

## RESEARCH ARTICLE

# A Systematic Literature Review of Nursing Interventions for Postpartum Depression and their Outcomes

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## Abstract

**Purpose:** This study was conducted to bring together studies on the common nursing interventions for postpartum depression (PPD) and their outcomes. It aims to provide interpretation of relevant findings to help further enhance the nursing care of patients with postpartum depression.

**Design and Methods:** A systematic literature review (SLR) approach was utilized to synthesize studies related to the management of postpartum depression and its outcomes. One hundred five studies (105) were initially retrieved from three online databases. Eventually, fifteen studies were included in this review after the screening process on quality and risk of bias assessments. Codes were identified from the included studies and were clustered into themes. A thematic map was formulated to visualize the interconnections of the nursing interventions for postpartum depression and its outcomes.

**Findings:** Nurses caring for patients with postpartum depression usually practice PPD education, perinatal assessment, PPD counseling, nurse-delivered psychotherapy, providing social support, drug administration, complementary and alternative therapy combined with conventional management, and patient referral. These nursing practices for postpartum depression yielded the following outcomes: (1) symptom alleviation, (2) empowerment, (3) positive feedback, and (4) negative outcomes.

**Conclusions and Recommendations:** There is a range of nursing interventions for postpartum depression. This review highlights the significant roles of PPD education and nursing assessment and emphasizes these interventions to be practiced not only after childbirth but also during the prenatal period to identify at-risk patients and provide early intervention. This review also emphasizes the need for more coordinated care and a multidisciplinary approach, including patient referral, to achieve better outcomes in the care of postpartum depression patients. This relates to the acknowledgment of the various factors contributing to the development of postpartum depression and its lack of clear etiology.

**Keywords:** *Postpartum depression, postpartum depression intervention, postpartum depression management, postpartum depression outcome, multidisciplinary approach*

## Introduction

Maternal health is one of the most important public health goals, along with infant and child health. The World Health Organization (2020) defined maternal health as “the health of women during pregnancy, childbirth, and the postnatal period.”

The postnatal period is a critical phase in the lives of mothers and infants, yet it is often overlooked in providing quality care for them (World Health Organization, 2013). Postnatal care must be

given importance to assist the newborn and the recovery of the mother. In addition, postnatal problems could be identified by providing quality care following childbirth that would necessitate additional care.

Mothers may experience wide-ranging postnatal problems, which include postpartum depression. Postpartum depression is the term used for depression that occurs immediately after

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birth and extends to approximately six weeks. In the *Diagnostic and Statistical Manual of Mental Disorders*, (DSM-5) (American Psychiatric Association, 2013, p.186), postpartum depression is described as not a unique diagnostic category and is recognized as a “major depressive disorder with peripartum onset.” In the previous editions of this authoritative handbook in diagnosing mental disorders, the condition’s specifier was still “with postpartum onset.” Moreover, Bauman et al. (2020) of the Centers for Disease Control and Prevention revealed that one in eight women experience postpartum depression symptoms. However, the statistics reported that the number of women affected by postpartum depression might vary depending on their age and race or ethnicity.

Women with postpartum depression demonstrate more intense and more prolonged effects than baby blues. Postpartum blues involve changes in the mother's mood, which are commonly mild, transient, and self-limited. In comparison, postpartum depression must meet the criteria for depressive episodes with mood disturbances persisting for two weeks. The criteria for this condition set by the DSM-5 include depressed mood, anhedonia or diminished pleasure in activities, changes in weight and appetite, insomnia or sleep disturbances, retardation or psychomotor agitation, fatigue or loss of energy, feelings of worthlessness or guilt, indecisiveness, and recurrent thoughts of death or suicidal ideation. Moreover, postpartum depression involves episodes of extreme worry, sadness, and tiredness that affect activities of daily living after giving birth (Centers for Disease Control and Prevention, 2020). These symptoms may last for several months or longer if left unattended. Since these manifestations are varied from one person to another, there is no standalone etiology. Despite the uncertainty of its causes, personal history, family history, and pregnancy history of depression are seen to contribute to the onset of postpartum depression (Center for Addiction and Mental Health, 2022).

Postpartum depression requires an interdisciplinary approach as it affects the mother's mental health and the biological, psychological, and sociological facets. Recent studies have focused on different nursing interventions for postpartum depression. These nursing interventions for postpartum depression vary in forms such as assessment, health education, counseling, psychotherapy, and referral. Several existing studies claim that nursing assessments are valuable nursing interventions that include utilizing screening instruments and obtaining psychiatric and extensive maternal history to identify women at risk for postpartum depression. Although routine screenings are being practiced, there are still numerous mothers who remain unscreened and undiagnosed (Elshatarat et al., 2018; Guintivano et al., 2018; Skoog et al., 2017; Zielinski, 2021).

Likewise, providing factual information geared toward teaching individuals to achieve better health is a common role of nurses. According to Bastable (2019), nursing is set apart from other health care professionals as patient education is considered a major component of standard care delivered by nurses (p. 9). Providing health education to postpartum women is seen as an integral nursing intervention where nurses must be aware of its symptoms (Gillis et al., 2019; Lile-Brown & Joslyn, 2019). Furthermore, McCarter-Spaulling & Shea (2015) suggested that further study is needed to determine the most appropriate time and method for administering patient education. In line with this, several studies reported that patient education given along with screening might be beneficial in preventing postpartum depression (Lile-Brown & Joslyn, 2019; Mukherjee et al., 2017; Wilusz et al., 2013).

Another nursing intervention is counseling, which was found helpful in managing postpartum depression along with other nursing interventions (Tammentie et al., 2013; Glasser, 2016; Siewert et al., 2015; and Dennis, 2014). Other interventions for postpartum depression include psychotherapies in the forms of cognitive-behavioral approach and humanistic approach. These psychotherapeutic interventions are considered pivotal primary nursing interventions in managing postpartum depression (Guille et al., 2013; Ahmadpanah et al., 2018; van Lieshout et al., 2019; Goodman et al., 2013; Pessagno & Hunker, 2013). In addition, the Horatio European Psychiatric Nurses (2012) emphasized that psychiatric mental health nurses would be certified psychotherapists if they have appropriate academic and professional education and have undergone psychotherapy training programs. It must be noted that there are qualifications that must be fulfilled for a nurse to be qualified to facilitate this kind of nursing intervention.

Moreover, proper referrals done by registered nurses, thereby facilitating coordination and teamwork with other health care providers, should be involved in the delivery of intervention and management of postpartum depression (Burke, 2020). As this condition necessitates a multidisciplinary approach, the referral is also a nursing intervention seen to be beneficial in managing postpartum depression by allowing other health care professionals to intervene (Bennington et al., 2018; Benedict et al., 2019; Swenson et al., 2017; and Booth et al., 2018). Furthermore, Coffman and Scott (2019) noted that barriers at the individual, local, and macrosystem levels should be eliminated for a referral to be an effective intervention.

Although there are numerous studies conducted focusing on the prevalence, risks, and management of postpartum depression, there is no known synthesized research focusing on the nursing interventions for postpartum depression that could provide a synthesized view of nursing practices in this

area. Specifically, this systematic literature review identified and described the nursing interventions for postpartum depression and their outcomes and focused on the nursing discipline, and did not delve into other mental disorders beyond the context of the research topic. These nursing practices for postpartum depression may be independent, dependent, or collaborative. Furthermore, currently available studies included in the review are of fair to good quality, according to the parameters set by the utilized risk of bias assessment tools, to avoid biases and establish a more transparent synthesis of evidence.

This study sought to determine postpartum depression nursing interventions and their outcomes. Specifically, this research aimed to answer the following research questions:

1. What are the nursing practices on postpartum depression that are currently available in high-quality research?
2. What are the outcomes of nursing management on postpartum depression that are currently available in high-quality research?

## Methods

This study employed the systematic literature review (SLR) approach outlined by O'Brien and McGuckin (2020). This approach has the key areas of organizing, planning, keeping thorough records, using bibliographic software, communicating with individuals who studied the field, and, most crucially, backing up the resources. The systematic literature review also aims to integrate the findings of multiple studies to evaluate the strength of the study results and inform practice (Whittemore & Knaff, 2005).

### Eligibility Criteria

This systematic literature review's inclusion criteria were studies involving pregnant or postpartum women subjects of any age, studies facilitating nurse-delivered management for postpartum depression, and primary research published in English with full-text articles with abstracts available. Studies that do not relate to postpartum depression, no full-texts available, published in non-English format, and secondary studies were excluded from the review.

### Search Strategy

The online databases EBSCOhost, Proquest, and Scopus were searched using the keywords: (postpartum depression OR postpartum depression OR postnatal depression OR post-natal depression) AND (nurse management OR nurse intervention OR nurse care) AND (effect OR outcome OR quality).

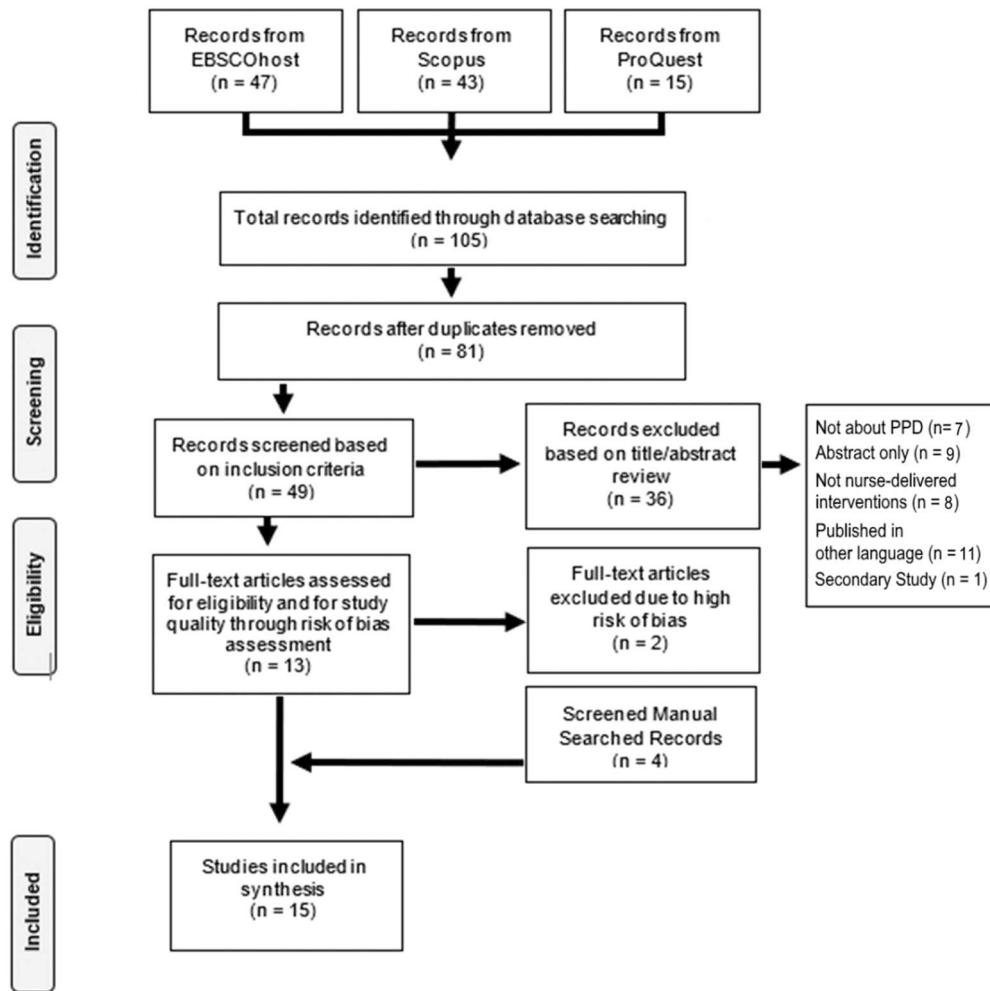
### Selection Process

The selection of studies included in this review is presented through the PRISMA guideline (2009) (see Figure 1). Initially, one hundred and five (105) studies were retrieved. Duplications of the studies were assessed, which left the researchers with a total of eighty-one (81) studies. The remaining 81 studies were later screened based on the inclusion criteria yielding a total of forty-nine (49) studies. Thirty-six (36) records were excluded based on title/abstract review, resulting in a total of thirteen (13) studies. Two (2) articles were excluded due to the high risk of bias. Manual hand-searching was utilized to retrieve supplemental literature beyond databases and keywords. This was done by directly contacting the authors of the included studies and asking for any recommendations that the researchers could use to supplement their research. Moreover, checking of the included studies' reference list was also done to probe if there are existing studies that could still be used. Four (4) studies were obtained from this manual search process. A total of fifteen (15) studies were then included in this systematic literature review. Six (6) studies utilized a quasi-experimental research design, three (3) studies used a randomized control trial research design, and one (1) adapted a non-randomized control trial research design. Three (3) records utilized a mixed-method research design. One (1) study employed an observational research design. Moreover, (1) one qualitative case study was included in the systematic review of the literature.

### Risk of Bias Assessment

Different study appraisal tools were utilized, such as the Cochrane methodology for the risk of systematic bias (RoB 2.0), the Critical Appraisal Skills Programme (CASP) assessment tool, and the Mixed Methods Appraisal Tool (MMAT) checklist to critically appraise and assess the quality of the included studies based on their characteristics. Cochrane's RoB 2.0 was used to appraise quantitative studies, while the CASP was utilized to assess bias in qualitative records. Additionally, the MMAT checklist was used to evaluate mixed-method studies. The appraisal tools for risk of bias were conducted by three reviewers from the research team. Each study was assessed by two reviewers. There were no disagreements in appraising the eligible studies that require another reviewer from the team to further assess the included papers. Initial notes were taken from fair to good quality studies where codes were identified and clustered into themes. A model was then formulated to visualize the relationships between the nursing interventions for postpartum depression and its outcomes.

Figure 1. PRISMA Flow Diagram



## Findings

Out of the 15 included studies, eleven (11) emphasized postpartum depression health education as the primary and supplemental nursing intervention (Gunes & Cavusoglu, 2019; Horowitz et al., 2013; Jin et al., 2020; Jitmanowan et al., 2018; Liu & Yang, 2021; McCarter-Spaulding & Shea, 2015; Siewert et al., 2015; Tan, 2012; Tezel & Gozum, 2005; Zhang et al., 2020; Zhuang et al., 2020). This indicates that health education is the most commonly used management in addressing postpartum depression and its symptoms. Further, perinatal assessment, which includes physical status assessment, psychological status assessment, attitude assessment, close monitoring, screening, prenatal to postnatal examination, and re-evaluation and follow-ups, were reported in eleven (11) studies (Gunes & Cavusoglu, 2019; Horowitz et al., 2013; Jin et al., 2020; Jitmanowan et al., 2018; McCarter-Spaulding & Shea, 2015; Pessagno & Hunker, 2012; Segre et al., 2013; Tan, 2012; Tezel & Gozum, 2005; Zhang et al., 2020; Zhuang et al., 2020).

On the other hand, postpartum depression counseling was administered by advanced psychiatric nurses and was conducted according to four (4) studies (Jitmanowan et al., 2018; Segre et al., 2013; Siewert et al., 2015; Tan, 2012). Nurse-delivered psychotherapy was also reported in seven (7) studies involving group therapy, music therapy, interpersonal psychotherapy, emotion-focused therapy, cognitive behavioral therapy, and other psychological nursing practice (Dennis et al., 2020; Jitmanowan et al., 2018; Liu & Yang, 2021; Pessagno & Hunker, 2012; Tan, 2012; Zhou et al., 2020; Zhuang et al., 2020). Moreover, the provision of social support was utilized in three (3) studies done through a mind-body intervention program, assistance in communication, and assistance to postpartum mothers (Jin et al., 2020; Jitmanowan et al., 2018; Tan, 2012). Furthermore, drug administration was described in two (2) studies (Tan, 2012; Zhang et al., 2020). Likewise, complementary and alternative therapy combined with conventional management was utilized in one (1) study (Zhou et al., 2020). Lastly, referrals due to negative outcomes were

reported by six (6) studies (McCarter-Spaulling & Shea, 2015; Pessagno & Hunker, 2012; Segre et al., 2013; Tan, 2012; Tezel & Gozum, 2005).

These nursing practices to address postpartum depression resulted in several outcomes. Alleviation of postpartum depression symptoms was reported in four (4) studies that include decreased anxiety, decreased fatigue, better sleep quality, and maternal mind and body regulation (Gunes & Cavusoglu, 2019; Segre et al., 2013; Tan, 2012). In addition, empowerment was found to be a significant outcome in seven (7) studies with profound codes that include seeking help, a positive attitude, maternal awareness, and a sense of security (Horowitz

et al., 2013; Jin et al., 2020; Jitmanowan et al., 2018; McCarter-Spaulling & Shea, 2015; Pessagno & Hunker, 2012; Siewart et al., 2015; Tan, 2012). Positive feedback was found in nine (9) studies comprising codes such as patient satisfaction, family satisfaction, and recognition of the importance of nursing intervention (Dennis et al., 2020; Gunes & Cavusoglu, 2019; Horowitz et al., 2013; Jin et al., 2020; Liu & Yang, 2021; Siewart et al., 2015; Tan, 2012; Tezel & Gozum, 2005; Zhuang et al., 2020). In contrast to these positive outcomes, three (3) studies reported negative outcomes such as symptom worsening, the risk for self-harm, and perceived low salience (Jin et al., 2020; McCarter-Spaulling & Shea, 2015; Segre et al., 2013).

**Table 1.** General Descriptions of Included Studies

Author/s, Year, and Title	Research Design	Nursing Intervention	Outcomes of Nursing Intervention	Risk of Bias
McCarter-Spaulling and Shea (2015) Effectiveness of Postpartum Education in the Reducing Symptoms of Postpartum Depression	Quasi-experimental Design	Postpartum Depression Education Perinatal Assessment Referral due to Negative Outcomes	Empowerment Negative Outcomes	Low risk (Good)
Jitmanowan et al. (2018) Effectiveness of using the Centering Teen Pregnancy Program on Postpartum Depression among Adolescent Mothers: A Posttest Only Quasi-Experimental Design using a Comparison Group	Posttest only Quasi-experimental Design	Postpartum Depression Education Perinatal Assessment Empathic Counseling Nurse-Delivered Psychotherapy Providing Social Support	Empowerment	Low risk (Good)
Horowitz et al. (2013) Nurse Home Visits Improve Maternal/Infant Interaction and Decrease Severity of Postpartum Depression	Mixed-Method Randomized Clinical Trial (RCT) with three phases	Postpartum Depression Education Perinatal Assessment Referral due to Negative Outcomes	Empowerment Positive Feedback	Low risk (Good)
Zhang et al. (2020) Analysis of the effect of postpartum rehabilitation nursing on the management of postpartum depression.	Randomized Control Trial	Postpartum Depression Education Perinatal Assessment Nurse-Delivered Psychotherapy Drug Administration	Positive Feedback	Low Risk (Good)
Zhou et al. (2020) Effect of TCM Nursing Combined with Relaxation Training and Postpartum Recovery Training on Postpartum Depression of Primiparas	Non-Randomized Control Group	Nurse-Delivered Psychotherapy Complementary and Alternative Therapy Combined with Conventional Management	Postpartum Depression Symptom Alleviation	Some Concerns (Fair)
Segre et al. (2013) Emotional Distress in Mothers of Preterm Hospitalized Infants: A feasibility Trial of Nurse-delivered Treatment	Single group pretest, posttest	Perinatal Assessment Empathic Counseling Referral due to Negative Outcomes	Postpartum Depression Symptom Alleviation Negative Outcomes	Low Risk (Good)

Dennis et al. (2020) Telephone-based Nurse-delivered Interpersonal Psychotherapy for Postpartum Depression: Nationwide Randomised Controlled Trial	Randomized Control Trial	Nurse-Delivered Psychotherapy	Positive Feedback	Some Concerns (Fair)
Jin et al. (2020) Nursing intervention for Preventing Postpartum Depressive Symptoms among Chinese Women in Japan	Prospective, before-and-after study longitudinal mixed-method design	Postpartum Depression Education Perinatal Assessment Providing Social Support	Empowerment Positive Feedback Negative Outcomes	Some Concerns (Fair)
Zhuang et al. (2020) Home-based Nursing for Improvement of Quality of Life and Depression in Patients with Postpartum Depression	Retrospective Study	Postpartum Depression Education  Perinatal Assessment	Positive Feedback	Low Risk (Good)
Liu and Yang (2021) Effects of a Psychological Nursing Intervention on Prevention of Anxiety and Depression in the Postpartum Period: a Randomized Controlled Trial	Randomized Control Trial	Postpartum Depression Education  Nurse-Delivered Psychotherapy	Positive Feedback	Low Risk (Good)
Tezel and Gözüüm (2005) Comparison of Effects of Nursing Care to Problem Solving Training on Levels of Depressive Symptoms in Post Partum Women	Pretest-Posttest Mutual Controlled Semi-Experimental Study	Postpartum Depression Education Perinatal Assessment Referral due to Negative Outcomes	Positive Feedback	Low Risk (Good)
Pessagno and Hunker (2012) Using Short-Term Group Psychotherapy as an Evidence-Based Intervention for First-Time Mothers at Risk for Postpartum Depression	Experimental Research	Perinatal Assessment Nurse-Delivered Psychotherapy Referral due to Negative Outcomes	Empowerment	Some Concerns (Fair)
Tan (2012) The Effects of Mind-Body Intervention Program in Alleviating Post-partum Depression Syndrome	Embedded Design: Embedded Experimental Model	Postpartum Depression Education Perinatal Assessment Empathic Counseling Nurse-Delivered Psychotherapy Providing Social Support Drug Administration Referral due to Negative Outcomes	Postpartum Depression Symptom Alleviation  Empowerment  Positive Feedback	Low Risk (Good)
Gunes and Cavusoglu (2019) Effects of a Home Follow-up Program in Turkey for Urban Mothers of Premature Babies	Semi-experimental study with a pretest-posttest control group design	Postpartum Depression Education Perinatal Assessment	Postpartum Depression Symptom Alleviation  Positive Feedback	Low Risk (Good)
Siewert et al. (2015) Implementation of an Innovative Nurse-Delivered Depression Intervention for Mothers of NICU Infants	Case Study	Postpartum Depression Education Empathic Counseling	Empowerment  Positive Feedback	Low Risk (Good)

## Discussion

Postpartum depression, which has varying effects on postpartum mothers, also requires varying interventions that depend on the factors that the affected individual possesses. Various nursing interventions, which may be independent, dependent, and collaborative, aim to address postpartum depression. This systematic literature review is intended to be inclusive of nurse-delivered interventions for postpartum depression to provide an overview of the assessments, education, treatment, and other management being practiced by nurses. The review revealed that different nursing interventions may be facilitated specifically for the needs of the postpartum client.

### Nursing Interventions for Postpartum Depression

The identified nursing practices in this review of literature include postpartum depression education, perinatal assessment, empathic counseling, psychological nursing interventions, drug administration, complementary and alternative therapy combined with conventional management, and referral to other health care providers.

Most of the nursing interventions practiced, as reported in the included studies, are postpartum education and assessment, which are consistent with the standard roles of nurses in the clinical setting. Postpartum education involves health teaching on rehabilitation diet, exercise, and the nature of the condition (Gunes & Cavusoglu, 2019; Horowitz et al., 2013; Jin et al., 2020; Jitmanowan et al., 2018; Liu & Yang, 2021; Tan, 2012; Tezel & Gozum, 2005; Zhang et al., 2020; Zhuang et al., 2020). Education can also be given through the provision of learning materials in the form of handbooks and brochures (Jitmanowan et al., 2018; McCarter-Spaulding & Shea, 2015; Siewert et al., 2015; Zhang et al., 2020). Likewise, perinatal assessments were also extensively practiced in the included studies. It involves all assessment measures, including the client's physical, emotional, psychological, and social well-being relating to postpartum depression. As part of nursing assessment, the utilization of standardized screening tests to help identify women who are at risk and suffering from postpartum depression was also highlighted in several studies (Gunes & Cavusoglu, 2019; Horowitz et al., 2013; Jin et al., 2020; McCarter-Spaulding & Shea, 2015; Pessagno & Hunker, 2012; Segre et al., 2013; Tan, 2012). These nursing interventions of conducting complete and comprehensive screening and assessing the client have proven benefits in improving postpartum depression (American College of Obstetricians and Gynecologists, 2015).

Psychological nursing interventions were also found in these included studies. For example, Pessagno and Hunker (2012)

and Jitmanowan et al. (2018) facilitated group therapy in their studies, while Liu and Yang (2021) and Tan (2012) conducted cognitive-behavioral therapy to alleviate the symptoms of postpartum depression. Moreover, Zhang et al. (2020) reported that other psychological nursing interventions might be useful in alleviating the symptoms of postpartum depression, and these include behavioral activation and mindfulness-cognitive therapy. With these identified nursing practices, it can be inferred that there are numerous nurse-delivered psychotherapy options to manage postpartum depression. However, it must be noted that the facilitation of interventions such as nurse-delivered psychotherapy requires special training. This special training includes obtaining a certified nurse psychotherapist certificate or a two-year master's degree program in psychiatric mental health nursing with integrated psychotherapy supervised clinical rotations (Zimmer-Abel, 2019).

Furthermore, Zhou et al. (2020) exemplified that there are also cultural-based nursing interventions for postpartum depression, such as traditional Chinese medicine being utilized to supplement conventional management. It is worth noting that there are nursing interventions that combine varying approaches in the form of programs to broaden the scope of the nursing practice in alleviating postpartum depression. Consistently, Munro and Milne (2020) emphasized that there is no single etiology of depression, which may be genetic, biological, environmental, and psychological factors, so varying management and stepped-care approaches are recommended. This indicates that it is vital to practice a multidisciplinary approach to addressing the clinical symptoms of postpartum depression.

These nursing practices on postpartum depression have possible outcomes of symptom alleviation, empowerment, positive feedback, and negative outcomes (see Figure 2). Most of the studies noted positive outcomes of alleviating symptoms, empowering the postpartum clients, and receiving positive feedback from the intervention.

### Outcomes of Postpartum Depression Nursing Interventions

#### *Symptom Alleviation*

Most of the interventions carried out in managing postpartum depression have a goal of alleviating the signs and symptoms of depression exhibited by postpartum clients. These mothers presented decreased anxiety, decreased fatigue, better sleep quality, and maternal mind and body regulation after the nursing interventions.

In the studies conducted by Gunes and Cavusoglu (2019) and Segre et al. (2013), fewer symptoms of anxiety were demonstrated by the study participants as interpreted by the EPDS scores, attitude and demonstration, verbalizations, and

further assessment and evaluation. These outcomes were mainly exhibited after the implementation of health education and guidance from the nurse. On the other hand, the study conducted by Zhou et al. (2020) has indicated that the participants who have undergone Traditional Chinese Medicine (TCM) combined with relaxation training and postpartum recovery training had a significant improvement in the participant's sleep quality, which may involve decreasing stress, anxiety, and fatigue. Moreover, in the study of Tan (2012), a participant verbalized that the subjected mind-body intervention has helped her prevent the worsening of current postpartum depression symptoms along with improved mood and increased self-confidence. It is implied that nursing interventions for postpartum depression could alleviate its symptoms in some ways. It also showed that postpartum client responds to nursing approaches differently.

### **Empowerment**

Postpartum women are often left not only with the physical trauma obtained due to childbirth but also the emotional turmoil brought about by various factors affecting the mother's mood disturbances. This disturbance is not only limited to hormonal imbalances, but other contributing factors like lack of social support, financial difficulties, isolation, violence, and many others. The literature review revealed that nursing interventions led postpartum mothers to seek help and have a positive attitude, maternal awareness, and a sense of security.

After implementing the nursing interventions for postpartum depression, many participants decided to seek help after realizing the degree of seriousness of their condition if not treated promptly and how this could adversely affect their children. Likewise, because of the implemented health teaching, the compliance of participants and even their family showed a positive attitude towards pregnancy and self-care management. Moreover, because of postpartum depression education, the outcomes from the studies of Tan (2012), Horowitz et al. (2013), Pessagno and Hunker (2012), and Jin et al. (2020) all came up with the result of maternal awareness regarding situations like how greatly their mood disorder could affect their developing child and their interpersonal relationships. The participants further understood that without the management, and if there is an abrupt stop in the regimen, their underlying condition, postpartum depression, could cause them to worsen their case; thus, their compliance was emphasized.

### **Positive Feedback**

Positive feedback is one of the significant outcomes of postpartum depression nursing interventions where the results displayed patient satisfaction, family satisfaction, and recognition of the importance of nursing intervention. Looking closely at the study conducted by Jin et al. (2020), the positive evaluation came from cognitive appraisals seen after the

administration of Nursing Intervention for Preventing Postpartum Depressive Symptoms (NIP). Meanwhile, in the study of Liu and Yang (2021), participants were reportedly very satisfied with the psychological nursing intervention implemented. Likewise, Zhuang et al. (2020) reported improved nursing satisfaction after implementing home-based nursing care. Also, Tezel and Gozum (2005) noted increased patient satisfaction with nursing care and problem-solving. In the study of Tan (2012), satisfaction was interpreted as one patient mentioning how grateful she is for the interventions implemented as they helped prevent the worsening of her condition.

Moreover, positive feedback also included recognition of the importance of nursing interventions on postpartum depression. The studies of Horowitz et al. (2013) and Dennis et al. (2020) both noted that their participants perceived how important their implemented nursing interventions are when they plan to have another baby. In the study of Siewart et al. (2015), the participant verbalized how the interventions were helpful for her who has a NICU infant. Likewise, recognition of the importance of nursing interventions was evidently found in the client's response in the study of Tan (2012), where a mother verbalized how vital having a support system is to express their feelings.

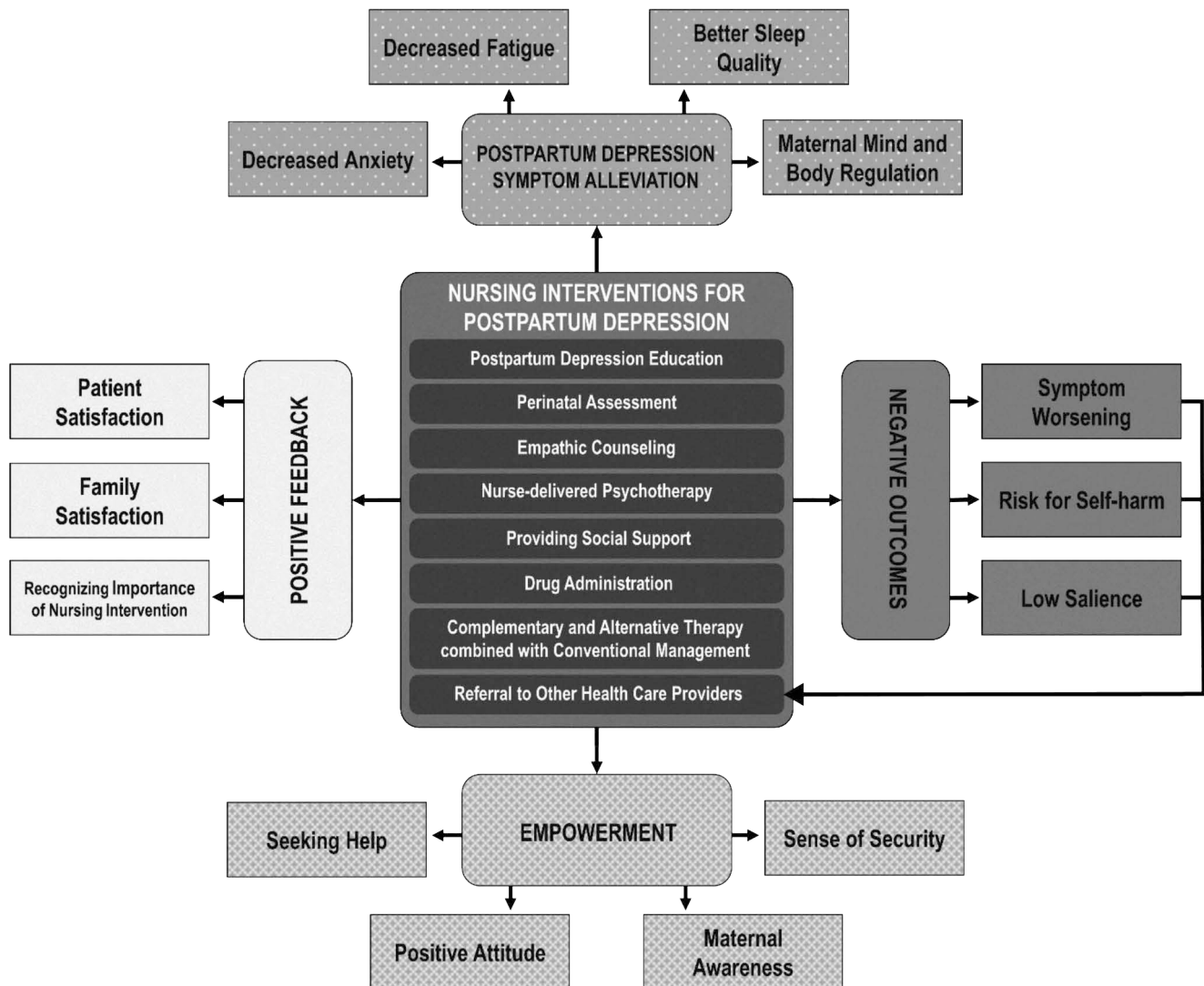
### **Negative Outcomes**

Although most of the nursing interventions displayed positive outcomes of symptom alleviation, empowerment, and positive feedback, it is worth noting that these interventions could yield negative outcomes of symptom worsening, the risk for self-harm, and low salience towards the interventions. These negative outcomes revealed in the review imply that there are other factors contributing to postpartum depression which nursing intervention alone cannot address effectively.

In the study conducted by Segre et al. (2013), all of the participants who received the intervention except one gave positive feedback. One reported that her mood had clinically deteriorated after the intervention. The researchers suggest that the single report of symptom worsening after listening visits intervention may be possible because the management can only potentially address mild-to-moderate symptoms of postpartum depression, thus requiring the mother for supplementary services from a mental health specialist. Similar to this, the study by McCarter-Spaulding and Shea (2015) stated that upon post-intervention EPDS screening, there are women who have been classified as at risk for self-harm. Their intervention of discharge education did not have a significant influence on alleviating symptoms of postpartum depression, which may be caused by the time the discharge education was implemented or the vague distinction between their intervention and the usual treatment. Lastly, the study by Jin et al. (2020) noted that some participants chose not to participate in the intervention even if they met the



Figure 2. Thematic Map of Postpartum Depression Nursing intervention and Its Outcomes



criteria because they did not perceive it as necessary since most of them reasoned out that it would consume a considerable amount of time and it would be difficult for them to remain in contact to undergo the nursing intervention.

Consequently, the participants who reported symptom worsening and were identified as at-risk for self-harm were subjected to further assessment and referred to other health care providers for better mental health care. This highlights patient referral as an essential nursing practice to overcome possible post-intervention challenges. Consistently, it should be noted that patient referral is an integral part of quality, comprehensive patient care (Anyanwu, Abedi, & Onohwakpor 2015).

### Conclusions

In this review, common nursing interventions for postpartum depression and their outcomes were identified and described based on the synthesis of existing literature. This review highlighted the important role of postpartum nursing education as the most practiced nursing intervention for postpartum depression and contributed to positive outcomes. This finding underscores postpartum depression education as among the essential tools for nurses in caring for postpartum depression patients. It is also evident in the literature that nursing assessments are commonly practiced. However, its significant

role before childbirth should be emphasized to be able to identify at-risk mothers for postpartum depression.

Acknowledging that postpartum depression has no specific etiology and has a range of factors that contribute to its development, this review indicates the need to emphasize the practice of a multidisciplinary approach in managing postpartum depression and the practice of referral for proper care.

Ensuring the compliance of mothers to the nursing interventions is recommended as they play a major role in their postpartum care. Clinical nurses are also recommended to continuously attain higher competence in delivering care to postpartum depression mothers. These competencies could be achieved by attending continuing education on facilitating counseling and psychotherapies. Moreover, programs for postpartum depression are suggested to focus on assessments of mothers at risk of developing the condition aided by postpartum depression education.

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## Acknowledgment

The researchers would like to acknowledge our research professor and dean of the College of Nursing, Dr. Restituta C. Tan, and members of the technical review panel for providing the resources needed in the completion, supervision, and accommodation of concerns and clarification needed in this research.

To our family and significant loved ones, for their financial support and for being consistent inspirations to the researchers, and the Lord Almighty for providing strength and knowledge to the researchers.