RESEARCH ARTICLE

Postpartum Depression In The Ghanaian Context: A Concept Analysis

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Abstract

Background: Postpartum is a unique period in the lives of women with childbirth but presents with postpartum depression, which challenges the mother, infants, and families. In the global and Ghanaian setting, postpartum depression is a mental disorder that impedes maternal function; however, it is an indistinct concept. This article analyses the concept of postpartum depression using the Avant and Walker strategy.

Objective: The article aims to analyse the concept of postpartum depression and determine the defining attributes, antecedents and consequences.

Materials and methods: Analysis of postpartum depression was done using the Avant and Walker strategy of concept analysis.

Results: Deductive analysis was employed to find the defining attributes of postpartum depression which were mood changes, tiredness, inability to sleep, low self-esteem, tearfulness, loss of appetite, feelings of inadequacy, irritability, loss of interest and enjoyment, reduced energy, distress, detachment from baby, worry about injury to the infant, and feeling of guilt about motherhood role performance. The identified antecedents were the presence of pregnancy, labour, childbirth and its physiological and psychological stress. The consequence of postpartum depression was poor cognitive function of the infant, nutritional defects, mortalities associated with deprived infant care, maternal self-care deficit, social interaction impairment and inability to perform parental roles.

Conclusion: The defining attributes and consequences can improve the identification of women with postpartum depression in Ghana and subsequently increase diagnosis and treatment.

Keywords: Concept analysis, postpartum depression, Ghana, mood changes, childbirth, postpartum period.

Introduction

Postpartum depression is a maternal mental disorder that presents a crucial challenge for mothers, their infants and their families. Worldwide, postpartum depression affects 17% of mothers of all ages and is a cause of disability among mothers in the postpartum period (WHO, 2017; Wang et al., 2021). Postpartum depression has negative consequences for the mother and infants, and despite the adverse effects posed by postpartum depression, the definition is relative and arguable. Postpartum depression has been defined as mood disorders that persist more than two weeks after childbirth (O'Hara & Mc Cabe, 2013). The definition of postpartum depression has been established as a mental disorder among mothers after childbirth; however, the onset of postpartum depression has been a controversial issue in literature with varying suggestions on the time the disorder starts (Alzahrani et al., 2022; Chen et al., 2022). Evidence from studies has reported different times of onset of postpartum depression, such as two weeks and any point of time within one year (Wang et al., 2021; Thapa et al., 2014). Studies have also suggested that, in extreme cases, postpartum depression can also occur one year after childbirth (Moraes et al., 2017; Abadiga,

2019; Necho et al., 2020). The Ghanaian setting might also have a similar onset that is worth exploring. Despite the arguable nature of the onset of postpartum depression, a distinct differential attribute of postpartum depression is its occurrence in the postpartum period (Mughal et al., 2022).

The measurements of postpartum depression vary in the literature, and examples of the tools used are the Edinburgh postpartum depression scale, Beck postpartum inventory tool, Patient Health questionnaire versions two and nine, Diagnostic Statistical Manual of Mental Disorders version five for detection of depression, Screening Protocol for Antenatal Depression (SPADe). The different tools utilised different cutoff scores for screening and diagnosis of postpartum depression, which might have brought disparities in the prevalence (Özcan et al., 2017; Cui et al., 2022). Evidence has also suggested that some attributes of postpartum depression, such as fatigue, tiredness, and loss of appetite, might be present in postnatal blues, a transient mode disorder that resolves after two weeks postpartum (Chasanah et al., 2022). Therefore, it is challenging to distinguish the attributes of postpartum blues from postpartum depression. Although the attributes have been reported in studies, variation occurs depending on the individual mother's experience, geographical setting and cultural influences (Rodríguez et al., 2020; Smorti et al., 2019; Wang et al., 2021).

Mothers with postpartum depression suffer the consequence of the inability to care for themselves and the infant and social withdrawal, and in extreme cases, suicide and infanticide can occur (Cui et al., 2022; Anokye et al., 2018). Although there might be similarities in the adverse effects of postpartum depression in Ghana and other settings, the mothers' experiences may differ. The attributes of postpartum depression have been reported in other settings in the literature and show significant variations in different contexts. Even though postpartum depression is a common phenomenon, the concept of postpartum depression is easily confused with other similar concepts, such as postpartum blues and postpartum psychosis, which may interrupt prompt interventions. Therefore, the purpose of this analysis is to identify and clarify the definitions and attributes of postpartum depression in the context of Ghana to provide a clearer understanding of the concept.

The analysis will focus on the definition, attributes, antecedents, and consequences of postpartum depression as well as measurements and samples of a model, borderline, illegitimate, invented and contrary cases in order to differentiate between the concepts of postpartum depression employing the Walker and Avant's (2011) concept analysis methodology.

Materials and Methods

Concept Analysis

This article used a concept analysis approach, and the Avant and Walker strategy was employed with the recommended steps followed (Walker & Avant, 2011). The steps were identifying the concept and determining the defining attributes of postpartum depression till saturation was reached. The eight steps of the process of concept analysis by Walker and Avant (2011) can be found in Table 1.

The concept identified for the analysis in this article was postpartum depression. The model case was presented to determine all the defining attributes connected with postpartum depression. Related, contrary, borderline and illegitimate cases were also presented to help differentiate postpartum depression from other concepts to enhance a better understanding of the concept. Empirical referents illustrate the current theoretical perspective of the postpartum depression concept.

Data Sources

Data was collected through online resources such as dictionaries, published articles, reviews, reports, and meta-analyses from Google, Google Scholar, CINAHL, HINARI, OpenDOAR, and PubMed. The search was done from articles published in English. The search terms used were postpartum depression, childbirth, postpartum period, Ghana, postnatal depression, and maternal mental disorders. Recent articles included in the analysis were between 2016 and 2022. However, a few articles, one published in 1984 and a few from 2009 to 2014, were used in the analysis to provide a clear understanding of the concept and to demonstrate the relevance of how the concept of postpartum depression has evolved over the

Table 1: Process of concept Analysis

Steps	Process	Description and Purpose
1	Identifying the concept	Concept selection for analysis determines what is being analysed
2	determining the purpose of the analysis	Focus on the intention of the concept analysis to identify need
3	identifying the applications of the concept	Identify many uses of the concept to identify the current uses
4	determining the defining attributes of the concept	Establish commonly uses of the attribute to analyse current usage
5	Construct a model case	Use an example to explain all the defining attributes to ensure better understanding of the concept
6	Construct additional cases to	Provide examples to illustrate what the concept does not define.
7	Identify antecedents and consequences	Antecedence are events occurring prior to the concept. Consequences are the results emanating from the occurrence of the concept. Both antecedents and consequence explain the valid usage of the concept.
8.	Define empirical referents	Phenomena existing to create the occurrence of the concept and helps to validate the concept.

years. Most of the articles used were original and peer-reviewed.

A total of 30 articles were included in the analysis of the postpartum depression concept. In addition, some articles were cited because of their relevant information about the concept and provided a clearer explanation of postpartum depression.

Postpartum depression, as defined by the online Oxford dictionary, was used in this article. Additionally, articles by Putnam et al., O'Hara et al., Mughal et al., Nurul, Wisner, Rezaie-Keikhaie et al. Hung et al., Solomon et al., Batt et al. and Ding et al. provided a clear and useful definition of postpartum depression. The definition was used to identify postpartum depression from published articles.

The theoretical perspective of postpartum depression was described using articles such as Adamu et al., Gelay et al., Adeyemo et al., Kariuki et al., Gebregziabher et al., Anokye et al., Paddy et al., Sefogah et al., Wemakor et al. Antecedents and consequences of postpartum depression were identified and described to enhance understanding and improve identification of mothers with the disorder in Ghana.

Definition of postpartum depression

Postpartum depression is crucial when considering maternal health in the postpartum period. This section will discuss the definition of postpartum depression and its onset in the postpartum period. The central focus of this section will be on how postpartum depression has been defined in literature, as well as the onset of the disorder in general and in the context of Ghana.

Some authors with different dimensions have widely defined postpartum depression, which remains controversial. Postpartum depression was previously defined as postpartum affective psychosis after childbirth (Hopkins et al., 1984). In recent times, theoretical development and further research have led to a more distinct definition of postpartum due to its link with maternal blues and classification as a psychotic illness, which hindered treatment (O'Hara & Swain, 2009; Dadi et al., 2020). Postpartum depression is defined in the dictionary as depression suffered by a mother following childbirth, arising from hormonal changes, psychological adjustment to motherhood, and fatigue (Oxford Languages, 2022). Postpartum depression has been described as a mood disorder occurring four weeks in the postpartum period (Putnam et al., 2015). Some authors agree that postpartum depression is a significant mood disorder that persists two weeks after childbirth (O'Hara & McCabe, 2013; Mughal et al., 2022). However, Mughal et al. (2022) emphasise that postpartum blues, a transient mood disorder, can occur and is characterised by crying, tiredness and difficulty in sleeping in the immediate postpartum period but resolves by the second week of the postpartum period. The transient nature of postpartum blues differentiates it from postpartum depression; however, other studies also argue that the blues resolve after several weeks, making the diagnosis of postpartum depression difficult (Alfiyah, 2019; Rezaie-Keikhaie et al., 2020). The inconclusive evidence on when postpartum blues resolves makes the definition and diagnosis of postpartum depression challenging. A study examining the definition of postpartum depression and its onset established that postpartum depression is a mood disorder; meanwhile, the actual onset of the disorder in the study was not established (Wisner et al., 2010). Although there is consensus on postpartum depression as a mood disorder, geographical disparity may present different meanings of postpartum depression worth exploring in the African background.

Postpartum depression in the African setting has been defined as a mood disorder starting a few weeks into the postpartum period (Hung et al., 2014). Again, postpartum depression has also been defined in other studies as a mood disorder which is a consistent, distinct character in the postpartum period among women in Africa (Adamu & Adinew, 2018; Gelaye et al., 2013; Adeyemo et al., 2020). Postpartum depression in Ghana also follows the same trend of definition, being a disorder with mood distortions of varying degrees in the woman after childbirth (Anokye et al., 2018). While evidence suggests similarity in the definition of postpartum depression, the earlier mentioned authors have inconsistency with the onset. Hence, the onset of postpartum depression remains debatable and worth exploring.

Onset of Postpartum Depression

The onset of postpartum depression varies in different studies globally. The reported trends in the onset of depression among postpartum women show onset ranging from two weeks to twelve months after delivery (Wang et al., 2021). The description of the onset of postpartum depression in Africa is not definite. Studies have reported evidence of onset in variable periods, which is consistent with the evidence in literature from other continents (Kariuki et al., 2022; Gebregziabher et al., 2020). For example, a study reported postpartum depression onset at four weeks, while others reported occurrences of postpartum depression at six weeks, eight weeks, and up to twenty-four- four months in the postpartum period. A meta-analysis conducted among mothers with postpartum depression in Africa reported variations in the onset of postpartum depression, which was described as a limitation in the studies used in the review and meta-analysis (Necho et al., 2020; Nweke et al., 2022). It is convincing that there are variations in the onset of postpartum depression among women in the postpartum period. Therefore, it is essential to explore the onset of postpartum depression further to clarify the inclusion of the onset and provide a shred of conclusive evidence in the different settings. The onset of postpartum depression in the Ghanaian context has also shown significant variations, with some women experiencing postpartum depression at two weeks postpartum and others at any point within the first year after childbirth (Sefogah et al., 2020; Anokye et al., 2018).

Characteristics of postpartum depression

The characteristics that identify that a mother has postpartum depression have been reported as mood changes, tiredness, inability to sleep, low self-esteem,

tearfulness, loss of appetite, feelings of inadequacy, irritability, reduced energy resulting in diminished activity, withdrawal from the family, distress, detached from baby, worry about injury to the infant, and feeling of guilt about motherhood role performance in the postpartum period (Solomon et al., 2016; Batt et al., 2020; Ding et al., 2020). The characteristics of postpartum depression, such as low self-esteem, feelings of inadequacy and guilt about the poor maternal role, might be the manifestations of some mothers in the postpartum period that may go unnoticed without careful attention to their presentation and assessment in the postpartum period because of its instinctive nature (Alfiyah, 2019). Literature shows that the characteristics cut across different settings, including Africa (Damtie et al., 2021).

Evidence from a study reported anxiety, stress, guilt about maternal role performance resulting from lack of social support and distress from marital dissatisfaction among Ghanaian women (Paddy et al., 2021). Another characteristic among Ghanaian postpartum women is detachment from the infant, resulting in growth challenges such as stunting (Wemakor & Mensah, 2016). The signs and symptoms of postpartum depression can range from minor to severe, which may warrant interventions and hospitalisation among women in Ghana (Gold et al., 2013). Evidence from literature has extensively established postpartum depression as a mood disorder in the postpartum period. However, the severity of postpartum depression varies among women. The definition of postpartum depression, its onset and its characteristics give an understanding of the nature of postpartum depression; however, the measurements of postpartum depression are a vital component of the concept of postpartum depression.

Measurements of postpartum depression

The accuracy of a tool to screen or diagnose postpartum depression is a controversial and debatable subject in literature. It is worth noting that an accurate tool for

diagnosing and screening for postpartum depression is arguable; meanwhile, the performance of a tool for screening and diagnosis of postpartum depression is dependent on factors such as time of administration, geographical setting and type of measurement (Ukatu et al., 2018). The most widely used tool among the lots for measuring postpartum depression is the Edinburgh postnatal depression scale with translation into several languages (Montazeri et al., 2007; Shrestha et al., 2016; Blackmore et al., 2021). In the Ghanaian setting, the most widely used tool for assessing postpartum depression is the patient health question version nine, which has shown more acceptability and good internal consistency (Weobong et al., 2009). Two of the studies in Ghana used a cutoff for postpartum depression at a total score of five or more on the scale, and another study used a cutoff score of 11 to diagnose postpartum depression (Weobong et al., 2009; Sefogah et al., 2020; Guo et al., 2013). In the studies conducted in Ghana, it is not arguable that the concept of postpartum depression was measured at different periods with varying cutoff points, considering the lack of consensus on the actual time for screening and diagnosis of the condition.

Operational Definition

In Ghana, the concept of postpartum depression is established as a mood disorder; however, the onset is not definite. The characteristics vary from person to person, with a disparity in severity. The tools and measurements are also different in Ghana, and these differences hinder the diagnoses and interventions for postpartum depression.

The summary of the results of the definition, characteristics, onset, and diagnostic tools in the Ghanaian and global contexts is provided in Table 2.

Determining the defining attributes

The defining attributes are the signs and symptoms that characterise and help to differentiate the concept of postpartum depression. The defining attributes from the

Table 2: Summary of results for the concept of postpartum depression

	Ghanaian Context	African/Global Context
Definition	Disorder with mood distortions of varying degrees in the mother after childbirth (Anokye et al., 2018, Sefogah et al., 2020,)	Mood disorder after child birth (O'Hara & McCabe 2013, Mughal 2022, Wisner et al., 2010, Adamu & Adinew, 2018, Gelaye et al., 2013, Adeyemo et al., 2020)
Characteristics	Anxiety, stress, guilt about maternal role performance resulting from lack of social support, distress from marital dissatisfaction and detachment from the infant (Paddy et al., 2021, Wemakor & Mensah 2016)	Mood changes, tiredness, inability to sleep, low self-esteem, tearfulness, loss of appetite, feelings of inadequacy, irritability, reduced energy resulting in diminished activity, withdrawal from the family, distress, detached from baby, worry about injury to the infant, and feeling of guilt about motherhood role performance in the postpartum period (Solomon et al, 2016, Batt et al, 2020, Ding et al, 2020
Onset	No definite onset: two weeks postpartum and others at any point within the first year after childbirth (Sefogah et al., 2020, Anokye et al., 2018)	Variable onset; four weeks, six weeks, eight weeks and up to twenty- four months (Necho et al., 2020, Nweke et al., 2022)
Diagnostic tools	Most frequently used postpartum diagnostic tool is the Patient Health Question (PHQ) version nine (Weobong et al., 2009, Sefogah et al., 2020, Guo et al., 2013)	Most widely used postpartum depression tool is the Edinburgh postnatal depression scale (Montazeri et al., 2007, Shrestha et al., 2016, Blackmore et al., 2021)

empirical analysis are as follows: mood changes, tiredness, inability to sleep, low self-esteem, tearfulness, loss of appetite, feelings of inadequacy, irritability, loss of interest and enjoyment, reduced energy, distress, detachment from baby, worry about injury to the infant, and feeling of guilt about motherhood role performance. Some of the defining attributes are explained for better understanding and clarity.

Mood changes: Mood changes is the variation in a person's emotional state. Mood changes significantly affect the mother's ability to cope with situations in the postpartum period, requiring midwives and health teams to intervene for effective coping (Alba, 2021). Mothers with postpartum depression benefit from the support and coping strategies provided by midwives at the health facility and follow-up, which consequently reduces and prevent depression during the postpartum period (Ruiz et al., 2017).

Low self-esteem: Low self-esteem is the negative thought and lack of confidence about oneself that prevents one from doing what one wants (Fennell, 2005). Maternal low self-esteem hinders the care she needs to provide for herself and the infant. Low self-esteem is a character that demands behavioural therapy to help the mother elevate their esteem in the postpartum period (Jidong et al., 2021)

Distress: Distress is the expression of extreme anxiety, sorrow or pain and can be physical, emotional and psychological (Kita et al., 2015). Maternal distress in the postpartum period is a factor that requires attention by midwives to reduce its symptoms in the postpartum mother (Obrochta et al., 2020).

Detachment from baby: Detachment from the baby is disengagement or separation from the baby by the mother, which results in a decrease in love for the baby during the postpartum period (Hill & Flanagan, 2020). The detachment from the baby deprives the baby of breastfeeding, bonding and care from the mother. Maternal attachment, nutrition and bonding are essential for infant growth (Mathews et al., 2019). Hence the mother needs therapy and support to attach well to the baby.

Guilt about the maternal role: Maternal role is the process where the mother nurtures, protects, takes care of the baby and manages home activities (McNamara et al., 2019). The role becomes overwhelming with the presence of a new baby, unplanned activities and lack of support from family (Shrestha et al., 2019). Mothers feel guilty when they cannot assume their roles after childbirth or when the roles are overwhelming. Hence postpartum mothers need support and education from midwives and experienced family members to perform their roles with minimal stress (Heydarpour et al., 2022).

The defining attributes mentioned help to clarify the concept of postpartum depression. The defining attributes of the concept of postpartum depression peculiar to Ghana are distress, guilt about the maternal role, stress and anxiety. The cases, antecedents and consequences are also worth exploring for more understanding.

Model case

A model case depicts all the concept's attributes under analysis in actual life situations. The model case clarifies the concepts' attributes and provides a better understanding (Walker & Avant, 2011). Below is a model case for the concept of postpartum depression.

Mrs Eyemamekra Adom, a 20-year-old woman presented at the health center following the birth of her first child. Mrs Adom reported that although she is usually a cheerful person, since the birth of the child she had started feeling sad and anxious especially when taking care of the baby. She reported that she finds herself overwhelmed about selfcare, housework and caring for the baby. As a result, she felt guilty about her inability to perform her maternal role effectively. She was also distressed about her poor relationship with her husband. Mrs Adom was tearful and could sometimes cry, but she could not disclose it to anyone or report it to the midwife at the health center. She became detached from the baby and some of the family members. She could not sleep well and also lost her appetite for food. Mrs Adom was always tired with low energy levels. She felt inadequate about herself, with low self-esteem and worried about the baby. She lost interest in and enjoyment of activities.

Analysis: Mrs Adom started having mood changes, feeling anxious about the baby, guilty about her inability to perform her maternal role, and stressed; she was also distressed. She became detached from the baby. She could not sleep and lost her appetite for food. She felt tired with low energy levels. She felt inadequate and worried about the baby. She lost interest and enjoyment in activities. All these attributes exhibited by Mrs Adom depict the concept of postpartum depression.

Related case

Mrs Doyina Mayenka, a 28-year-old mother, started having attitude changes after discovering that her husband was cheating on her. Mrs Mayenka felt angry, inadequate and neglected her self-care and the house chores. She experiences pain about her poor relationship with her husband. Mrs Mayenka was upset and could shout at times and became detached from the family members. She slept less and was always weary with little energy levels. She felt inferior with low esteem, lost awareness and satisfaction with activities.

Analysis: Mrs Mayenka had attitude changes after discovering her husband was cheating on her. She felt angry, inadequate and neglected her self-care and the house chores. She experienced pain, upset and shouted at times. She slept less and was weary with little energy. She felt inferior, with low esteem and lost awareness. The attributes, in this case are not related to childbirth, but are synonymous with the concept of depression, which makes it a related case.

Contrary case

Contrary cases show the opposite side of the defining attributes and help to differentiate the concept of postpartum depression from other concepts. Below is a contrary case of postpartum depression.

Madam Ama Durowa, a 30 years old mother in the postpartum period, reported no stress from childbirth;

meanwhile, she was happy and enjoying her role due to support from significant others and family. She has a good appetite for food and usually eats. Madam Durowa reported to the midwife that she has a good relationship with her husband, which satisfies her with her marriage and enables her to get partner support and male involvement at the health facility. Madam Durowa reported a suitable attachment with her baby and has no course for worrying about the baby.

Analysis: In this case, Madam Durowa, a postpartum mother, reported no stress but was happy and enjoying her role as a mother due to the support family support she received. She eats well and normally. She received partner support and did not worry about her baby. The attributes, in this case, are contrary to the attributes of the concepts of postpartum depression.

Borderline case

A borderline case does not contain all the defining attributes. Furthermore, below is a sample of a borderline case.

Madam Josaa Anidaso, a 25-year-old mother, started experiencing mood changes, tearfulness and crying most of the time after childbirth. She reported assuming her role as a mother adequately with no guilt. Although she was stressed at some points in the postpartum period, it resolved due to the presence of social support offered by people in her community. Madam Anidaso recounted positive experiences about her labour and the postpartum period.

Analysis: Madam Anidaso experienced mood changes, tearfulness, crying and stress in the case. Although the attributes in the case are representative of the concept of postpartum depression, some of the attributes were absent, and this makes it a borderline case.

Illegitimate case

Illegitimate cases do not resemble the defining attribute, but help understand the concepts of interest. Below is a sample of an illegitimate case.

Ms. Asomdwe Nyame is 31-year-old women who gave birth to her first child by spontaneous vaginal delivery without complications. Ms. Asomdwe following child birth engages in substance abuse and start to smoke. She was visited by the community health nurse because she missed her postnatal care. The community nurse finds her sleeping while the baby was crying. She reported that she cannot cope with the baby and the housework. She felt weak, lethargic and had no appetite for food.

Analysis: This case is illegitimate because although Ms. Asomdwe shows signs of depression such as sleeping while the baby is crying, inability to cope with baby and housework, feeling weak, lethargic and poor appetite. The signs of depression were self-induced and will disappear if she stops the substance abuse.

Antecedents and consequences

The antecedents to the concept of postpartum depression exist in the presence of pregnancy, labour, childbirth and its physiological and psychological stress that translate into postpartum depression when it is not managed well in the postpartum period (Mokwena & Masike, 2020). Hormonal changes have also been reported as a forerunner for postpartum depression (Schiller et al., 2015). Evidence from studies in Ghana has also reported anxiety and stress in the postpartum period as a precedent for postpartum depression (Paddy et al., 2021). The prior occurrence of factors such as extremes of maternal age, marital dissatisfaction and blood transfusion after childbirth has predisposed some women to have postpartum depression in the Ghanaian context (Anokye et al., 2018; Sefogah et al., 2020). Birth complications, stillbirth, neonatal death, newborn ill health and delivery seasons have preceded postpartum depression among women in Ghana (Weobong et al., 2015). The factors leading to postpartum depression also affect the woman, infant and the entire family.

The consequences of postpartum depression are poor cognitive function of the infant, nutritional defects, and mortalities associated with deprived infant care (Slomian et al., 2019). The adverse effects of postpartum depression experienced by women have been reported to be a self-care deficit, social interaction impairment and inability to perform parental roles (Bhusal & Bhandari, 2018). The consequence of postpartum depression also negatively affects the women's ability to care for themselves and the infant resulting in care deficits and distorted activities of daily living in the postpartum period. In the Ghanaian setting, postpartum depression adversely affects infant nutrition, the women's ability to function in physical activities, socialise with members of the family and community and psychological well-being (Paddy et al., 2021; Wemakor & Mensah, 2016). Despite the seriousness of the adverse effects of postpartum depression that pose a challenge to the women and the family, the measurements of the concept to facilitate diagnosis and intervention lack consensus.

Empirical referents

Empirical referents are evident, confirmable, quantifiable aspects of a specific concept (Walker & Avant, 2011). The empirical referent of the concept of postpartum depression can be derived from the clear and observable phenomena of postpartum depression that can be ascertained through the observation of the characteristics exhibited by the women in the postpartum period through observation, conducting interviews and self-reported signs and symptoms.

Theoretical perspectives have also reported on other several tools for the measurement of postpartum depression. Beck postpartum inventory tool, Patient health questionnaire versions two, Diagnostic Statistical Manual of Mental Disorders version five for the detection of depression and Screening Protocol for Antenatal Depression (SPADe) are valid and reliable tools that directly assess the attributes and referents that characterise and measures postpartum depression (Chorwe-Sungani et al., 2022; Levis et al., 2020; Ukatu et al., 2018; Tolentino & Schmidt, 2018)

Clearly defining the attributes of the concept of postpartum depression might lead to establishing interventions to improve maternal mental health. Clarifying the attributes of postpartum depression provides better understanding

by midwives in the clinical area; hence assessment of the women will be done for prompt intervention and health outcome. More nursing and midwifery diagnoses on attributes of postpartum depression should be included in the diagnosis list to enhance the use of the concept in the clinical area.

Discussion

The discussion presents a comprehensive analysis of the concept of postpartum depression according to Walker and Avant (2011). The concept of postpartum depression is central to maternal mental health in Ghana and clear understanding is crucial for diagnoses and treatment. The analysis of the concept analysis of postpartum depression identifies the operational definition of the concept in the context of Ghana as a mood disorder in the postpartum period with onset two weeks after childbirth. It can occur at any time within the first year after childbirth (Anokye et al., 2018; Sefogah et al., 2020).

The defining attributes and characteristics of postpartum depression determined in the analysis were fifteen, which clearly show the symptoms that manifest when a postpartum woman has postpartum depression. The characteristics identified will enable health workers to recognise women with the disorder for prompt management and care. Identification of mothers with postpartum depression provides timely interventions to curtail the menace in the postpartum period. Evidence suggests that the introduction of early intervention in women with postpartum depression facilitates recovery and better maternal health outcomes (Jannati et al., 2021; Hahn et al., 2021). Ghana, like other resource-limited settings, has high levels of postpartum depression, according to studies mentioned earlier in the analysis. However, knowing and understanding the features of postpartum depression will provide midwives and doctors with innovative ways of prevention, identification of more women with the symptoms and early intervention. Studies have reported that finding innovative ways of identifying symptoms and providing interventions for women with postpartum depression, such as electronic health means, provides a unique opportunity for reducing postpartum depression (Lackie et al., 2021; Huh et al., 2023). Consequently, there would be enhanced maternal role performance, health, and well-being of the infant and the entire family when appropriate measures are employed in managing postpartum depression (Lin et al., 2023).

Despite the inclusion of postpartum depression as one of the topics in nursing and midwifery education, the skills and competencies in identifying women with postpartum depression are questionable. Students might have a superficial understanding and means to identify and provide adequate care for women with postpartum depression. Studies suggest that continuous education and research on postpartum depression improves screening and treatment outcomes (Clevesy et al., 2019; Sudhanthar et al., 2019). Hence this analysis might expand the knowledge and professional competencies of midwives and other related health professional in the care provision for women with postpartum depression. Furthermore, the concept analysis may set the pace for embracing postpartum depression as a priority area for health intervention due to the nature, consequence and unidentified tool for measurement by the health sector in Ghana. Concept analysis has proven to clarify concepts for better understanding and has evolved in tool development. Evidence from studies is conclusive that concept analysis enhances clarification of the concepts and provides dimensions for management (Sun et al., 2023).

The antecedents in this analysis suggest that postpartum depression occurs in the presence of pregnancy, labour, childbirth and its physiological and hormonal changes, anxiety, physical and psychological stress that translate into postpartum depression when it is not managed well in the postpartum period (Mokwena & Masike, 2020; Schiller et al., 2015; Paddy et al., 2021).

The existence of these antecedents will provide healthcare workers with a guide for the surveillance of postpartum women, early detection of symptoms, and prompt management.

The consequence identified in the analysis peculiar to the Ghanaian setting in terms of postpartum depression are infant malnutrition, maternal inability to function in physical activities, poor socialisation with members of the family, community and psychological unwellness. Postpartum women experiencing the consequences of postpartum depression need prompt attention to prevent morbidity and mortality. Early detection and management of postpartum depression are crucial for better treatment outcomes (Nweke et al., 2022). Furthermore, there is a need to create awareness about the characters, antecedents and consequences of postpartum depression to all childbearing women, families and communities for early recognition. Again, training and development of health workers' skills and competencies are necessary to recognize and manage postpartum depression. The screening and diagnostic tools used for postpartum depression are effective in screening and diagnosing postpartum; however, there can be errors (Levis et al., 2020; Ukatu et al., 2018). Management strategies include counselling, cognitive behavioural therapy and pharmacological modalities (Liu et al., 2022).

Limitations

The concept analysis of postpartum depression has the limitation of including studies published in English, which restricted the scope of the concept analysis.

Conclusion

The concept analysis of postpartum depression identifies the operational definition of the concept in the context of Ghana as a mood disorder in the postpartum period with onset two weeks after childbirth and at any time within the first after childbirth. This analysis suggests that the attributes are clearly defined, distinguishing postpartum depression from maternal blue and psychosis. The factors contributing to postpartum depression, the antecedents and consequences, and the measurements differ from other conditions.

Authors contribution

Naomi Kyeremaa Yeboa (NKY) and Ellen Chirwa (EC) conceptualized and designed the study, extracted literature,

Disclosure statement

No conflict of interest was reported by the author(s).

Ethical approval

Publicly accessible articles already published with ethical approval were used for the concept analysis hence no institutional ethics was sought.

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