

# Postpartum Depression Detection: Concept Analysis

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## Abstract

Postpartum depression is one of the health problems that may occur without being recognized which may lead to a serious adverse effect for mother and her child. Postpartum depression remain underestimated and unrecognized as many women are discharged without being detected as having PPD or even uneducated in order to seek for help when needed. Postpartum depression has a negative impact on both mother and the child wellbeing. Early detection is essential for mothers' and infants' safety. Postpartum depression is defined as "a disorder that is often unrecognized and undertreated". The aim of this paper is to go through an analysis for postpartum depression detection and get a clear picture about the definition, attributes, antecedents, consequences and its empirical References. Method: a review of the literature was conducted. Articles from 2013 to 2020 were included. Walker and Avant framework was used for concept analysis. Results: the search have found four attributes: time, risk factors, symptoms, and outcome. Also, the search have found the following antecedents: knowledge, screening and care. The consequences are access to mental health care and drawing the treatment line process. Conclusion: this analysis will help in discovering the suitable methods for detecting the postpartum depression to achieve high quality care for mothers and infants.

**Keywords:** Postpartum depression, screening, mothers.

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## 1. INTRODUCTION

Postpartum depression (PPD) is a disorder with long term complications for women and their infants. "The World Health Organization has identified major depression as the fourth leading cause of burden among all diseases, and the leading cause of years lived with disability" (Gjerdingen & Yawn, 2007, p. 2). Five symptoms such as swing moods, sleeping difficulties, absence of interests in activities, fatigue and inability to make decisions are considered a criteria for developing major depression. In addition, maternal distress, childhood emotional, behavioural and developmental problems are found to be associated with postpartum depression (Liberto, 2012). "PPD occurs in 10 to 15% of new mothers" (Sit & Wisner, 2009, p. 1). Around 50% of women, their depression continues up to 7 months after delivery (Sit & Wisner, 2009). Postpartum depression remains underestimated and unrecognized as many women are discharged without being detected as having PPD or even uneducated in order to seek for help when needed.

## 2. BACKGROUND

### 2.1. Significance of Postpartum Depression Detection

Postpartum depression is the most common problem among women after the childbirth. "Postpartum depression occurs in 10% to 20% of women who have recently given birth, but fewer than half of cases are recognized" (Gjerdingen & Yawn, 2007, p.1). Postpartum depression has a negative impact on both mother and the child wellbeing. Early detection is essential for mothers' and infants' safety. It will improve the clinical outcomes and treatments for mothers and their infants. Also, it will improve the screening tools that are used to detect the PPD. Early detection needs collaboration between healthcare providers to provide accurate diagnosis and deliver effective treatment plan and follow up (Gjerdingen & Yawn, 2007).

### 2.2. Concept Analysis

A concept is defined as "an abstract or generic idea generalized from particular instances" (Merriam-Webster, n.d., p. 1). Concept analysis is the process scrutinising the structure and basic elements of a

concept and end up with an operational definition, construct a statement or hypothesis and constructing instruments or interviewing guides before conducting a research (Walker & Avant, 2011). This analysis using Walker and Avant (2011) strategies came from the need to identify the concept of postnatal depression detection as an important outcome in the nursing care that provided to women during postnatal period. Also, to gain full understanding of the characteristics of postnatal depression detection from the literature.

### 2.3. Assumption

From our assumption, there are a lot of women who have depression after delivery that is undetected. So, early detection will help to improve the care delivery for both mothers and infants.

## 3. SELECTION AND AIM OF THE CONCEPT ANALYSIS

The objective of the study was to define the dominant concept of depression detection among postpartum women and how health care providers identify women who are at risk or with postpartum depression.

## 4. RESEARCH METHOD

### 4.1. Concept Analysis Method

Walker and Avant's (2011) Concept approach was used to explore in depth, its meaning and uses of postpartum depression detection and to distinguish this concept from any other concepts. The updated method contains eight steps: selection of the concept, definition of research, identification of uses of the concept, identification of properties, identification of the model case, identification of additional instances, identification of histories and implications and definition of the methodological sources.

### 4.2 Search Strategies

A review of the literature was performed, and only publications from 2013 to 2020 were found and included in this report. The quest technique was used to find the most current and up-to-date information on the meanings, characteristics, causes, and consequences of the concept of postpartum depression detection. The data also aided the researcher in developing the appropriate model, as well as highlighting recent misinterpretations of the concept of postpartum depression detection. The following terms were used to search the literature: 'postpartum and depression', 'postnatal and depression', 'puerperal and depression'. English articles were used. Online electronic databases via EBSCO Host: CINAHL, MEDLINE, psych INFO, ERIC, Science direct, we researched and applied to this article. Depression articles not related to postpartum, unpublished papers, titles and abstracts that were irrelevant and other unpublished papers were excluded.

## 5. RESULTS

### 5.1. Identify Uses of the Concept

The terminology "postpartum depression" is commonly used in nursing and medical fields (Mughal

*et al.*, 2021). Postpartum is defined as "the time period following childbirth" (Farlex Partner Medical Dictionary, 2012). Depression is defined as "a common and serious medical illness that negatively affects how you feel, the way you think and how you act" (American Psychiatric Association, n.d., p.1). Postpartum depression is "occurring in or being the period following childbirth" (Merriam-Webster, n.d., p. 1). Also, it is "a disorder that is often unrecognized and undertreated" (Merriam-Webster, n.d., p. 1). Postpartum depression was presented in the work of Cheryl Tatano Beck and defined as a non-psychotic major depressive disorder with differentiating diagnostic benchmark that it may start 4 weeks after birth and may also occur anytime within the first year after childbirth (Beck, 1996).

Detection is defined as the "act of discovery" (Farlex Partner Medical Dictionary, 2012). In biology detection is the "Act of detecting, discovery, the laying open of what was concealed or hidden or of what tends to elude observation" (Biology online, n.d.). Our operational definition for postpartum depression detection is the discovery of a state of depression in woman immediately after giving childbirth or within one year.

### 5.2. Related Concepts

Concepts that are utilized interchangeably with concept of interest (Walker & Avant, 2011). Postnatal depression screening is commonly used in the literatures. Other related concepts postpartum depression tracking, predicting and identifying (Depressão *et al.*, 2019; Lancet, 2016; Wang *et al.*, 2019)

### 5.3. Attributes of the Concept

Attributes are the characteristics that consistently emerge when the concept of postpartum depression detection is present or is being stated in the literature, and assist in illuminating that concept (Walker & Avant, 2011). The attributes for postpartum depression detection can be based on following; time, risk factors, symptoms, and outcome.

Time of presence of symptoms and time of screening are essential characteristics in detecting postpartum depression. Postpartum depression starts four to six weeks after delivery and continues for at least two weeks. However, a literature reported early depressive symptoms (1-2 weeks) and later depressive symptoms (3 – 6 months) (Stotts *et al.*, 2019). The common time of screening that are reported in literature was six weeks (Bina & Harrington, 2017). Also, it was stated that depression is evaluated 2 weeks, 4-6 weeks, and 3 months interval post-delivery (Abdollahpour *et al.*, 2019).

Factors that are commonly reported in the literature include the status of couples' relationship,

presence of stressful events in life, or violence (Waraphorn *et al.*, 2021; Tho Nhi *et al.*, 2019). Parental self-confidence also considered an important factor as postpartum women with low self-confidence are at greater risk to develop depression (Branquinho *et al.*, 2020; Kleinman & Reizer, 2018). Furthermore, women with low breastfeeding, self-efficacy, low quality of maternal and child interactions, and low quality of life have high rates of depression (Grisbrook, & Letourneau, 2021; Sahin, 2019).

#### 5.4. Cases

The following section offers the model, borderline, related, and contrary cases based on Walker and Avant (2011):

**5.4.1. Model Case.** All the attributes identified of the concept 'postpartum depression detection' contributed to the construction of a model case. The model case represents practical examples of the identified attributes and is described next.

Mother who have given birth 2 days ago. A nurse provided continues education about the postpartum depression and when they should seek for help. Also, nurses evaluate continuously the mother for any signs of depression. Signs and symptoms of depression have been taught to the patient. In the time of discharge, nurses provided all the necessary information to the mother with brochures and contact information of the hospital. Nurses asked questions to assess the mothers' understanding and they provided the time for mothers to reflect and ask questions. Follow up appointments up to 12 months were provided to the mother to ensure continuous evaluation for any signs and symptoms of postpartum depression.

**5.4.2. Borderline Case.** A borderline case contains most of the attributes of the concept being studied (Walker & Avant, 2011). The borderline case is represented next. Two days ago, a mother has given a birth. A nurse provided continues education about the postpartum depression and its signs and symptoms. Also, they are continuously evaluates for any signs of depression. When discharging the mother, nurses provided all the essential information to the mother. Follow up appointments were provided.

**5.4.3. Related Case.** Related case is not including all the attributes of model case (Walker & Avant, 2011). The related case is as the following: A mother has an education about the signs and symptoms about postpartum depression on the discharge time.

**5.4.4. Contrary Case.** Contrary case is not the concept of interest (Walker & Avant, 2011). Contrary case is as the following: A mother is given hand-out about the signs and symptoms about postpartum depression on the discharge time.

#### 5.5. Antecedents of Postpartum Depression

Antecedents are events or incidents that occur prior to the occurrence of the concept. Antecedents are the necessary skills required before the occurrence of an event (Walker & Avant, 2011). Antecedents include knowledge, screening and care. Low level of knowledge, low awareness among health care providers and women is a barrier to detect postpartum depression (Dadi *et al.*, 2021). Women and community knowledge about postpartum depression and its impact will help in detecting through decreasing the negative attitude toward depression and enhance the intention to get help (Branquinho *et al.*, 2020; Dadi *et al.*, 2021). Health care providers' level of knowledge about postpartum depression contributes to their level of confidence in assessing and education mothers regarding postpartum depression (Elshatarat *et al.*, 2018).

Identifying women at risk for postpartum depression is challenging because the symptoms may be due to other medical conditions that may occur during the postpartum period such as fatigue and low concentration that are a clinical manifestations of postpartum depression and also for anaemia that caused by loss of blood during delivery. However, causes of these conditions can be ruled out by clinical investigation (Munoz, Agruss, Haeger, & Sivertsen, 2006). Understanding how and when to detect postpartum depression through the performance of a screening by using a valid tool. Screening can be conducted first time in obstetric as a common setting. A second setting is the well-baby clinic when women come several times for their infants' check-up where the nurse have the opportunity to observe and assess for mothers who show problems when interacting with their infants as being aggressive (Munoz, Agruss, Haeger, & Sivertsen, 2006).

Antecedent that is related to women is help seeking and that is accomplished through interaction with other individual to attain support, guidance, information or care (Liberto, 2012). Women who recognize postpartum depression symptoms and aware of available resources will discuss their symptoms with maternal health nurses. Strategies that are used in caring for postpartum women can help in detecting depression and provide preventive care. This includes the presence of policies, guidelines, health care providers' commitment, availability of screening programs and health care system for perinatal mental health implementation (Dadi *et al.*, 2021). Screening during pregnancy for prejudice and socioeconomic disadvantage could detect women who are at risk of depression (Stepanikova & Kukla, 2017).

#### 5.6. Consequences

Consequences are events or incidents that occur following the occurrence of the concept. Consequences are the outcomes of manifestation of the concept (Walker and Avant, 2011). The two main

consequences that may result from detecting postpartum depression are the access to mental health care and drawing the treatment line process for women which involve pharmacological and non-pharmacological management. The first consequence is the access to perinatal mental health care which will enhance the women physiological health and wellbeing is a very essential within the health care system (Viveiros & Darling, 2019).

Help seeking, education, referral, counselling, and treatment are consequences of postpartum depression. Outlining treatment choices either pharmacological or non-pharmacological management for women with postpartum depression is a second consequence which is considered a main role of health care providers. These choices include psychotherapy, medication and other complementary and alternative strategies that can be used to improve the mood of the women. In addition, decision making can arise effectively if there is a collaboration between the mother and the health care provider and this will occur in a setting that values the women experience and their psychosocial environment (Sit & Wisner, 2005). Moreover, support can be emotional informational (advice or talking about concerns), tangible support (assistance with needs), or interaction support (doing enjoyable things) (Hetherington *et al.*, 2018).

### 5.7. Empirical Referents

One of the tools that are used for detecting the postpartum depression is the Structured Clinical Interview for DSM-II-R (SCID) (Spitzer *et al.*) to achieve a clinical diagnosis (Radloff, 1977). It is a common tool that is used to measure the postpartum depression. The value of kappa is 0.61 (Williams, *et al.*, 1992). Other self-report measures that are most commonly used for determining the depression status were the Edinburgh Postnatal Depression Scale (EPDS) (Radloff, 1977). EPDS was developed in 1987 as a screening tool of depression and it consists of 10 questions. The internal consistency of the EPDS is 0.83 (Bunevicius & Kusminskas, 2009). In 2004, Teissedre & Chabrol used EPDS in their study to detect the postpartum depression on 859 mothers.

Moreover, Beck Depression Inventory (BDI) is used to measure the postpartum depression. It is self-report rating that consists of 21 items. The internal consistency of BDI is 0.86 (American Psychological Association, n.d.). Vieira, *et al.*, (2008) used BDI to measure the postpartum depression on 772 women in the postpartum. Another tool that is used to measure the postpartum depression is General Health Questionnaire (GHQ). It consists of 12 questions. The validity of the GHQ is 0.82 and the reliability is 0.76 (Del Pilar Sánchez-López & Dresch, 2008). Another tool that is used to measure the depression in women after delivery is the Center for Epidemiological Studies Depression (CES-D) (Radloff, 1977). It is a self-report scale that

consists of 20 items. The Cronbach's alpha of the CES-D is 0.87 (Jiang, 2019).

## 6. RECOMMENDATIONS TO NURSING RESEARCH AND NURSING PRACTICE

The concept of “postpartum depression detection” contributes to nursing education, practice, and research. In clinical practice, defining the concept will help nurses to identify women with postpartum depression and enhance their emotional and psychological wellbeing. Moreover, this concept is essential in nursing education to make sure that nursing students have a comprehensive understanding of the concept. Students will be able to bridge the gap between theory and practice. Also, it will prepare them to take care of women who experience postpartum depression. Further research studies should be done on developing and implementing new models for identifying postpartum depression among women.

## 7. DISCUSSION

The findings of this article signify the importance of clarifying the concept of postpartum depression detection. The analysis ruled out four attributes of postpartum depression detection: time, risk factors, symptoms, and outcome.

Three antecedents were presented: knowledge, screening and care. Consequences included access to mental health care and treatment. The model, contrary and borderline cases provided relevant examples to clarify the concept of postpartum depression detection as it connected to the identified attributes, antecedents and consequences. Nurses are in apposition to detect postpartum depression among women. They need to consider this concept in their practice when providing nursing care to women.

## 8. CONCLUSION

The purpose of this paper was to understand the concept of postpartum depression detection and its significance in achieving the best clinical outcomes. The analysis recognized how the concept of postpartum depression detection was discovered from the available literatures. The definition of postpartum depression detection provided an understanding of what postpartum depression detection represents. Antecedents, attributes and consequences have provided additional understanding of the concept. This analysis will help in discovering the suitable methods for detecting the postpartum depression to achieve high quality care for mothers and infants.

## REFERENCES

- Abdollahpour, S., Bolbolhaghghi, N., & Khosravi, A. (2019). Effect of the Sacred Hour on Postnatal Depression in Traumatic Childbirth: a Randomized Controlled Trial. *Journal of Caring Sciences*, 8(2), 69–74. <https://doi.org/10.15171/jcs.2019.010>

- American Psychiatric Association. (n.d.). *What is depression?* <https://www.psychiatry.org/patients-families/depression/what-is-depression>
- American Psychological Association. (n.d.). *Beck depression inventory (BDI)*. <https://www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/beck-depression>
- Beck, C. (1996). Postpartum depressed mothers' experiences interacting with their children. *Nursing Research*, 45(2): 98 - 104.
- Biology online. (n.d.). *Detection*. <https://www.biologyonline.com/dictionary/detection#:~:text=Act%20of%20detecting%2C%20discovery%2C%20the,what%20tends%20to%20elude%20observation>
- Bunevicius, L., & Kusminskas, R. (2009). P02-206 validity of the Edinburgh postnatal depression scale. *European Psychiatry*, 24(1). [https://doi.org/10.1016/S0924-9338\(09\)71129-0](https://doi.org/10.1016/S0924-9338(09)71129-0)
- Castle, J. (2008). Early detection of postpartum depression: Screening in the first two to three days. *The Journal of Lancaster General Hospital*, 3(4). [http://jlg.h.org/JLGH/media/Journal-LGH-Media-Library/Past%20Issues/Volume%203%20-%20Issue%204/V3n4\\_Castle.pdf](http://jlg.h.org/JLGH/media/Journal-LGH-Media-Library/Past%20Issues/Volume%203%20-%20Issue%204/V3n4_Castle.pdf)
- Del Pilar Sánchez-López, M., & Dresch, V. (2008). *The 12-item general health questionnaire (GHQ-12): Reliability, external validity and factor structure in the Spanish population*. *Psicothema*. <http://www.psicothema.es/pdf/3564.pdf>
- Depressão, R. A., Mulheres, P. E. M., Moll, M. F., Matos, A., Rodrigues, T. D. A., Martins, S., Pires, C., & Alves, N. (2019). Tracking postpartum depression in young women. *Journal of Nursing*, 13(5), 1338–1345. <https://doi.org/10.5205/1981-8963-V13I5A239181P1338-1344-2019>
- Farlex Partner Medical Dictionary. (2012). *Detection*. Retrieved December 6 2020 from <https://medical-dictionary.thefreedictionary.com/detection>
- Farlex Partner Medical Dictionary. (2012). *Postpartum*. <https://medical-dictionary.thefreedictionary.com/postpartum>
- Gjerdingen, D. K., & Yawn, B. P. (2007). Postpartum depression screening: Importance, methods, barriers, and recommendations for practice. *The Journal of the American Board of Family Medicine*, 20(3), 280-288. <https://doi.org/10.3122/jabfm.2007.03.060171>
- Hetherington, E., McDonald, S., Williamson, T., Patten, S. B., & Tough, S. C. (2018). Social support and maternal mental health at 4 months and 1 year postpartum: Analysis from the All Our Families cohort. *Journal of Epidemiology and Community Health*, 72(10), 933–939. <https://doi.org/10.1136/jech-2017-210274>
- Jiang, L., Wang, Y., Zhang, Y., Li, R., Wu, H., Li, C., ... & Tao, Q. (2019). The reliability and validity of The Center for Epidemiologic Studies Depression Scale (CES-D) for Chinese university students. *Frontiers in Psychiatry*, 10, 315. <https://doi.org/doi:10.3389/fpsy.2019.00315>
- Lancet, T. (2016). Screening for perinatal depression: A missed opportunity. *The Lancet*, 387(10018), 505. [https://doi.org/10.1016/S0140-6736\(16\)00265-8](https://doi.org/10.1016/S0140-6736(16)00265-8)
- Liberto, T. L. (2012). Screening for depression and help-seeking in postpartum women during well-baby pediatric visits: an integrated review. *Journal of Pediatric Health Care*, 26(2), 109-117. <https://doi.org/10.1016/j.pedhc.2010.06.012>
- Mental Health Organization. (2019). *Postnatal depression*. <https://mentalhealth.org.nz/conditions/condition/postnatal-depression>
- Merriam-Webster. (n.d.). *Concept*. <https://www.merriam-webster.com/dictionary/concept>
- Merriam-Webster. (n.d.). *Postpartum*. <https://www.merriam-webster.com/dictionary/postpartum>
- Moraes, G. P. D. A., Lorenzo, L., Pontes, G. A. R., Montenegro, M. C., & Cantilino, A. (2017). Screening and diagnosing postpartum depression: When and how? *Trends in Psychiatry and Psychotherapy*, 39(1), 54-61. <https://doi.org/10.1590/2237-6089-2016-0034>
- Mughal, S., Azhar, Y., Siddiqui, W., & May, K. (2021). *Postpartum depression (nursing)*. <https://www.ncbi.nlm.nih.gov/books/NBK568673/>
- Munoz, C., Agruss, J., Haeger, A., & Sivertsen, L. (2006). Postpartum depression: Detection and treatment in the primary care setting. *The Journal for Nurse Practitioners*, 2(4), 247-253. <https://www.sciencedirect.com/science/article/abs/pii/S1555415506001565>
- Patel, M., Bailey, R. K., Jabeen, S., Ali, S., Barker, N. C., & Osiezagha, K. (2012). Postpartum depression: a review. *Journal of Health Care for the Poor and Underserved*, 23(2), 534-542. <https://doi.org/10.1353/hpu.2012.0037>
- Radloff, L.S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3): 385-401. <https://doi.org/10.1177/014662167700100306>
- Sit, D. K., & Wisner, K. L. (2005). Decision making for postpartum depression treatment. *Psychiatric Annals*, 35(7), 577-585. <https://doi.org/10.1002/da.20844>
- Sit, D. K., & Wisner, K. L. (2009). The identification of postpartum depression. *Clinical Obstetrics and Gynecology*, 52(3), 456. <https://doi.org/10.1097/GRF.0b013e3181b5a57c>
- Teissedre, F., & Chabrol, H. (2004). A study of the Edinburgh postnatal depression scale (EPDS) on 859 mothers: Detection of mothers at risk for

- postpartum depression. *L'encephale*, 30(4), 376-381. <https://pubmed.ncbi.nlm.nih.gov/15538313/>
- Vieira Da Silva Magalhães, P., Tavares Pinheiro, R., Lessa Horta, B., Amaral Tavares Pinheiro, K., & Azevedo Da Silva, R. (2008). Validity of the Beck Depression Inventory in the postpartum period. [https://www.researchgate.net/publication/232068659\\_VValidity\\_of\\_the\\_Beck\\_Depression\\_Inventory\\_in\\_the\\_postpartum\\_period](https://www.researchgate.net/publication/232068659_VValidity_of_the_Beck_Depression_Inventory_in_the_postpartum_period)
  - Viveiros, C. J., & Darling, E. K. (2019). Perceptions of barriers to accessing perinatal mental health care in midwifery: A scoping review. *Midwifery*, 70, 106-118. <https://pubmed.ncbi.nlm.nih.gov/30611114/>
  - Walker, L. O., & Avant, K. C. (2011). *Strategies for theory construction in nursing*. Pearson. <https://www.pearson.com/uk/educators/higher-education-educators.html>
  - Wang, S., Pathak, J., & Zhang, Y. (2019). Using electronic health records and machine learning to predict postpartum depression. *Studies in Health Technology and Informatics*, 264(1), 888–892. <https://doi.org/10.3233/SHTI190351>
  - Williams, J. B., Gibbon, M., First, M. B., Spitzer, R. L., Davies, M., Borus, J., ... & Wittchen, H. U. (1992). The structured clinical interview for DSM-III-R (SCID): II. Multisite test-retest reliability. <https://pubmed.ncbi.nlm.nih.gov/1637253/>