SeAMK
SEINÄJOEN AMMATTIKORKEAKOULU
SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

George Essel & Boaz Maiyo

The impact and management of postpartum depression on mothers

Descriptive literature review

Thesis
Spring 2024
Degree Programme in Nursing

SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

Thesis abstract

Degree Programme: Degree Programme in Nursing

Specialisation: Bachelor of Nursing, Registered Nurse

Author: George Essel & Boaz Maiyo

Title of thesis: The impact and management of postpartum depression on mothers

Supervisor: Terhi Haapala & Paula Paloniemi

Year: 2024 Number of pages: 50 Number of appendices: 2

Postpartum depression is a mental disorder that has nothing to do with how much the mother loves the baby; instead, it is a natural phenomenon that occurs in most women after giving birth because of the changes in their lives brought about by the birthing experience, hormonal changes caused by childbirth, and the new responsibilities of having a baby. This thesis aims to address the effect and management of Postpartum depression among mothers. In doing so, the research questions were: (1) What are the effects of postpartum depression on mothers (2) How can postpartum depression be managed holistically? A qualitative research methodology was used to address the research questions; specifically, a literature review was done and an analysis of the selected literature that helped answer the research question was inductive content analysis. These involved assigning codes, developing subthemes, and forming main themes.

The results of the studies are shown in sub-themes, which answer the research questions. The results, therefore, indicate that the effects of postpartum depression are Mother-family relationships, coping and mood difficulties, and clinically diagnosed disorders. In managing postpartum depression, screening is seen as an essential phase upon which other interventions are administered. It involves diagnosing mothers with PPD through tools such as EPDS. Based on this study, three main interventions were identified: psychosocial and psychological intervention, which address emotional, social, and psychological well-being by using tools such as peer support, counselling, family support and coaching, and psychoeducation. Pharmacological intervention involves the use of medication, especially antidepressants such as Serotonin reuptake inhibitors (SSRIs) and Serotonin-norepinephrine reuptake inhibitors (SNRIs) to treat severe PPD, and lastly, other interventions such as electroconvulsive therapy, which involves the usage of electric current on the scalp and delivering fast-changing magnetic field pulses. This is used in severe cases of PPD. It must be noted that Psychosocial and psychological intervention is the most widely used in the treatment of PPD.

[1] Keywords: Postpartum depression, “Baby blues”, Postpartum psychosis, Prenatal depression, Maternal depression.

TABLE OF CONTENTS

Pictures, Figures and Tables

Terms and Abbreviations

APA	American Psychological Association
BDI	Beck Depression Inventory I & II
CBT	Cognitive Behavioural Therapy
EPDS	Edinburgh Postnatal Depression Scale
PDD	Postpartum depression.
PDSS	Postpartum Depression Screening Scale
PHQ-9	Patient Health Questionnaire-9
POCD	Postpartum obsessive-compulsive disorder
PTSD	Postpartum post-traumatic stress disorder
SNRIs	Serotonin-Norepinephrine Reuptake Inhibitors
SSRIs	Selected Serotonin Reuptake Inhibitors

1 INTRODUCTION

Postpartum depression is a depressive state that occurs within the first six weeks following childbirth (Hertzberg,2022). There are emotions experienced after birth, often described by certain characteristics such as anger, loss of appetite, mood swings, crying, and sleep problems. Sometimes, excessive expectations and numerous stories about the challenges of motherhood contribute to postpartum depression by causing feelings of guilt and helplessness in the mother. It is a mental disorder that has nothing to do with how much the mother loves the baby (Mieli, 2021). It is a natural phenomenon that occurs in most women after giving birth because of the changes in their lives brought about by the birthing experience, hormonal changes caused by childbirth, and the new responsibilities of having a baby.

According to (Carberg, 2023), Baby blues, Postpartum Anxiety, Postpartum Obsessive - Compulsive Disorder (OCD), Postpartum Panic Disorder, Postpartum post-traumatic stress disorder (PTSD), and Postpartum Psychosis are types of Postpartum depression that can affect mothers. Approximately 10-20% of women develop postpartum depression after giving birth (Hertzberg, 2022). Cleveland (2022) also indicates that 50-80% of parents experience baby blues after delivery. Postpartum depression affects not only the mother but also the father and close relatives. According to (Hertzberg, 2022), approximately 8-10% of fathers experience depression during pregnancy and after childbirth. Different conditions and factors, including physiological, biological, social, and economic factors, contribute immensely to postpartum depression. These factors explain why specific individuals are more susceptible to developing postpartum depression.

Due to that, it has made the study of postpartum depression significant in understanding the causes of this condition and finding ways to alleviate it. This thesis examines postpartum depression in new mothers from diverse backgrounds. It explores strategies to help them overcome it since postpartum depression (PPD) is the most prevalent health issue related to childbirth (Hertzberg, 2022). This thesis was chosen to increase awareness and understanding of postpartum depression among women and to facilitate its easy identification and treatment. Women should also be empowered to understand the condition and the possibility of experiencing it, as it helps lessen the seriousness and duration of postpartum depression. Families will be able to acknowledge the reality of motherhood because the more they are informed about postpartum depression (PPD), the easier it is for them to provide support.

This study aims to ascertain the impact and management of postpartum depression on mothers. The purpose is to produce information related to postpartum depression and find efficient management and treatment strategies that will help to improve the health and well-being of mothers and their families.

2 MATERNAL DEPRESSION

Maternal depression is a type of depression that impacts new mothers both before and after childbirth. Prenatal depression, "Baby blues", Postpartum depression, and Postpartum psychosis are all forms of maternal depression that affect mothers after birth (Akwa, 2015, pp.1-2).

2.1.1 Prenatal Depression

Prenatal is a type of maternal depression that occurs before childbirth. It is characterised by major and minor depressive symptoms, which begin during pregnancy and can last from six months to a year after pregnancy (Peabody & Santoro, 2010). Hormonal changes, psychosocial factors, genetics, and life events (stresses) are major causes of prenatal depression.

2.1.2 “Baby Blues”

“Baby Blues” usually occur just after childbirth. According to (Bobo & Yawn, 2014, p. 3), 50 - 80% of new mothers experience baby blues within 1 to 2 days of birth. It is, therefore, characterised by symptoms such as poor appetite, sleeping problems, tearfulness, anxiety, and a depressed mood. However, this situation can be resolved within 10 to 14 days. Akwa (2015, p. 2) indicates that "baby blues" is the mildest form of maternal depression that typically resolves within a few weeks without requiring treatment.

2.1.3 Postpartum Depression

Postpartum depression is, however, a developed form of baby blues. (Cleveland, 2022) explains that one out of seven new parents experience postpartum depression. It is a severe condition that takes up to a year before the mother can recover. The symptoms include an inability to care for the baby, irritability, fatigue, feelings of guilt, fluctuating emotions, frequent crying, dizziness, hyperventilation, and other forms of panic. Mothers who have had postpartum depression are at a 30% higher risk of experiencing it in each subsequent pregnancy (op. cit).

Also, individuals with pre-existing conditions such as mental disorders and other forms of depression are more prone to experience postpartum depression after giving birth. In severe cases, there may be thoughts of harming oneself or the baby or recurring thoughts of death and suicide (Mayo, 2022).

Postpartum depression affects mothers of different races worldwide; therefore, it is a global issue in maternal health. Figure 1 shows the prevalence of postpartum depression among mothers categorised by race and ethnicity.

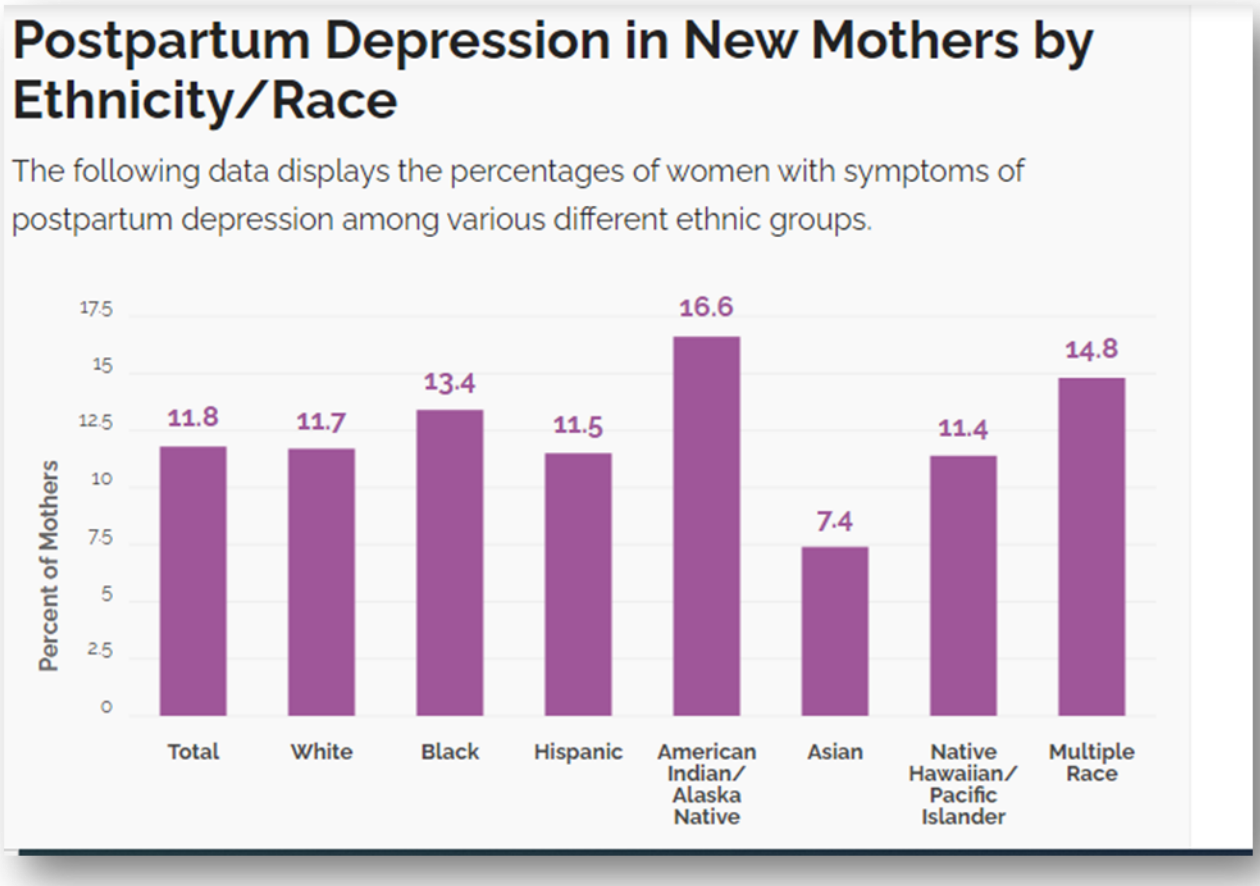

Figure 1: Postpartum depression in new mothers by ethnicity/ race (Carberg, 2023)

As shown in Figure 1, American Indians have the highest percentage of women showing symptoms of postpartum depression, followed by individuals of multiple races and the black race. It was noted that Asians have the lowest rate of women who experience postpartum depression (Carberg, 2023).

2.1.4 Postpartum Psychosis

The most severe form of maternal depression typically occurs three months after childbirth. It usually lasts from weeks to several months, and symptoms include extreme confusion, hopelessness, insomnia, paranoia, delusions or hallucinations, and hyperactivity (Bobo & Yawn, 2014, p.3). There is an increased risk of suicide and harm to the baby. Due to its nature, the rate it affects is meagre, i.e., 1 case per 1000 postpartum women. (op. cit., p.3)

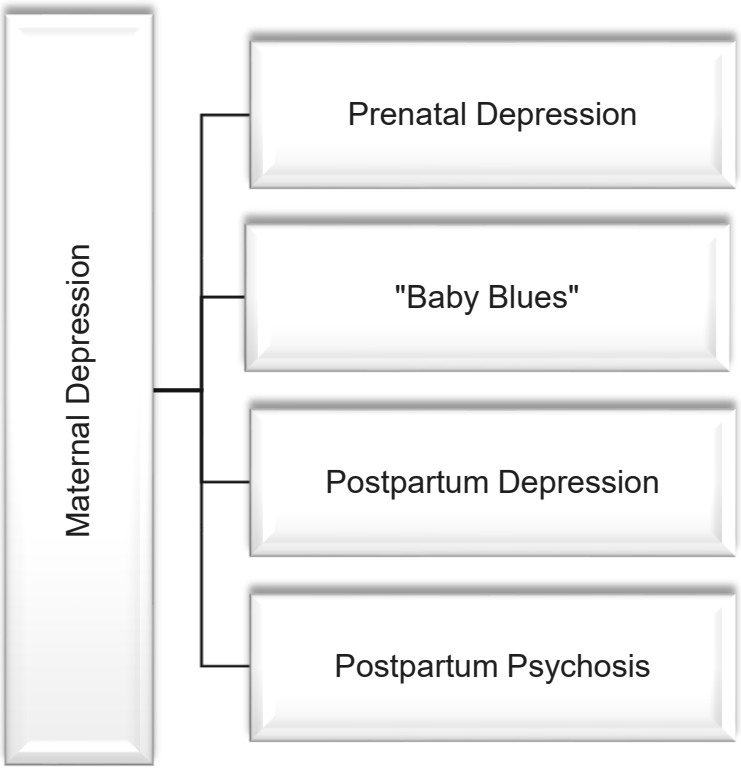

Figure 2: The distinction between the types of maternal depression discussed above in order of severity (Essel & Maiyo, 2023)

2.2 ETIOLOGY OF POSTPARTUM DEPRESSION

The aetiology of postpartum depression explains the risk factors associated with this condition. Postpartum depression does not occur randomly on its own. There are underlying risk factors that contribute to the situation. The intensity of these factors has a direct correlation with the severity of the postpartum depression condition.

2.2.1 Psychological Risk Factors

Refers to a previous history of depression, anxiety, and issues such as premenstrual syndrome that affect the psychological health of the mother (Wisner et al., 2013, pp. 2-4). This is the underlying condition that can trigger postpartum depression. In some instances, unmet desires and expectations, such as the gender of a baby, can contribute to the development of depression. Victims of sexual abuse experience a significant impact on the development of postpartum depression due to the profound damage it inflicts on their emotions and mental health (op. cit., p. 4)

Also, other factors such as low economic foundation, poor communication and connection between spouses, prenatal depression and anxiety are risk factors for adverse pregnancy outcomes. Identifying these factors can help inform preventive efforts and improve screening methods for people at risk. Additionally, other sensitive characteristics, such as unplanned pregnancies, pregnancies not supported by the partner, emotional abuse, and a history of trauma in the family, can also contribute to adverse outcomes of psychological risk factors (Agrawal et al., 2022, pp. 4-5)

2.2.2 Obstetric Risk Factors

Risk factors such as risky pregnancy, complications resulting in emergency caesarean section, and hospitalisation are essential factors that can contribute to postpartum depression (PPD). When there is low haemoglobin or umbilical cord prolapse, there is a considerable risk of postpartum depression (PPD). Ideally, obstetric risk factors are identifiable medical conditions (Mughal et al., 2022, p.3).

According to Ghaedrahmati et al. (2017, pp. 2-3), certain factors have been found to increase the likelihood of experiencing depression after giving birth. These include being under 20 years of age or over 35 years of age, being a first-time mother, having a history of depression, having a uterine artery embolisation, giving birth prematurely, experiencing placental rupture, having a caesarean delivery, undergoing induced labour, and having premenstrual syndrome (Ghaedrahmati et al., 2017, pp. 2-3)

2.2.3 Social Risk Factors

The social environment is crucial for pregnant women's well-being and safe delivery. Toxic social environments have adverse effects that contribute to foundational problems related to depression and stress, which increase the likelihood of pregnant women developing postpartum depression (PPD). Environments such as domestic violence, sexual abuse, and physical abuse (Román-Gálvez et al., 2021, p.2) have a direct impact on the development of maternal depression, which in turn can lead to postpartum depression.

These social factors can contribute to emotional disorders and trauma, which are underlying conditions (Leung et al., 2017, p.1). Again, a social environment where mothers lack support, love, and care has a severe impact on their mental well-being. Financial resources to maintain their living conditions and afford quality healthcare often place a significant burden on individuals, leading to stress and emotional breakdowns. Social factors are crucial when it comes to postpartum depression because its consequences are apparent, and the impacts are also clearly measurable (op. cit., p. 1)

2.2.4 Lifestyle Risk Factors

There are personal and environmental conditions that can impact postpartum depression. Bad eating habits, poor sleep, lack of physical activity, and lack of exercise can cause pregnant women to feel dull and moody. Sleep cycle, for instance, is seen as a significant factor that can influence the risk of depression. Mazzeschi et al. (2014, pp.3-6) emphasise the importance of physical activities and exercise that boost self-esteem; absence results in low self-esteem, which can result in depression.

The enormous benefit of exercise, such as increased endogenous endorphins, positively affects mental health. It also brings about improved self-confidence, self-image, and problem-solving capacity. This positivity brings about good feelings, thus helping to reduce depression and anxiety and, in the absence of these factors, leads to postpartum depression (op. cit., p.6)

Lifestyle choices, such as alcohol intake, tobacco, or cannabis, can increase the risk of postpartum depression. According to Brooks et al. (2022, p.466), substance use is strongly associated with an increased risk of postpartum depression.

2.2.5 Genetic Risk Factors

These factors are genetically oriented, according to (Niel & Payne, 2020, pp. 274-276); postpartum depression originates from the genetics of some women. Some women are more prone to changes in reproductive hormone levels during pregnancy time and after delivery. Moreover, these increase their rate of PPD. Other authors, such as (Couto et al., 2015, pp.103-108 and Guintivano et al., 2014, pp.1-10), have emphasised the role of genetics on postpartum depression among women.

3 IMPLEMENTATION OF THE THESIS

This study aims to ascertain the impact and management of postpartum depression on mothers. The purpose is to produce information related to postpartum depression and find efficient management and treatment strategies that will help to improve the health and well-being of mothers and their families.

The research questions addressed in this thesis are:

1. What are the effects of postpartum depression on mothers?

2. How can postpartum depression be managed holistically?

3.1 Research Methodology

According to Magio et al. (2016, p. 297), a literature review is a research method and tool used to examine previously published studies. Operational standards and procedures are required to obtain study findings that will serve as the foundation for future study outcomes. Descriptive literature reviews, or conventional literature reviews, can be used as a research method. However, they can also be used to investigate phenomena for systematic literature review (Salminen, 2011, p. 16). A comprehensive literature review assists as the foundation of high-quality medical education research, assisting in maximising relevance, originality, generalizability, and effect by providing context, guiding methodology, fostering innovation, minimising duplication of work, and ensuring that professional standards are met (Maggio et al., 2016, p. 297).

Considering the goal and purpose of this thesis, the literature review will assist us with evaluating current articles from reputable sources. Additionally, we adhered to the guidelines outlined by (Carrera-Rivera et al., 2022, pp. 2-5): to develop the objectives, search the available literature, screen for inclusion, evaluate the quality of primary studies, extract data, and analyse data. Furthermore, the evaluation process carefully considered collecting, identifying, and critically analysing existing research articles related to our research topic.

This thesis uses the descriptive literature review method, a common literature review type. It can be described as a comprehensive overview of the chosen topic. In a descriptive literature review, there are no strict limitations on the variety of data and the methodological rules that can be used. Even though the research questions are broader than in a systematic review or meta-analysis, the chosen topic is extensively explained, and features are classified as needed (Salminen, 2011, p. 6).

3.2 Qualitative Method

A qualitative method gathers research on a topic by methodically searching for research data from primary qualitative investigations and integrating the results (Seers, 2012, p. 101). The approach is continually evolving and has lately become more refined. This style of Review is referred to as aggregated or interpretive. The interpretative technique analyses the data, and through this analysis, new insights may emerge that can assist in developing a theory to better comprehend or predict behaviour. Therefore, the interpreted review summarises the data (op. cit).

The qualitative technique generates non-numerical data to understand people's attitudes, interactions, behaviours, and beliefs. Interventional studies can now be enhanced with a new dimension through qualitative research, which cannot be achieved solely through variable assessment (Pathak et al., 2013, p. 192).

3.3 Data Collection and Selection

The data selection and gathering procedure occurred during this thesis's implementation in three phases: the first search, careful selection, and subsequent data analysis. Several search engines, including SeAMK Finna, CINAHL, PubMed, Terveysportti, and Google Scholar, were used to search. The keywords covered a wide range, including synonyms and word combinations for terms such as "postpartum depression," "baby blues," "postpartum psychosis," and "maternal depression." Furthermore, full-text access, peer review, and a maximum of 10 years from the publication were requirements for selected articles for this thesis unless there were justifiable reasons to use old publication and the search for information covered the period from (1.11.2023) to (16.02.2024).

The third step involves thoroughly studying what has been collected after the data retrieval phase. We found the most relevant articles that may answer our research questions during this analytical stage. (57) articles were retrieved, and (43) were the most pertinent to answering our research question. Through this careful method, we ultimately identified the most appropriate articles that significantly contributed to our research questions.

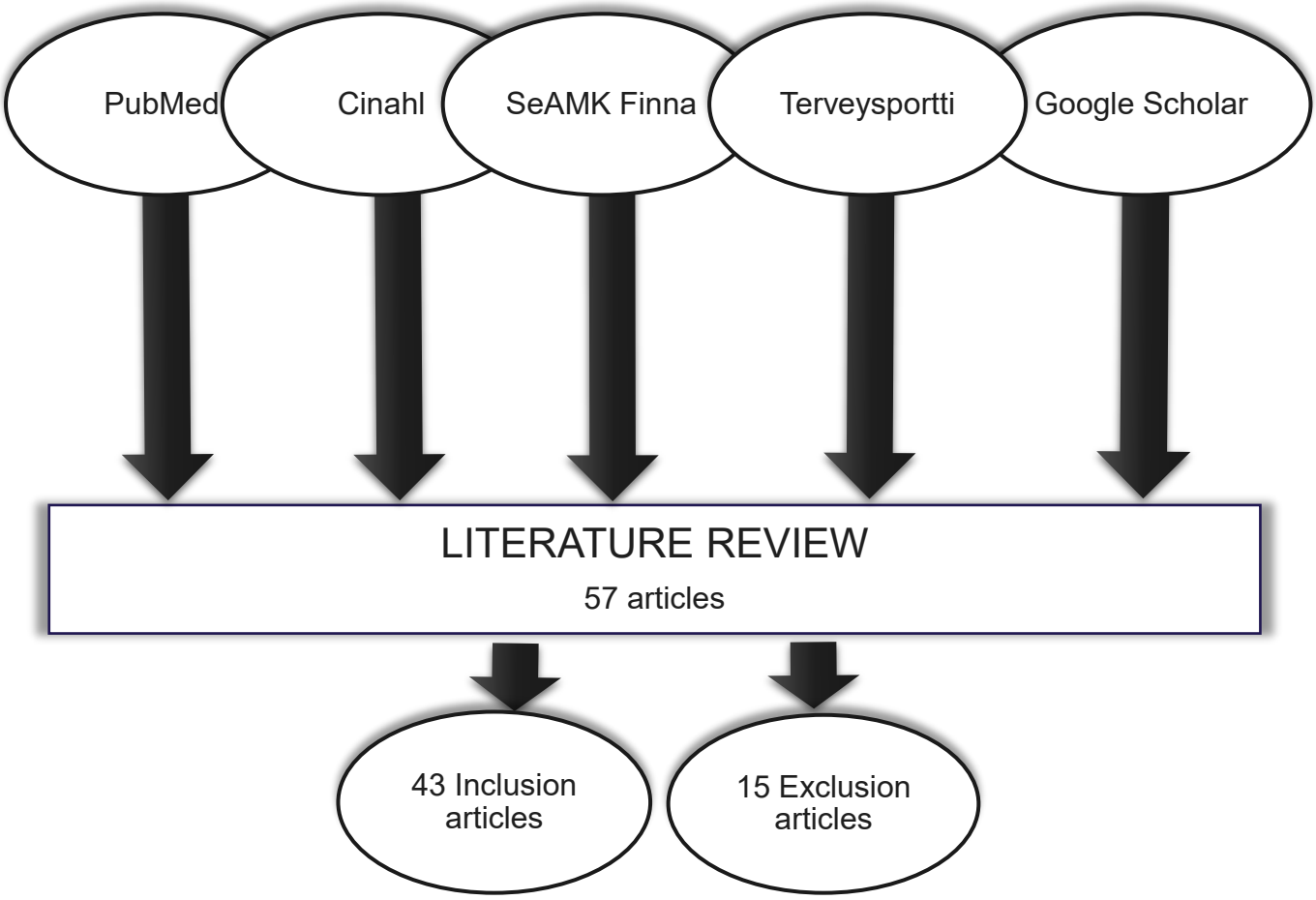

Figure 3: Indicate the data selection process (Essel & Maiyo, 2023)

3.4 Inductive Content Analysis

Inductive content analysis was used to analyse the data collected. Data reduction, organisation, Coding, categorising, interpretation of the data, and evaluation of the interpretation are the main processes of this method using the selected literature, followed by comparing similarities and differences between the extrapolated data (Kyngäs et al., 2020). In the first phase of this thesis, we conducted exploratory research, collecting a wide range of data and

publications relevant to our research question. These sources were evaluated comprehensively, including extensive reading to identify and highlight pertinent points.

After thoroughly reading each of the results of the collected articles, codes were assigned. Morse & Richards (2002) explain Coding as an essential part of the qualitative analysis process whereby words denote the main ideas and themes that appear many times in the various texts. Codes form the basis for building themes and thus help organise extensive data into a simplified and coherent format.

Using open Coding, we found emergent themes within the qualitative data, allowing us to uncover connections and trends actively throughout the collected articles. The Coding was done by identifying the main ideas related to the research questions from the results of the various articles after thoroughly going through them as an in-depth review of similarities and differences across the numerous studies, allowing for a greater understanding of the research setting (Fridberg et al., 2021, pp. 4-5)

The findings were then analysed individually, assuring consistency and relevance to our study themes. This technique aided in the classification of articles as either relevant or irrelevant. (21) Codes were generated from the articles, leading to building themes based on the codes generated. Themes are developed by grouping codes of the same characteristics and giving a name that describes the group. Themes make the data more organised for analysing and answering the research questions. (Moser & Korstjens., 2018, pp. 11-17)

3.5 Ethicality and reliability of the study

Ethical review refers to thoroughly examining and assessing a research proposal, considering the ethical norms typically observed in the specific field of science. It specialises in preventing potential harm caused to the research subjects by the research itself or its outcomes. The Medical Research Act and Decree (488/1999) in Finland controls medical research that involves individuals. (Finnish National Board on Research Integrity TENK, 2021)

According to Bhandari (2021), scholars and researchers must follow ethical guidelines when collecting individual data. Human research often aims to understand everyday

circumstances better, develop practical guidelines, examine habits, and improve lives. Significant ethical considerations exist in what you choose to research and how you perform it.

Professionalism is the primary concern when conducting this thesis research work; dependability, confirmability, and genuineness build the trustworthiness of the outcome (Kyngäs et al., 2020, pp. 41-48). We have guidance from our supervisors and attend seminars that provide lessons on how to write the best thesis. Furthermore, we follow our university's instructions for a written work guide that offers a pathway to follow during our writing process. In searching for sources and articles, we strictly obtained them from trusted and reliable evidence-based databases such as PubMed, CINAHL, SeAMK Finna, Terveysportti, and Google Scholar.

Additionally, using a systematic literature review methodology, analysing methodological accuracy, completing rigorous data analysis, and requesting peer review improves the thesis findings' credibility. The thesis will contribute to existing knowledge on postpartum depression and provide helpful insights for managing this crucial issue impacting mothers.

4 RESULTS OF THE STUDY

The analysis of the data collected through the literature review seeks to respond to the research question: What is the effect of postpartum depression on mothers, and how has it been managed holistically? Twenty-one codes were generated during the coding phase, and three sub-themes were formed to address the research questions. Figure 4 below illustrates the sub-themes and codes developed during the coding phase.

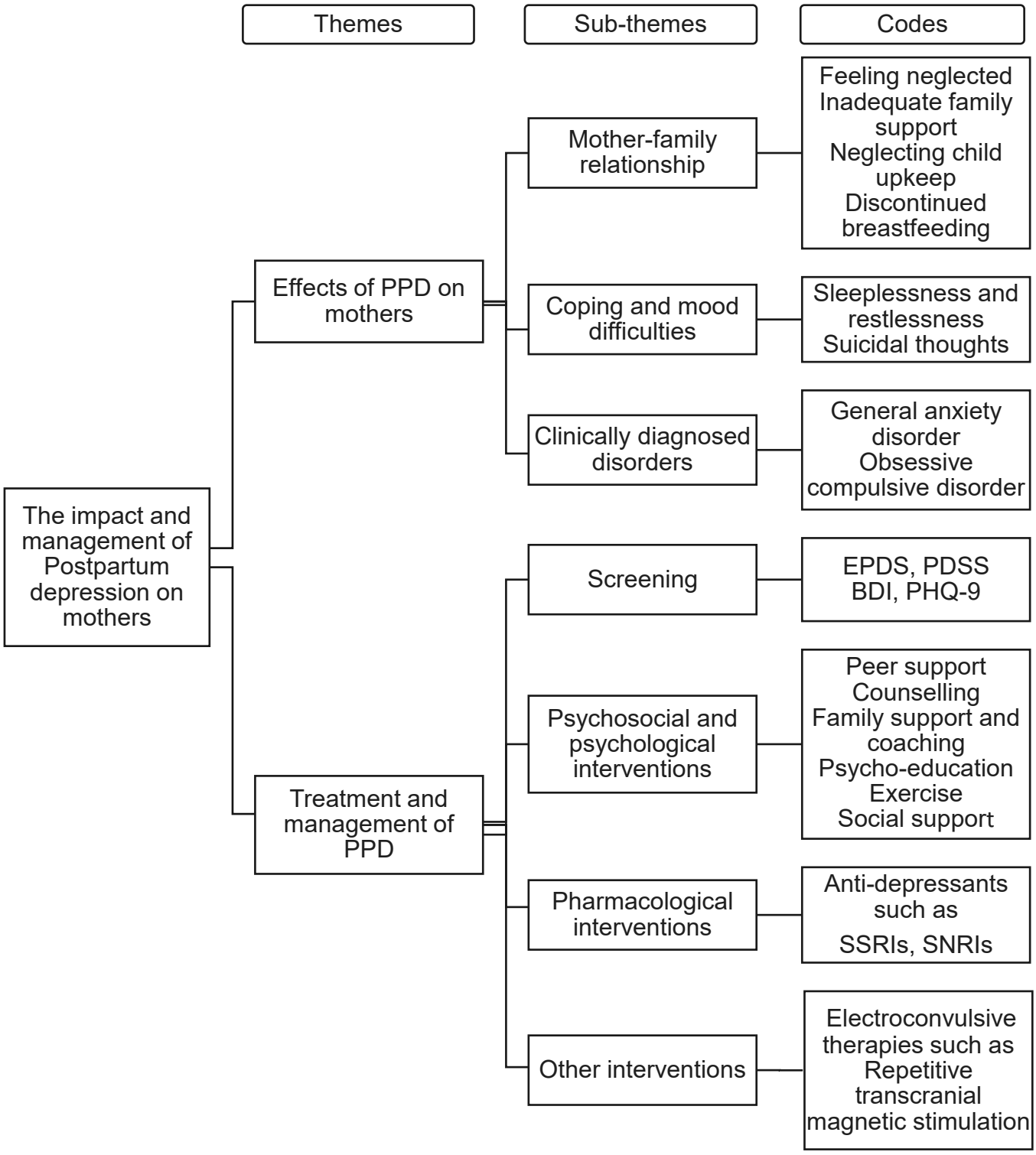

Figure 4: The sub-themes and the codes developed during the coding phase (Essel & Maiyo, 2024)

4.1 Effects of Postpartum Depression on the mother

Based on the analysis, the effects of postpartum depression on mothers were mother-family relationships, clinically diagnosed disorders and coping and mood difficulties. As indicated in figure 5 below.

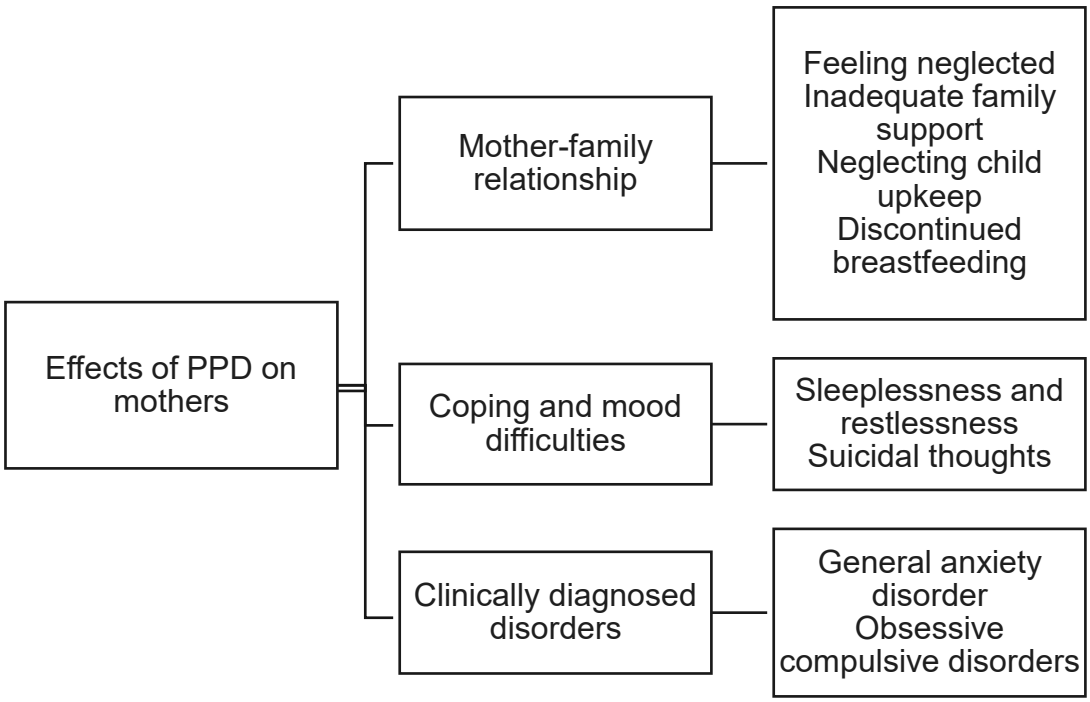

Figure 5: The effect of postpartum depression on the mother discussed below (Essel & Maiyo, 2023)

4.1.1 Mother-Family Relationship

The mother's condition affects the entire family, i.e. the child and the partner. A mother's depression dramatically affects her ability to take safe care of her child. The condition severs the total and healthy development of the mother-child relationship (12, 34). There is neglect of the upkeep of the child, which has an impact on the mental health not only of the child but also of the entire family. The implication of the depressive status of the mother has a direct effect on the family's ability to deal with the mental health issue confronting them. It affects the later life of children, who mainly grow under the care of such mothers. This tends to build a particular cycle of mental health problems in the family. Also, crib death increases in

depressive mothers because of the inability to properly take care of the baby (31). There is also long-term health, developmental and behavioural problems for the child (38). In some instances, the mothers discontinue breastfeeding, which has severe consequences for the child because of their inability to eat and sleep properly. It affects the cognitive, language and motor development of the child. In worse situations, mothers engage in risky activities with their infants, such as smothering, smoking in front of them, and not putting them in the recommended back sleeping position (34).

The partner also goes through challenges because of the condition of the mother. When the mother experiences postpartum depression, the father is also at risk of developing the same condition as that of the mother (14). A feeling of neglect, constantly bursting into tears and resentful for having the baby and being under pressure to conform to gender expectations. Some struggle to concentrate at work and feel inadequate to support their families (9, 13).

4.1.2 Coping and Mood Difficulties

One of the most common problems of postpartum depression in mothers is the ability to get quality and sound sleep and being able to wake early in the early hours of the morning. This begins during pregnancy, and the situation becomes worse towards the end of the pregnancy. A lack of sleep often characterises the difficulty of sleeping. The inability to sleep causes fear and worry, exacerbating the mother's situation.

There is also restless leg syndrome, with an intentional edge to move the limbs, which often interferes with sleep. In some extreme cases, mothers who suffer from postpartum depression may experience excessive sleepiness, also known as hyper-sleepiness (2). The lack of good sleep affects the mother's everyday activities, resulting in an inability to perform specific basic tasks due to tiredness and frustration.

Suicidal Thoughts

An extreme form of postpartum depression may involve having suicidal thoughts (33). The urge to harm oneself, and even the baby, is a severe case that occurs when depression has persisted for a prolonged period without adequate treatment or management of the situation.

The main symptoms that can trigger suicidal thoughts include severe mood disturbances, cognitive distortions, and low self-esteem in mothers. The situation makes mothers less sensitive and responsive to their infant's cues (6).

4.1.3 Clinically Diagnosed Disorders

A significant problem that arises from postpartum depression is the development of ***generalised anxiety disorder***. It is characterised by constant worry and fear of performing everyday tasks, including simple tasks of daily importance. The mother knows that activities are to be performed, such as feeding the baby and caring for the family. Although these activities are small, the mother's situation makes her assume the cumbersome nature of the task, which puts extra stress, and at the end of the day, she might not attempt to do anything. This problem also has a direct connection with a sleeping disorder as the mother, being disturbed by the activities of the day, is unable to sleep during the night out of worrying (39)

Obsessive-compulsive disorder

These distressing thoughts forcibly push their way into the mother's mind. Postpartum depression puts mothers in a situation where they cannot help but constantly dwell on specific irrational thoughts. This leads them to engage in ritualistic and forceful activities to suppress their anxiety (22). For example, a mother may experience compulsive thoughts of contamination, causing her to repeatedly wash her hands throughout the day for several minutes, even if her hands are already clean. As the name suggests, these thoughts are forceful, rendering the mother unable to resist them. Due to these compulsive thoughts, they may engage in ritual activities for the rest of their lives (26).

4.2 How to manage postpartum depression holistically

Based on the analysis, the management of postpartum depression was screening, Psychosocial and psychological intervention, pharmacological interventions, and other interventions such as electroconvulsive therapies. These are shown in figure 6 below.

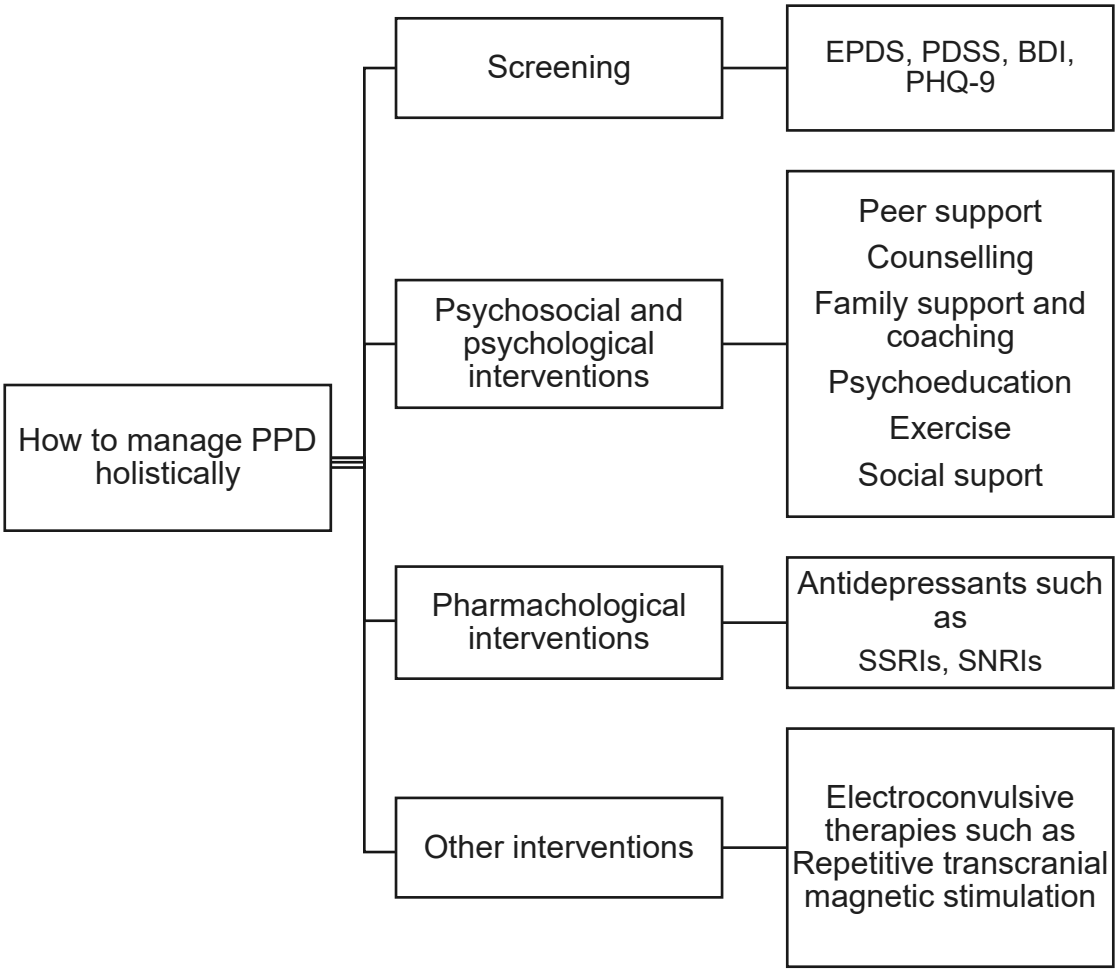

Figure 6: The holistic management of postpartum depression (Essel & Maiyo, 2024)

4.2.1 Screening

There are many ways in which postpartum depression is managed. First, screening is essential in identifying people likely to experience this challenge. It is a method of utilising tools, such as questionnaires, to identify individuals who may be at risk of displaying signs or symptoms of postpartum depression. The screening tools are typically used during the postpartum period. Common among the screening tools are the Edinburgh postnatal depression scale, patients' health questionnaires - 9, the Postpartum depression screening scale and the Beck Depression Inventory I or II (19, 21, 43). Figure 7 below compares four scales used in screening focused on depression mentioned above.

Tool	Scale and Number of Items	Screening Focus	Dimensions Measured	Cronbach α
BDI[62]	4-point scale, 21 items	Depth of depression; not specific to PPD	Mood, pessimism, sense of failure, lack of satisfaction, guilty feeling, sense of punishment, self-hate, self-accusations, self-punitive wishes, crying spells, irritability, social withdrawal, indecisiveness, body image, work inhibition, sleep disturbances, fatigability, loss of appetite, weight loss, somatic preoccupation, loss of libido	0.86
EPDS[60]	4-point scale, 10 items	Depression after childbirth	Inability to laugh, inability to look forward to things with enjoyment, unnecessary self-blame, feeling anxious or worried for no reason, feeling scared or panicky for no reason, feeling overwhelmed, sleeping disturbances, feeling sad or miserable, crying episodes, thoughts of self-harm	0.87
PDSS[61]	5-point scale, 35 items along 7 dimensions	Detection of PPD	Sleeping and eating disturbances, anxiety or insecurity, emotional lability, cognitive impairment, loss of self, guilt or shame, suicidal ideation	Range: 0.83 (sleeping and eating disturbances) to 0.94 (loss of self)
PHQ-9[63]	4-point scale, 9 items	Severity of depression; not specific to PPD	Little interest or pleasure in activities, feeling down or hopeless, sleeping or eating disturbances, fatigue, feeling like a failure, trouble concentrating, hypo- or hyperactivity, suicidal ideation	0.89 (primary care patients); 0.86 (obstetrics-gynecology patients)

BDI= Beck Depression Inventory; EPDS = Edinburgh Postnatal Depression Scale; PPD = postpartum depression; PDSS = Postpartum Depression Screening Scale; PHQ-9 = Patient Health Questionnaire 9.
Note: Cronbach α is a measure of reliability (internal consistency); scores above 0.7 generally indicate high reliability.

Figure 7: Comparison of four scales used in screening focused on depression (Beck et al., 1961; Beck, 2000; Cox et al., 1987; Kroenke et al., 2001)

The Edinburgh Postnatal Depression Scale (EPDS) is the most commonly and most widely used screening tool for postpartum depression. It is available in 50 languages and made of 10 questions that take less than 5 minutes to answer the questionnaire. The EPDS scale developed by (8) is widely used in different countries to assess the presence and seriousness of depressive symptoms in postpartum women. The self-report questionnaire consists of 10 questions to evaluate the presence of depressive symptoms. The total scores are calculated based on the women's responses. Responses with a higher score indicate a higher likelihood of depression, while a lower score means the opposite.

Healthcare providers ideally use the scale during the postpartum checkup, typically a few weeks after birth. However, in some cases, it may also be used during prenatal visits. Healthcare workers such as midwives, primary healthcare providers, and obstetricians are typically involved in administering and interpreting the results. The questionnaire is usually standardised and addresses issues such as mood changes, energy levels, sleep patterns, thoughts of self-harm, and any related symptoms of depression. The maximum score for the form is 30 points, and ten or more indicates possible depression.

Pregnant women with a score between 10-12 are required to undergo the EPDS again after two to four weeks. Those with more than 13 points indicate the possibility of major depression. Based on the form, individuals with a score of 13 or higher undergo a thorough clinical evaluation and diagnosis of depression. Following this, appropriate interventions are implemented. It is important to note that other screening procedures, which assess the underlying condition of pregnant women with depression, are crucial for addressing depressive symptoms before they arise and implementing appropriate interventions. The sample of the EPDS form is attached in Appendix 1.

4.2.2 Psychosocial and Psychological Intervention

A large proportion of postpartum depression cases are mild and, therefore, can be treated with psychosocial interventions provided by maternity and child health

clinics. Psychosocial treatment deals with several interventions that aim to address the emotional, social, and psychological well-being of individuals experiencing postpartum depression (25).

Peer Support

Peer support is an essential intervention for mothers experiencing postpartum depression (20). This intervention aims to connect individuals who have experienced or are currently experiencing postpartum depression, allowing them to interact and support each other in managing their condition. Peer support is a highly experiential process for those involved. It can be administered in person or virtually, either by phone or using e-health technology. Women with postpartum conditions find peer support a beneficial tool that helps reduce the symptoms (24).

Counselling

Counselling is also an essential psychosocial tool for assisting mothers with PPD. It can take the form of individual therapy, which involves one-on-one sessions with a mental health professional, or group therapy, which is a support group where individuals share their experiences on coping with strategies under the guidance of health professionals (11). Mood management groups and other self-help programs integrated into counselling can be effective in reducing the risk of depression (17).

Family Support and Coaching

This tool is critical in the management of PPD. Family members who are also affected are included in the management plan for mothers. They assist new mothers with household support activities such as cleaning, cooking, laundry, etc. Family support helps to reduce the burden on the mother, which has a direct impact on lowering her symptoms of depression. As household activities, coupled with taking care of the child, contribute to postpartum depression (PPD) in women, engaging family members can have a positive impact on the overall well-being of the mother. The support from family extends beyond just meeting physical needs; it also includes emotional support, such as having someone to talk to, discussing emotional needs, and the freedom to seek emotional help. These unique

aspects of family support contribute to the stability of the mother's emotional and psychological well-being (22).

Psychoeducation

Cognitive behavioural therapy (CBT) is a structured psychological treatment in which mothers can learn coping mechanisms to help relieve their symptoms. They learn the correct way of thinking and identify unhealthful behaviour patterns. It aims to help mothers change their thinking and behaviour with techniques such as planning with the therapist and doing homework outside the session (1). It is the first therapy for perinatal depression, and it is seen as more effective than medication (16). It addresses past relationships and personality traits and is more directive (41); it is aimed at helping patients deal with issues such as unresolved grief, difficult life transitions, issues with unfulfilling relationships and more maladaptive thoughts to improve relationships and personal life management.

Exercise

Physical activities such as yoga, jogging, and sports are seen as best for women undergoing PPD. They help alleviate stress, anxiety, and depression and contribute to good sleep. Exercise-based interventions, such as acupuncture and infant massage, have been seen to have the potential to prevent or reduce PPD (5). Women undergoing activities such as jogger aroma therapy and massage have described their experiences as effective in bringing about some relief (27). Aerobic exercises also help to reduce PPD (9).

Social support

Social support involves improving the quality of the patient’s social interaction and interpersonal relationships. It implies helping mothers develop social support networks, enhancing communication with others, mitigating conflict, and providing guidelines to transition to motherhood (42). Social support is effective in dealing with rudimental courses of PPD by giving the patient practical social tools and interventions. Social support brings about stability in the patient's emotions and the ability to handle other challenges with motherhood because she does not deal with the situation alone.

4.2.3 Pharmacological Intervention

If PPD is not responsive to psychosocial intervention, medication and antidepressant medication are required. It can be used alone or in addition to psychosocial intervention. Pharmacological intervention is applied when the PPD is severe; in that case, selected serotonin reuptake inhibitors (SSRIs), which are first-line antidepressant medications, are used. If these medications are ineffective, other antidepressants may be used, according to (28).

Generally, antidepressant medicines result in a higher remission rate compared to placebo; however, there is no clear indication that a particular antidepressant is more effective than another. The SSRI appears to have the most minimal passage into breast milk. Therefore, it is highly preferred when the patient is starting the therapy, but moving from one SSRI to another is not recommended for safety purposes because it can result in relapse. Because all the SSRIs pass minimally into breast milk, there is hardly any profound adverse effect on the healthy full-term infant (10). This implies that the benefit of breastfeeding is far away from the impact of SSRI exposure. Serotonin-norepinephrine reuptake inhibitors (SNRIs) and Mirtazapine have minimal passage into breastmilk (32, 35), but drugs such as Bupropion are avoided because there have been reported cases of seizure (36).

Tricyclic antidepressants have higher passage into the breastmilk than SSRIs. However, in situations where Tricyclics are used, Nortriptyline is considered to have the best safety profile. Doxepin is viewed otherwise because of reports that show adverse effects (10). The most critical barrier to pharmacological treatment is lactation, and that prevents PPD patients from choosing this treatment but opting for psychological treatment (37, 40)

4.2.4 Other Interventions

This involves the use of electroconvulsive therapies such as Repetitive transcranial magnetic stimulation. This technique has recently been introduced for the treatment of intense depression and, for that matter, is used in the treatment of PPD (7). The treatment involves placing a high-intensity magnetic coil on the scalp and delivering fast-changing magnetic field pulses, which affect electrical activity in the cortical neurons and consequently improve mood.

Electroconvulsive therapy, as a procedure, is done under general anaesthesia, and it involves administering small electric currents through several electrodes placed on the scalp to induce a brief seizure intentionally. This new method adjusts brain chemistry, reversing major depression symptoms (15). Few studies conducted with small groups of women buttresses this point (7, 18); however, many women do not prefer this treatment due to the adverse effect of memory impairment (18).

5 DISCUSSION

PPD is a unique health challenge among pregnant women. It occurs within a specific period, that is, after childbirth. It is preceded by an equally important event, which is pregnancy. The causes of PPD, according to these studies, can be grouped into two, which are the underlying/existing conditions that make the mother prune to PPD. These include history of abuse, poor economic and social environment, history of anxiety disorders, etc. These factors, if untreated, form a significant foundation that triggers PPD after childbirth. They usually show up during pregnancy and lead after childbirth, becoming severe if not treated. The next part is conditions after childbirth that trigger PPD. After birth, conditions such as loneliness due to lack of support from a spouse or family members put intense pressure and stress on the mother, which can result in PPD.

Among the effects of PPD is related to the family and the mother in general. The challenges the new mother goes through affect the entire family, including the newborn baby (Slomian et al., 2019), which leads to situations such as child neglect, discontinued breastfeeding, and poor baby development- language, cognitive and motor. This agrees with a study by Trussel et al. (2018), who indicate that the child has long-term health, developmental and behavioural challenges. In some cases, as revealed by the study, the father can also experience PPD when the pressure and burden are laid on him alone. This is in line with Eddy et al. (2019), who stipulate that the pressure from the mother who is in a PPD condition can be passed to the father as well.

Also, the condition of the new mother brings about the challenge of coping with the emotions, resulting in emotional difficulties. Conditions such as dealing with everyday activities and in the event of an unhealthy baby, frequent visitation to the hospital, crying consistently, and sleeplessness on the part of the baby negatively impact the emotional stability and the well-being of the mother (Ämmälä, 2021). The reason is the mother's inability to have a proper sleep and the battle with fear and worry, as well as many tasks to be performed at home, leads to feelings of sadness and anxiety, irritation and anger, poor concentration, feelings of guilt and hopelessness and, in severe cases, an attempt of suicide and thought of death.

Again, there is the development of anxiety disorders because of the changes that have taken place in the life of the mother. This is triggered by worry and the numerous tasks and

responsibilities of being a new mother, resulting in obsessive-compulsive disorders such as repeated hand washing, vacuuming, and cleaning, which, if untreated, can become ritual activities for the rest of their lives. They face forceful thoughts that paralyse their ability to resist, resulting in compulsive thoughts.

In the management of PPD, screening is the first phase of the intervention process; it involves identifying mothers who are likely to experience PPD. The tools used include questionnaires and face-to-face interaction. The primary screening tools are the Edinburgh postnatal depression scale, patients' health questionnaire-9, postpartum depression screening scale and Beck depression inventory I & II (Beck et al., 1961; Beck, 2000; Cox et al., 1987; Kroenke et al., 2001)

The study identified three main interventions of PPD: psychosocial and psychological interventions, pharmacological interventions, and other interventions, such as electroconvulsive interventions. In dealing with PPD among mothers, Psychosocial and psychological interventions are deemed as the best approach to deal with a large proportion of postpartum cases (McDaid et al., 2019). It involves peer support, counselling, family support, coaching, and psychoeducation (American Psychological Association, 2017; Dennis, 2014). All these are very vital in providing the required information and social network which help the mother to overcome PPD symptoms. Information is a critical aspect of taking care of newborn babies. Knowledge of handling the baby at various stages requires getting quality information. In the event where this information is lacking, the parent, especially the mother, finds it challenging to handle the baby due to the lack of information, and this begins to cause stress and, if untreated, leads to anxiety and depression. Thus, the factors mentioned above provide the needed and critical information.

Also, a community where the mother can get other peers to network with and share experiences attributed to their peculiar situations as new mothers play a vital role in building the emotional stability of PPD mothers. As suggested by Leger (2015), social networking is an indispensable tool that helps to alleviate symptoms of PPD. Where this is lacking, it brings anxiety to the mother.

The pharmacological intervention implies giving medication to PPD mothers, especially in the event the psychosocial intervention does not yield results. Medications such as (SSRIs) and (SNRIs) are often used for the treatment of mothers with PPD because they appear to have the most minimal passage into breast milk (Davanzo et al., 2011). The medication can also be used alone or in addition to psychosocial intervention. However, medication such as Bupropion is avoided due to its adverse effect on reported cases of seizure. Due to the challenges of lactating, PPD mothers usually opt for psychosocial intervention/ treatment (Walton et al., 2014)

Finally, in severe cases of PPD, electroconvulsive therapies are used. According to Cox et al. (2020), the method is used for very intense depression. The intervention is administered under general anaesthesia to modify the brain chemistry, which lowers the symptoms of depression (Ferrier & Waite, 2019).

5.1 IMPLICATION OF THE STUDY TO NURSE

PPD is a severe challenge that affects new mothers. Although many mothers experience this problem, not much is reported due to factors such as the stigma of being identified with mental illness, and especially in low-income countries, the situation can be worse where the stigmatisation of mental illness is high and there is a lack of finance to seek proper medical care. For this reason, nurses play a significant role in dealing with PPD by educating patients, screening them, and referring them to specialists where they can be given the needed support. As a source of providing emotional support to mothers with PPD, nurses can help remove the stigma of PPD by letting the women know that they are not to be blamed, they will get better, and most importantly, they understand the condition and are not alone.

6 CONCLUSION AND FURTHER RECOMMENDATION

The results of this study addressed the effect and management of PPD among mothers. The effect includes mother-family relations problems, coping and mood difficulties, and clinically diagnosed disorders. In providing intervention, screening is the best and the first phase upon which interventions such as psychosocial, psychological, pharmacological, and electroconvulsive therapy are administered. Based on this study, future researchers need to conduct empirical studies on the role of social support in managing PPD. A quantitative study in this regard would be helpful.

Recommendations

1. There should be an enhancement of regular postpartum depression (PPD) screening in prenatal and postnatal appointments for early detection and treatment.

2. Since family members play a critical role in managing PPD, Family members should be included in the therapy administered to mothers with PPD. Psychoeducation and family therapy can improve family understanding and help strengthen mother-family bonds.

3. Social networking and activities such as peer support and other social groups play vital roles in helping new mothers overcome PPD symptoms. Mothers can share their stories, ease loneliness, and connect through online forums, support groups, and community outreach activities during those social groupings.

4. Creating Public awareness of postpartum depression (PPD) through public education, media campaigns, and health platforms can help people understand PPD and its management.

5. There should be a collaboration between healthcare practitioners, mental health specialists, social workers, educators, and lawmakers in developing a comprehensive PPD policy to address postpartum depression (PPD).

7 BIBLIOGRAPHY

Akwa, A. (2015). What is the Importance of Educating Women on Postpartum Depression? Sophia, St. Catherine University. https://sophia.stkate.edu/msw_papers/420/

Agrawal, I., Mehendale, A. M., & Malhotra, R. (2022, October 31). Risk factors of postpartum depression. Cureus. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9711915/

Bhandari, P. (2023, June 22). *Ethical considerations in research: Types & examples*. Scribbr. https://www.scribbr.com/methodology/research-ethics/

Bobo, W. V., & Yawn, B. P. (2014, June). Concise Review for physicians and other clinicians: Postpartum depression. Mayo Clinic proceedings. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4113321/

Carberg, J. (2023, February 16). Postpartum depression. https://www.postpartumdepression.org/postpartum-depression/

Carrera-Rivera, A., Ochoa, W., Larrinaga, F., & Lasa, G. (2022). How to conduct a systematic literature review: A quick guide for computer science research. MethodsX, 9, 101895.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9672331/

Cleveland Clinic. (2022, December 4). Postpartum depression. https://my.clevelandclinic.org/health/diseases/9312-postpartum-depression

Couto, T. C., Brancaglion, M. Y., Alvim-Soares, A., Moreira, L., Garcia, F. D., Nicolato, R., Aguiar, R. A., Leite, H. V., & Corrêa, H. (2015). Postpartum depression: A systematic review of the genetics involved. World journal of psychiatry, 5(1), 103–111.https://pubmed.ncbi.nlm.nih.gov/25815259/

E., Brooks, O., Carty, C. L., Ranjo, S., McPherson, S., & Barbosa-Leiker, C. (2022). Substance use and mental health in pregnant women during the COVID-19 pandemic. Journal of reproductive and infant psychology, 40(5), 465–478. https://pumed.ncbi.nlm.nih.gov/33870821/

Finnish National Board on Research Integrity TENK. (2021, January 12). Ethical Review in Finland. Finnish National Board on Research Integrity TENK. https://tenk.fi/en/ethical-review/ethical-review-finland

Fridberg, H., Wallin, L., & Tistad, M. (2021). [The innovation characteristics of person-centered care as perceived by healthcare professionals: an interview study employing a deductive-inductive content analysis guided by the consolidated framework for implementation research. BMC health services research, 21(1), 904. https://doi.org/10.1186/s12913-021-06942-y

Guintivano, J., Arad, M., Gould, T. D., Payne, J. L., & Kaminsky, Z. A. (2014). Antenatal prediction of postpartum depression with blood DNA methylation biomarkers. Molecular psychiatry, 19(5), 560–567.https://pubmed.ncbi.nlm.nih.gov/23689534/

Ghaedrahmati, M., Kazemi, A., Kheirabadi, G., Ebrahimi, A., & Bahrami, M. (2017, August 9). Postpartum depression risk factors: A narrative review. Journal of education and health promotion. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5561681/

Helvi Kyngäs, Kristina Mikkonen, & Maria Kääriäinen. (2020). *The Application of Content Analysis in Nursing Science Research. Springer.* https://libts.seamk.fi/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=2285425&site=ehost-live&scope=site&ebv=EB&ppid=pp_C1

Hertzberg, T. (2022, April 5). Postpartum depression. Duodecim. https://www.terveyskirjasto.fi/dlk00505

Leung, B. M., Letourneau, N. L., Giesbrecht, G. F., Ntanda, H., Hart, M., & APrON Team (2017). Predictors of Postpartum Depression in Partnered Mothers and Fathers from a Longitudinal Cohort. Community Mental Health Journal, 53(4), 420–431. https://pubmed.ncbi.nlm.nih.gov/27826783/

Maggio, L. A., Sewell, J. L., & Artino, A. R., Jr (2016). The Literature Review: A Foundation for High-Quality Medical Education Research. Journal of graduate medical education, 8(3), 297–303. https://doi.org/10.4300/JGME-D-16-00175.1

Mayo Clinic. (2022, November 24). Postpartum depression. https://www.mayoclinic.org/diseases-conditions/postpartum-depression/symptoms-causes/syc-20376617

Mazzeschi, C., Piana, N., Capezzali, D., Mommi, A., Aiello, C., Gatti, M., Romani, G., Buratta, L., Battistini, D., Nasini, G., Reginato, E., Urbani, L., Pazzagli, C., Ferri, C., Ambrosio, G., & De Feo, P. (2014). The impact of strenuous group physical activity on mood states, personal views, body composition, and markers of myocardial damage in overweight/obese adults: the "Step-by-step Italy's coast to coast" trek. BioMed research international, 2014, 854129. https://pubmed.ncbi.nlm.nih.gov/25143947/

Mieli. (2021, August 25). Depressive disorder. https://mieli.fi/en/mental-ill-health/depression/

Morse, J. M., & Richards, L. (2002). Readme First for a User's Guide to Qualitative Methods. Thousand Oaks, CA: Sage Publications.

Moser, A., & Korstjens, I. (2018). Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. The European journal of general practice, 24(1), 9–18. https://doi.org/10.1080/13814788.2017.1375091

Mughal, S., Azhar, Y., & Siddiqui, W. (2022). Postpartum depression. National Library of Medicine. https://www.ncbi.nlm.nih.gov/books/NBK519070/

Niel, M. S. V., & Payne, J. L. (2020, May 1). *Perinatal depression: A Review*. Cleveland Clinic Journal of Medicine. https://www.ccjm.org/content/87/5/273.long

Pathak, V., Jena, B. and Kalra, S. (2013). Qualitative research, Perspectives in clinical research.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3757586/#:~:text=Qualitative%20method%20is%20used%20to,gaining%20increased%20attention%20across%20disciplines

Román-Gálvez, R. M., Martín-Peláez, S., Fernández-Félix, B. M., Zamora, J., Khan, K. S., & Bueno-Cavanillas, A. (2021). Worldwide Prevalence of Intimate Partner Violence in Pregnancy. A Systematic Review and Meta-Analysis. Frontiers in public health, 9, 738459. https://pubmed.ncbi.nlm.nih.gov/34527656/

Salminen, A. (2011). Mikä Kirjallisuuskatsaus? : Johdatus Kirjallisuuskatsauksen Tyyppeihin Ja Hallintotieteellisiin Sovelluksiin. Osuva. https://urn.fi/URN:ISBN:978-952-476-349-3

Seers, K. (2012). What is a qualitative synthesis? Evidence-Based Nursing, 15(4), 101–101. https://doi.org/10.1136/ebnurs-2012-100977

Wisner KL, Sit DKY, McShea MC, et al. (2013). Onset timing, thoughts of self-harm, and diagnoses in postpartum women with screen-positive depression findings. JAMA Psychiatry 70: 490–98. https://pubmed.ncbi.nlm.nih.gov/23487258/

7.1 BIBLIOGRAPHY FOR THE LITERATURE REVIEW

1. American Psychological Association. What is cognitive behavioral therapy? Am Psychol Assoc 2017. Available at: https://www.apa.org/ptsd-guideline/patientsand-families/cognitive-behavioral

2. Ämmälä, A.-J. (2021, December 10). Raskausajan mielenterveyden häiriöt. Duodecim. https://www.terveysportti.fi/apps/dtk/ltk/article/ykt02031?toc=500

3. Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. Archives of general psychiatry, 4, 561–571. https://doi.org/10.1001/archpsyc.1961.01710120031004

4. Beck, C. T., & Gable, R. K. (2000). Postpartum Depression Screening Scale: development and psychometric testing. Nursing research, 49(5), 272–282. https://doi.org/10.1097/00006199-200009000-00006

5. Carter, T., Bastounis, A., Guo, B., & Jane Morrell, C. (2019). The effectiveness of exercise-based interventions for preventing or treating postpartum depression: a systematic review and meta-analysis. *Archives of women's mental health*, *22*(1), 37–53. https://doi.org/10.1007/s00737-018-0869-3

6. Chen, C., Okubo, R., Okawa, S., Hagiwara, K., Mizumoto, T., Higuchi, N., Nakagawa, S., & Tabuchi, T. (2023). The prevalence and risk factors of suicidal ideation in women with and without postpartum depression. *Journal of affective disorders*, *340*, 427–434. https://doi.org/10.1016/j.jad.2023.08.051

7. Cox, E. Q., Killenberg, S., Frische, R., McClure, R., Hill, M., Jenson, J., Pearson, B., & Meltzer-Brody, S. E. (2020). Repetitive transcranial magnetic stimulation for the treatment of postpartum depression. Journal of affective disorders, 264, 193–200. https://doi.org/10.1016/j.jad.2019.11.069

8. Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. The British journal of psychiatry: the journal of mental science, 150, 782–786. https://doi.org/10.1192/bjp.150.6.782

9. Da Costa, D., Danieli, C., Abrahamowicz, M., Dasgupta, K., Sewitch, M., Lowensteyn, I., & Zelkowitz, P. (2019). A prospective study of postnatal depressive symptoms and associated risk factors in first-time fathers. *Journal of affective disorders*, *249*, 371–377. https://doi.org/10.1016/j.jad.2019.02.033

10. Davanzo, R., Copertino, M., De Cunto, A., Minen, F., & Amaddeo, A. (2011). Antidepressant drugs and breastfeeding: a review of the literature. *Breastfeeding medicine : the official journal of the Academy of Breastfeeding Medicine*, *6*(2), 89–98. https://doi.org/10.1089/bfm.2010.0019

11. Dennis C. L. (2014). Psychosocial interventions for the treatment of perinatal depression. *Best practice & research. Clinical obstetrics & gynecology*, *28*(1), 97–111. https://doi.org/10.1016/j.bpobgyn.2013.08.008

12. Dubber, S., Reck, C., Müller, M., & Gawlik, S. (2015). Postpartum bonding: the role of perinatal depression, anxiety, and maternal-fetal bonding during pregnancy. *Archives of women's mental health*, *18*(2), 187–195. https://doi.org/10.1007/s00737-014-0445-4

13. Earls, M. F., & Committee on Psychosocial Aspects of Child and Family Health American Academy of Pediatrics (2010). Incorporating recognition and management of perinatal and postpartum depression into pediatric practice. *Pediatrics*, *126*(5), 1032–1039. https://doi.org/10.1542/peds.2010-2348

14. Eddy, B., Poll, V., Whiting, J., & Clevesy, M. (2019). Forgotten Fathers: Postpartum Depression in Men. Journal of Family Issues, 40(8), 1001-1017. https://doi.org/10.1177/0192513X19833111

15. Ferrier IN, Waite J, editors. The ECT handbook. 4th ed. Cambridge, UK; New York, NY: Cambridge University Press; 2019. Cambridge medicine.

16. Gautam, M., Tripathi, A., Deshmukh, D., & Gaur, M. (2020). Cognitive Behavioral Therapy for Depression. *Indian journal of psychiatry*, *62*(Suppl 2), S223–S229. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_772_19

17. Gentile, S., & Fusco, M. L. (2017). Untreated perinatal paternal depression: Effects on offspring. *Psychiatry research*, *252*, 325–332. https://doi.org/10.1016/j.psychres.2017.02.064

18. Gressier, F., Rotenberg, S., Cazas, O., & Hardy, P. (2015). Postpartum electroconvulsive therapy: a systematic review and case report. *General hospital psychiatry*, *37*(4), 310–314.https://doi.org/10.1016/j.genhosppsych.2015.04.009

19. Habte, B., & Eyaya, M. (2019, September 17). *Suicidal behaviour in postnatal mothers in northwestern Ethiopia: A cross-sectional study*. BMJ open. https://pubmed.ncbi.nlm.nih.gov/31530587/

20. Hyytinen, P., Saisto, T., ja Riekki, T. (2023, February 28) Raskaudenaikaisen ja synnytyksen jälkeisen masennuksen ja ahdistuksen hoito. Duodecim.https://www.terveysportti.fi/apps/dtk/ltk/article/nla00085/search/Raskaudenaikaisen%20ja%20synnytyksen%20j%C3%A4lkeisen%20masennuksen%20ja%20ahdistuksen%20hoito

21. Joffres, M., Jaramillo, A., Dickinson, J., Lewin, G., Pottie, K., Shaw, E., Connor Gorber, S., Tonelli, M., & Canadian Task Force on Preventive Health Care (2013). Recommendations on screening for depression in adults. *CMAJ : Canadian*

Medical Association journal = journal de l'Association medicale canadienne, *185*(9), 775–782. https://doi.org/10.1503/cmaj.130403

22. Kähkönen S., & Holmberg N. (2010) Aikuisten pakko-oireisen häiriön hoito. Duodecim. https://www.duodecimlehti.fi/duo98846
23. Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. Journal of general internal medicine, 16(9), 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x
24. Leger, J., & Letourneau, N. (2015). New mothers and postpartum depression: a narrative review of peer support intervention studies. *Health & social care in the community*, *23*(4), 337–348. https://doi.org/10.1111/hsc.12125
25. McDaid, D., Park, A. L., & Wahlbeck, K. (2019). The Economic Case for the Prevention of Mental Illness. *Annual review of public health*, *40*, 373–389. https://doi.org/10.1146/annurev-publhealth-040617-013629
26. Miller, E. S., Chu, C., Gollan, J., & Gossett, D. R. (2013). *Obsessive-compulsive symptoms during the postpartum period. A prospective cohort.* The Journal of reproductive medicine. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5705036/
27. Mitchell D. M. (2016). Women's use of complementary and alternative medicine in pregnancy: Narratives of transformation. *Complementary therapies in clinical practice*, *23*, 88–93. https://doi.org/10.1016/j.ctcp.2015.05.006
28. Molyneaux, E., Howard, L. M., McGeown, H. R., Karia, A. M., & Trevillion, K. (2014). Antidepressant treatment for postnatal depression. *The Cochrane database of systematic reviews*, *2014*(9), CD002018. https://doi.org/10.1002/14651858.CD002018.pub2
29. *Neuvolatyön lomakkeet - THL*. Terveyden ja hyvinvoinnin laitos. (n.d.). https://thl.fi/aiheet/lapset-nuoret-ja-perheet/sote-palvelut/aitiys-ja-lastenneuvola/neuvolatyon-lomakkeet
30. Peabody, H., & Santoro, K. (2010). *Identifying and treating maternal depression: Strategies & Considerations for Health plans*. Docslib. https://docslib.org/doc/5143132/identifying-and-treating-maternal-depression-strategies-considerations-for-health-plans
31. Perhetupa, A. (2022, September 9). Synnytyksen jälkeiset psyykkiset häiriöt. Dudecim.https://www.terveysportti.fi/apps/dtk/ltk/article/ykt00842?toc=23129
32. Sigurdsson, H. P., Hefner, G., Ben-Omar, N., Köstlbacher, A., Wenzel-Seifert, K., Hiemke, C., & Haen, E. (2015). Steady-state serum concentrations of venlafaxine in patients with late-life depression. Impact of age, sex, and BMI. *Journal of neural*

transmission (Vienna, Austria : 1996), *122*(5), 721–729. https://doi.org/10.1007/s00702-014-1317-9

33. Sit, D., Seltman, H., & Wisner, K. L. (2011, May). *Seasonal effects on depression risk and suicidal symptoms in postpartum women*. Depression and anxiety. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3107602/

34. Slomian, J., Honvo, G., Emonts, P., Reginster, J. Y., & Bruyère, O. (2019). Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. *Women's health (London, England)*, *15*, 1745506519844044. https://doi.org/10.1177/1745506519844044

35. Smit, M., Dolman, K. M., & Honig, A. (2016). Mirtazapine in pregnancy and lactation - A systematic review. *European neuropsychopharmacology: the journal of the European College of Neuropsychopharmacology*, *26*(1), 126–135. https://doi.org/10.1016/j.euroneuro.2015.06.014

36. Sriraman, N. K., Melvin, K., & Meltzer-Brody, S. (2015). ABM Clinical Protocol #18: Use of Antidepressants in Breastfeeding Mothers. *Breastfeeding medicine : the official journal of the Academy of Breastfeeding Medicine*, *10*(6), 290–299. https://doi.org/10.1089/bfm.2015.29002

37. Stewart, D. E., & Vigod, S. (2016). Postpartum Depression. *The New England journal of medicine*, *375*(22), 2177–2186. https://doi.org/10.1056/NEJMcp1607649

38. Trussell, T. M., Ward, W. L., & Conners Edge, N. A. (2018). The Impact of Maternal Depression on Children: A Call for Maternal Depression Screening. *Clinical pediatrics*, *57*(10), 1137–1147. https://doi.org/10.1177/0009922818769450

39. Vogazianos, P., Motrico, E., Domínguez-Salas, S., Christoforou, A., & Hadjigeorgiou, E. (2022). Validation of the generalized anxiety disorder screener (GAD-7) in Cypriot pregnant and postpartum women. *BMC pregnancy and childbirth*, *22*(1), 841. https://doi.org/10.1186/s12884-022-05127-7

40. Walton, G. D., Ross, L. E., Stewart, D. E., Grigoriadis, S., Dennis, C. L., & Vigod, S. (2014). Decisional conflict among women considering antidepressant medication use in pregnancy. *Archives of women's mental health*, *17*(6), 493–501. https://doi.org/10.1007/s00737-014-0448-1

41. Weissman M. M. (2020). Interpersonal Psychotherapy: History and Future. *American journal of psychotherapy*, *73*(1), 3–7. https://doi.org/10.1176/appi.psychotherapy.20190032

42. Werner, E., Miller, M., Osborne, L. M., Kuzava, S., & Monk, C. (2015). Preventing postpartum depression: review and recommendations. *Archives of women's mental health*, *18*(1), 41–60. https://doi.org/10.1007/s00737-014-0475-y

43. Zubaran, C., Schumacher, M., Roxo, M. R., & Foresti, K. (2010). Screening tools for postpartum depression: validity and cultural dimensions. *African journal of psychiatry*, *13*(5), 357–365. https://doi.org/10.4314/ajpsy.v13i5.63101

8 APPENDIX

Edinburgh Postnatal Depression Scale (EPDS)

The questionnaire below is called the Edinburgh Postnatal Depression Scale (EDPS) The EDPS was developed to identify women who may have postpartum depression. Each answer is given a score of 0 to 3. The maximum score is 30.

Please select the answer that comes closest to how you have felt in the past 7 days:

1. I have been able to laugh and see the funny side of things

- As much as I always could
- Not quite so much now
- Not so much now
- Not at all

2. I have looked forward with enjoyment to things

- As much as I ever did
- Rather less than I used to
- Definitely less than I used to
- Hardly at all

3. I have blamed myself unnecessarily when things went wrong

- Yes, most of the time.
- Yes, some of the time.
- Not very often
- No, never.

4. I have been anxious or worried for no good reason

- No, not at all.
- Hardly ever
- Yes, sometimes.
- Yes, very often.

5. I have felt scared or panicky for no very good reason

- Yes, quite a lot.
- Yes, sometimes.
- No, not much.
- No, not at all.

6. Things have been getting on top of me

- Yes, most of the time I haven't been able to cope at all.
- Yes, sometimes I haven't been coping as well as usual.
- No, most of the time I have coped quite well.
- No, I have been coping as well as ever.

7. I have been so unhappy that I have had difficulty sleeping

- Yes, most of the time.
- Yes, sometimes.

- Not very often
- No, not at all.

8. I have felt sad or miserable

- Yes, most of the time.
- Yes, quite often.
- Not very often
- No, not at all.

9. I have been so unhappy that I have been crying

- Yes, most of the time.
- Yes, quite often.
- Only occasionally
- No, never.

10. The thought of harming myself has occurred to me

- Yes, quite often.
- Sometimes
- Hardly ever
- Never

If you have had ANY thoughts of harming yourself or your baby, or you are having hallucinations, please tell your doctor or your midwife immediately

OR GO TO YOUR NEAREST HOSPITAL EMERGENCY ROOM.

TOTAL SCORE

A score of more than 10 suggests minor or major depression may be present. Further evaluation is recommended.

The mood form (Edinburgh postnatal depression scale, EPDS) is intended for use by professionals to identify depression and anxiety symptoms during pregnancy and after childbirth.

Mielialalomake synnytyksen jälkeisen masennuksen tunnistamiseksi (EPDS)

Ole hyvä ja ympyröi vaihtoehto, joka parhaiten vastaa Sinun tuntemuksiasi viimeisen kuluneen viikon aikana, ei vain tämänhetkisiä tuntemuksiasi.

Viimeisten seitsemän päivän aikana

1. Olen pystynyt nauramaan ja näkemään asioiden hauskan puolen

    - Yhtä paljon kuin aina ennenkin
    - En aivan yhtä paljon kuin ennen
    - Selvästi vähemmän kuin ennen
    - En ollenkaan

2. Olen odotellut mielihyvällä tulevia tapahtumia

    - Yhtä paljon kuin aina ennenkin
    - Hiukan vähemmän kuin aikaisemmin
    - Selvästi vähemmän kuin aikaisemmin
    - Tuskin lainkaan

3. Olen syyttänyt tarpeettomasti itseäni, kun asiat ovat menneet vikaan

- Kyllä, useimmiten
- Kyllä, joskus
- En kovin usein
- En koskaan

4. Olen ollut ahdistunut tai huolestunut ilman selvää syytä

- Ei, en ollenkaan
- Tuskin koskaan
- Kyllä, joskus
- Kyllä, hyvin usein

5. Olen ollut peloissani tai hädissäni ilman erityistä selvää syytä

- Kyllä, aika paljon
- Kyllä, joskus
- Ei, en paljonkaan
- Ei, en ollenkaan

6. Asiat kasautuvat päälleni

- Kyllä, useimmiten en ole pystynyt selviytymään niistä ollenkaan
- Kyllä, toisinaan en ole selviytynyt niistä yhtä hyvin kuin tavallisesti
- Ei, useimmiten olen selviytynyt melko hyvin

- Ei, olen selviytynyt niistä yhtä hyvin kuin aina ennenkin

7. Olen ollut niin onneton, että minulla on ollut univaikeuksia

- Kyllä, useimmiten
- Kyllä, toisinaan
- Ei, en kovin usein
- Ei, en ollenkaan

8. Olen tuntenut oloni surulliseksi ja kurjaksi

- Kyllä, useimmiten
- Kyllä, melko usein
- En kovin usein
- Ei, en ollenkaan

9. Olen ollut niin onneton, että olen itkeskellyt

- Kyllä, useimmiten
- Kyllä, melko usein
- Vain silloin tällöin
- Ei, en koskaan

10. Ajatus itseni vahingoittamisesta on tullut mieleeni

- Kyllä, melko usein

- Joskus
- Tuskin koskaan
- Ei koskaan

Kysymyksissä 1, 2 ja 4 vastausvaihtoehdot pisteytetään järjestyksessä ylimmästä alimpaan asteikolla 0–3.

Kysymykset 3 sekä 5–10 ovat käänteisiä ja ne pisteytetään järjestyksessä ylimmästä alimpaan asteikolla 3–0.

EPDS-mittari on validoitu useassa maassa, eikä sitä saa toimipaikkakohtaisesti muuttaa.

Alkuperäinen lähde: Cox JL, Holden JM, Sagovsky R. Detection of Postnatal Depression. Development of the 10-item Edinburgh Postnatal Depression Scale. British Journal of Psychiatry 1987; 150:782-6.