM. The results showed that after a mother is known to suffer from diabetes during pregnancy, there are many efforts to keep her pregnancy. Maintaining pregnancy with routine antenatal care is one important factor to consistently ensure better fetal outcome despite suffering from diabetes mellitus. Extra effort to maintain the pregnancy is part of the learning process. Along with the process of pregnancy, the mother experiences such conditions as the presence of an increase in blood pressure, edema of the extremities, nausea and excessive vomiting, decreased fetal condition, and unreached gestational months. The mother's condition is in a state required to maintain the pregnancy. Therefore, they begin to adjust or adapt to the conditions of their pregnancy with diabetes. A condition that causes mothers to continue to strive to maintain the pregnancy and improve her health is by maintaining healthy adaptive behavior (Ashraf et al., 2019; Dhingra & Ahuja, 2016).

Adaptation is the response of individuals to defend themselves in their environment. Participants showed a response of adaptation to their pregnancy with the extra effort to keep their pregnancy. In a nursing care view, the holistic human being is an individual. In a holistic concept, the human figure is seen as a whole, which is able to adapt as a whole. Adaptation is one of the nursing theories and explains how individuals or clients can improve their health by maintaining adaptive behavior and maladaptive behavioral change. The response that causes a decrease in the integrity of the body will lead to an individual's needs and causes or attempts to respond through certain behaviors and to adapt. Everybody always tries to overcome changes in health status (Ashraf et al., 2019).

The relation of the nursing theory of adaptation with the results of this study are the experiences of mothers in the diagnosis of GDM; mothers have an adaptive response to maintain the pregnancy with the aim that there is harmony between the mother and fetus in the process of her pregnancy so that later there is a good pregnancy outcome. Various behavioral adaptations are performed by mothers checking maturity of the fetus at the hospital, maternal movement exercises during pregnancy, blood sugar routine checks and also efforts on an ongoing basis to healthcare treatment (Ashraf et al., 2019; Dhingra & Ahuja, 2016).

Doing exercise and movement is also an option to keep the mother's pregnancy. Various ways of activities and exercises are performed by the mother. Another exercise is walking. It is pointed out that it is a useful exercise to improve blood glucose levels. Weight gain and number of pregnancy may increase the risk of diabetes mellitus; this suggests that insulin resistance may accelerate the decline in beta cell function, likely causing diabetes (Durnwald, 2015). Treatment for pregnant women includes efforts to reduce insulin resistance with exercise.

Proper exercise recommended by the American College of Obstetricians and Gynecologists (ACOG) is running, cycling in a special place, light aerobics, and swimming (Dhingra & Ahuja, 2016). Each exercise

begins from 5-10 minutes to warm up including flexibility exercises to reduce the risk of musculoskeletal injury during exercise. After that, it is followed by recovery after exercise. There are three important things in the endocrine response to exercise, which lowers plasma insulin, increases sympathetic nerve activity due to changes in insulin counter regulatory hormones, and hormones increase sodium and water balance (Mottola & Artal, 2016). The indication to stop the practice and conduct medical evaluations is when there is vaginal bleeding, faintness, decreased fetal activity, generalized edema, and low back pain.

Theme 4: Variation of life experiences of mothers during pregnancy, delivering, and postpartum baby

Life experience is a history that is very important for mothers to cope with life in a better future. Moreover, for mothers with GDM have the experiences stored in memory and it cannot be forgotten because of their condition during pregnancy, delivering, and postpartum diabetes. The amount of experience is summarized in the diversity of life experience variations of the mother (Shrestha et al., 2019).

Life experience of mothers with GDM during pregnancy, delivering, and the postpartum period are very important moments. There is a change of mindset in mothers to always maintain the health of themselves and their babies. Due to the condition of the mother's own experience she is able to adopt a good lifestyle, the mother becomes aware of baby care, and there is always an attempt from the mother to maintain the blood sugar levels (Ashraf et al., 2019; Dhingra & Ahuja, 2016).

Mothers experience in consuming food and beverages is a serious thing to be considered. The right and proper nutrition can control blood sugar levels. Diet is an important initial step in the management of GDM aimed at achieving normoglycemia and to generate growth and optimal fetal development. However, it should be kept in mind that putting together a diet in mothers with GDM is necessary, not solely to achieve normoglycemia, but setting both the number of calories diet and food composition must be taken into account for the growth of the fetus in order to produce a healthy baby (Moreno-Castilla et al., 2016).

The results of this study showed that mothers who consume herbal remedies can relieve numbness and the body becomes easily tired. Mothers take herbs because there is the suggestion that taking an oral medication will earn ongoing insulin therapy to control blood sugar levels. However, other participants also believed that during pregnancy they would have to use insulin to control their blood sugar levels. If they do not take medication from a doctor, fear will happen and this influences the fetus. The variety of herbs, oral medications, and insulin usage makes mothers with GDM have a diversity of experience to control blood sugar levels to maintain good health (Dhingra & Ahuja, 2016; Xu et al., 2019).

The results of this study also showed for mothers undergoing operative delivery in patients with lumbar anesthesia that there are communications between patients and doctors in the surgery process. Communication is what makes mothers have life experience so that delivery by way of operative delivery is not scary, but it is a labor that can be passed to either because the mother can see the baby's birth (Sunny et al., 2020).

Life experience with GDM and birth process influence mothers to determine to use contraception. Contraception has several different kinds of methods and is aimed to be tailored to the needs of the users. However, various methods are still not able to be an alternative option for some women (Kiley & Griffin, 2015). This is the reason for a mother with a history of GDM to use contraception.

Women with a history of DM should use effective contraception to reduce pregnancy which is accompanied by hyperglycemias. Long-term management with low-dose combined oral contraceptives do not appear to increase the risk of diabetes after pregnancy. Intra-uterine device (IUD) is the most effective contraceptive, as it is metabolically neutral. Conversely the use of progestin-containing contraceptives during lactation may increase the risk of diabetes (Kiley & Griffin, 2015).

This study also indicates the presence of life experience for the mother means she continues to strive to maintain lifestyle and diet. This is done with the goal of staying healthy so mothers can provide care to the children. Mothers' experience of maintaining diet and lifestyle is one of the efforts to achieve normal glucose levels in order to generate growth and optimal fetal development. Nutritional therapy is the mainstay of therapy in the management of diabetes in which the aim is to provide adequate nutrition for both mother and fetus, controlling blood glucose levels and prevent the occurrence of ketosis (increased levels of ketoses in the blood) (Moreno-Castilla et al., 2016).

Theme 5: Maternal perception of their role during their pregnancy

In carrying out the role as a mother, there are a variety of perceptions that arise within the mother. Feeling of helplessness that is followed by sadness will affect the condition of the child's birth, for example fetus born with a gestational age of 9 months with severe weight of 16 ounces. The role of the mother can be considered achieved when the mother feels there is harmony within herself with her roles and expectations (Shrestha et al., 2019). The response of the expectations of their behavior is shown by a reflective and visible role in the concern and caring for the baby's ability, attitude and her love for the baby and taking on the responsibilities of the role. Maternal role attainment leads us to consider

the many variables that have an impact on the identified identity of the mother role. Environment variables are family and friends, which consist of mother, baby and father (the couple) (Ashraf et al., 2019).

The results of this study indicate a maternal perception of a sense of powerlessness in their role as mothers. This is evidenced by anxiety to the child if the child is born with the degenerative disease DM. Sadness of the mother also affects their perception in their role as mothers, and, therefore, contributes to inadequate coping mechanisms. This study also obtains the result that pregnant women with GDM have not been able to reach their full potential role as a mother and are merely doing a part and doing their job as a housewife. Although mothers had a history of DM pain, this does not affect the relationship between the mother and her husband and baby (Shrestha et al., 2019). Mothers are expected to have a sense of empathy, self-concept, be able to accept things when the baby is born, have a good attitude in the l role as mother, and the mother has a good role when there is a conflict in her life.

Related to the development of maternal role attainment is that the results of this study are not yet fully capable of achieving the maternal role as a mother. In the context of life experience in achieving the role of the mother, the baby is born and the husband is a partner in the achievement of the mother whereby the mother is able to interact with the baby and husband. This is evidenced by the support of the husband of the mother during pregnancy and postpartum diabetes mellitus in order to continue to provide regular support to control blood sugar levels and taking the baby to the pediatrician so that the baby's sugar levels are well-controlled. Mother-to-infant interaction is indicated by the mother in regard to the baby's care. Feelings of helplessness and sadness are psychological triggers reduce the ability of the mother to perform her role as a mother. Life experience is the cause of the mother's perception to play the role as a mother (Shrestha et al., 2019).

Theme 6: The factors that support the development and maternal role attainment

Development and the role of the mother is reached if there is support from husband, family support, and commitment of the mother. Support of her husband, family, and the mother's commitment is the support system that can sustain how the mother is able to achieve her role as a mother. The results of this study indicate the existence of a commitment that arises from the heart to perform the role as the mother, then the mother maintains her health, physical and spiritual needs for the child. It is also revealed that she should always be eager to live in order to remain able to care for the child. Caring for children is indicated by providing healthy foods such as vegetables, small portions of rice, and fruit (Shrestha et al., 2019). Mother's spirit for life is offset by exercise. It reveals that the mother's commitment to families is to have a good family, as a family is needed to help each other and respect each other. The mother's husband is the commitment to give the best to way to educate children properly so that later the child will be useful.

The results of this study indicate that the factors that support the development and achievement of the mother's role is the support system in the form of support provided by the mother's husband and family. The support given by the husband to the mother is to continue to remind about routine treatment, giving spirit, and urging to keep eating. The support of the family in the form of suggestions is doing routines check-up and treatment. And a commitment to themselves to play the role as a mother so she is able to achieve. This shows the seriousness of the commitment in achieving the maternal role (Shrestha et al., 2019).

A good support system is important for the mother to perform her role as a mother. Husband and family support is very important because with a good rapport from her husband and family it contributes to the achievement of the role in a way that cannot be duplicated by others. The role of the mother and the achievement of relationship with her husband and family support is located at micro system components and mesosystem level. Microsystems are the relationship between mother and their spouse and is a highly influential component of the maternal role attainment. In this study a good relationship with the husband and the mother was able to provide support to the mother when the mother underwent GDM and in the postnatal period to reach her role as a mother. Family enters into mesosystem components that directly affect the microsystems' components so that the mother is able to achieve her role. Healthcare professionals, especially nurses, play a role in the overall maternal role identity recognition stage. Prenatal education, teaching one of the classes, formal or informal, helps mothers during the preparation phase of an effort and commitment and the mother is able to achieve her role (Shrestha et al., 2019).

Theme 7: Experience in integrating maternal role as mother

The identity of the mother's role can be achieved when the mother is able to integrate herself into the role with other roles and her suitability to these. The results of this study indicate a role in achieving identity is that the mother can show the parents' happiness. It is a way of showing affection for her child. The mother's experience in integrating other roles is the simplicity of life and the mothers being able to socialize with the neighbors (Shrestha et al., 2019). Another mother's experience of integrating identity is the role of mothers' understanding of the task and role as a mother.

The results of this study also showed that, in reaching her role as a mother, they thought that doing household chores, including caring for children of providing food, washing clothes, and educating

children is a core obligation which must be implemented. The role of a person's identity stage is achieved when the mother's role integrates herself with the suitability of the system itself and her other roles, she will be secure in her identity as a mother, emotionally committed to her baby and feel a sense of harmony, comfort, and ability in the role (Shrestha et al., 2019).

Theme 8: Gaps and desires of people with diabetes in mothers receiving healthcare

Healthy covers body and spirit so that one is able to perform any tasks and activities without any obstacles. In a state hospital, everyone hopes to get good healthcare from of the healthcare a team of. Hope will bring enthusiasm from the mother to continue and defend herself from adversity because of DM, thus they still continue to run their daily life as well (Shrestha et al., 2019).

Some of the factors that contribute to the provision of health services is the availability of competent health resources to provide complete healthcare and the availability of adequate infrastructure. Hope and dissatisfaction are trigger factors of the gap and maternal desire with GDM in receiving healthcare. This expectation is for the other side dealing with diabetes during pregnancy, government, health personnel and other hospitals in providing health services. This expectation is basically very good and, if it is realized together, that would trigger better health service delivery in pregnant women with diabetes, the presence of trust among patients with stakeholders, and the incidence of gestational diabetes can be reduced (Eeg-Olofsson et al., 2020).

The results of this study indicate the presence of maternal dissatisfaction against the government because the government was perceived as having lack of attention to the patient. On the other hand, health workers also provide services less well, and information about pregnant women with diabetes is not clearly communicated. It is said that, after the mother's check-up, they do not get information from health workers. The expression of these participants is a negative image of the government and health workers in delivering health services (Ashraf et al., 2019).

Dissatisfaction in pregnant women who suffer from diabetes is indicated by the data that the mothers feels government and health workers are lacking in providing health services, and there is lack of information from health personnel to provide education about infant care. The results of this study also show the triangulation of obstetricians and midwives, that the patient feeling satisfied and not satisfied is a relative thing and there are no specific indicators to measure satisfaction and dissatisfaction. It is emphasized that the team of healthcare providers, in carrying out its duties and obligations to patients, should be in accordance with SOP or the standard operating procedure that is in the hospital (Ashraf et al., 2019; Sunny et al., 2020). And every hospital is believed to have SOP and SOP in providing healthcare to mothers with GDM.

CONCLUSION

Life experience of pregnant women with GDM in Yogyakarta shows diversity. Mothers' experience in integrating her role identity as a mother with GDM can receive health services. Mothers are able to internalize their role as a mother. Mothers' life experience in achieving her role as a mother with DMG is less than optimal. The achievement of the mother's role in the microsystem component has not been fully achieved because mothers only carry out routine tasks as housewives.

Life experience in achieving maternal role as a mother is less than optimal with GDM. Maternal role attainment at microsystem component level has not been fully achieved because the mother only carries out routine duties as a housewife only. Pregnant women with GDM are advised to routinely do antenatal care, do exercise and have a proper diet. The recommended contraception is IUD (intra uterine device), which is a normal contraceptive after delivery and does not affect the hormones that cause an increase in blood sugar levels. GDM screening needs to be done at the beginning of the mother starting antenatal care.

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