

SYSTEMATIC REVIEW

The Effect of Health Education in Controlling Perinatal Depression: A Systematic Review

Lina Herida Pinem^{1,2}, Tukimin Bin Sansuwito³, Nisha Nambiar³

¹ Faculty of Nursing, Lincoln University College, Wisma Lincoln, No. 12-18, Jalan SS 6/12, 47301 Petaling Jaya, Selangor Darul Ehsan, Malaysia.

² STIKes Mitra Keluarga, Jalan Pengasinan, Rawa semut, Margahayu, Bekasi Timur, Jawa Barat, Indonesia 17113

³ Faculty of Nursing, Lincoln University College, 47301, Petaling Jaya, Selangor, Malaysia

ABSTRACT

Introduction: Perinatal depression occurs in 10-15% of women. One of the causes is a lack of knowledge about the process of pregnancy until the postpartum period which results in birth complications and disrupts the baby's growth and development. **Objective:** This study aims to determine the effectiveness of health education on perinatal depression. **Methods:** This review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement guidelines. A literature search was conducted through four electronic databases: ScienceDirect, Google Scholar, PubMed, and SAGE with inclusion criteria: maternal respondents with perinatal depression, original articles, controlled trials (RCTs) or quasi-experimental methodology, published 2017 to 2023, in English, full text and intervention in the form of education. **Results:** The initial search was 2216 articles and after removing duplicate articles there were 62 articles, and 10 articles met the inclusion criteria and entered the analysis stage. The educational material is almost identical, including preparation for childbirth, care for pregnant women, postpartum mothers, baby care, and maternal mental health. Education methods mostly use digital or online media, such as booklets, videos, and text messages. Based on the results of research, health education is effective in controlling perinatal depression. **Conclusion:** Health education can be used as an intervention to prevent perinatal depression, and implementation in the clinic needs to be integrated with support interventions. *Malaysian Journal of Medicine and Health Sciences* (2025) 21(SUPP3): 197-206. doi:10.47836/mjmhs.21.s3.30

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Corresponding Author:

Ns.Lina Herida Pinem, M.Kep.

Email: lina@stikesmitrakeluarga.ac.id

Tel : +6289634548853

INTRODUCTION

Pregnancy is a physiological process that causes major changes in women's lives. In addition to knowing about changes or developments in pregnancy, pregnant women must also prepare for childbirth, self-care, and baby after delivery. Lack of knowledge since pregnancy about the delivery process, self-care, and the baby after delivery will cause anxiety which can be one of the factors causing depression from pregnancy to postpartum. Based on the results of research on the things that pregnant women fear in facing childbirth, they are afraid of being abandoned and alone, afraid of complications for themselves and their babies, and not being able to cope with pain (1). Anxiety in pregnant women poses a major health risk during the perinatal period. It can hurt the process, outcome, and satisfaction of childbirth and even trigger postpartum depression.

The long-term impact of depression on pregnant women is that children are at high risk of experiencing emotional, behavioral, and cognitive developmental problems (2). Results from a Danish study of 25,000 nulliparous women showed that fear of childbirth during pregnancy, especially late in pregnancy, is associated with a higher risk of emergency cesarean section (2). Lack of knowledge about the process of pregnancy and childbirth is a factor that influences the incidence of prenatal depression. Having prenatal depression also increases the risk of developing postpartum depression 4-6 weeks after delivery. This suggests that intervention in the 3rd trimester to reduce fear and labor pain is very important as an effort to prevent perinatal depression.

The global prevalence of Perinatal depression reached 10-15% (3). Countries such as Malta, Malaysia, Austria, Denmark, and Singapore have had few reports of such incidents. Countries such as Brazil, South Africa, Taiwan, South Korea, Italy, and Costa Rica have reported significant postpartum depression symptoms at 11%. Factors that can increase the risk of perinatal depression are ineffective stress coping because the mother feels

intense tension and fear at the time of delivery. The stress experienced by the mother will affect the mother's psychology. The impacts that occur in the short term are disruption of activities, disruption of relationships with other people such as family and friends, and perhaps the mother will not care for herself and her baby. The impact will occur on the baby, the baby will often cry, and the baby will experience sleep problems and disruption when breastfeeding, apart from that, the impact that will occur on the child will be that he will experience emotional development disorders and have difficulty participating in social activities around him (3).

Lack of knowledge about the process of pregnancy and childbirth is a factor that influences the incidence of prenatal depression. Having prenatal depression also increases the risk of developing postpartum depression 6 weeks after giving birth and lack of knowledge about preparing for the role of motherhood, postpartum care, and newborn care are factors that cause postpartum depression (4). A lack of knowledge about motherhood can lead to feelings of unpreparedness for various challenges, such as physical and emotional changes after childbirth, or the special needs of a child. The inability to cope with these challenges can be a significant source of stress on a mother's mental health and contribute to the development of depression. Lack of understanding of the responsibilities and challenges of parenting will overwhelm mothers handling fussy babies or managing time between work and parenting and can lead to excessive stress and anxiety which are major risk factors for depression (18). In addition, lack of knowledge also causes feelings of incompetence or failure in performing the role of mother. When a mother feels unable to meet expectations or responsibilities as a mother, feels ashamed or afraid of being judged, feels inferior, and hopeless, and tends to withdraw from social support, such as a mother's group or friends. This social isolation can worsen feelings of loneliness and depression (2).

Maternal mortality is significantly increased by perinatal mental health. Suicide is currently the second most common cause of maternal death in the United Kingdom (UK), where 23% of women who pass away during the postnatal period have a mental health illness. The negative effects of perinatal mental health disorders extend beyond the mother; they can also lead to poor pregnancy outcomes, such as low birth weight and early delivery, as well as poor mother-infant interactions that are linked to behavioral, emotional, and cognitive issues in the offspring (5). Maternal mental health severely affects children's and families' lives and has a significant financial and resource impact on health care. This suggests that it is important to find effective interventions to prevent and control perinatal depression.

Various studies have shown that postpartum counseling is effective in reducing depressive symptoms with the

most commonly used approaches being Cognitive Behavior Therapy (CBT) and interpersonal therapy (IPT) to help mothers overcome emotional challenges (19). However, counseling has limitations which include accessibility and implementation is more difficult to access and expensive, and requires trained professionals while education is usually more accessible and can be delivered in a wider format, such as in large groups or online. Some mothers may also feel uncomfortable talking about their problems in a therapy setting. Proper education and support are essential to help mothers understand their roles and overcome the challenges they face, to reduce the risk of depression. Motherhood education includes training programs on the role of mothers as well as techniques for managing stress and building parenting skills, helping mothers understand the emotional and physical changes that occur after childbirth and how to overcome these challenges. Education can function as a preventive measure by providing information to prevent the onset of depression. Studies show that motherhood education, especially when combined with social support, can reduce the risk of perinatal depression by improving self-care and parenting skills. This program serves as a beneficial first step to reduce the risk of perinatal depression. The combination of these two approaches can provide maximum benefits, with education as an initial preventive step and counseling as additional support if needed.

Understanding effective interventions is essential to addressing women's mental health during pregnancy. This Systematic Literature Review was conducted to determine the effectiveness of health education in controlling perinatal depression.

MATERIALS AND METHODS

Design

This research is a systematic review of relevant good articles about health education that can be given to patients with perinatal depression. Articles were selected using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement guidelines. Articles that do not meet the identity criteria inclusion, screening, and eligibility are eliminated (4).

Source

This systematic literature review was searched for articles through four electronic databases: ScienceDirect, Google Scholar, PubMed, and SAGE. The search strategy consisted of four aspects with terms related to a. perinatal period, b. mental health, c. perinatal depression screening, and forms of health education. Every term was looked up in the abstract and title fields. When available, controlled vocabulary terms were employed. The AND and OR Boolean operators are used, in addition to the truncation, phrase search, and proximity operators. The keywords used in this study

are Health Education AND Perinatal OR prenatal OR postpartum OR Pregnancy AND depression.

Formulation of the research question

The clinical question in this study is focused on and articulated using PICO which consists of 4 components: P for the patient (Perinatal), I for intervention (Health Education), C for comparison if relevant (-), and O for the desired clinical outcome (depression) (5). This review aims to answer questions: Does education help in treating perinatal depression?

Eligibility Criteria

To qualify for this study, studies were eligible for inclusion if they met the inclusion criteria: maternal respondents with perinatal depression (prenatal/ either before or postpartum/after childbirth depression), the article had to be an original controlled trial (RCT) or quasi-experimental study methodology, published from 2018 to 2023, in English, and the intervention had to be in the form of education. Exclusion criteria were journals older than 2018, respondent a mother with acute psychosis, and a lifetime history of depression, Conference proceedings, systematic review, protocol, and Pilot study. Based on the inclusion and exclusion criteria, through the process of selecting article titles and abstracts, 10 articles were obtained which entered the analysis stage.

Research Strategy and Data Extraction

To decide which publications may be included in the review, the titles and abstracts of each manuscript were used as screening criteria. To decide whether papers should be included in or excluded from the review, the entire texts of all remaining papers were screened. Ten percent of the publications underwent an independent second evaluation, and disagreements over eligibility were debated and settled among the study team. We looked through the included papers' reference lists to find more pertinent works. The initial search results of the database were 2216 consisting of Pubmed identified 923, Google Scholar 400, Science Direct 100, and SAGE 793. After checking duplicate numbers of 1036, there are 1280 screened. 768 is unclear from the title and 512 is taken for further review. 450 were excluded because they were abstract and depression was not in pregnant or postpartum women, so only 62 met the full-text criteria. The next review issued 42 articles citing topic and design discrepancies so only 10 entered the review stage. The study selection process is shown in the flow diagram (Figure 1).

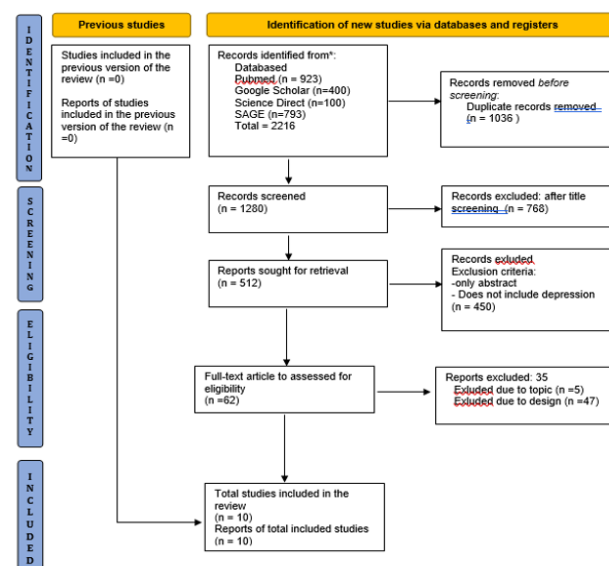


Figure 1: Flowchart of the search and systematic review process

Quality Assessment

Each paper included in the systematic review was assessed according to the quality of the study. Design. The quality of each article was assessed using the Critical Appraisal Skills Program (CASP) Randomized Controlled Trial Standard Checklist assessment which consists of 11 questions. CASP consists of 4 parts, namely: Part A consists of the first three questions for screening questions about the validity of the basic research design and can be answered quickly. If based on the answers in Part A the research design is valid, proceed to Part B to assess whether the study is methodologically sound and whether the assessment is worth continuing by answering the subsequent questions in Parts C and D. Questions were answered with 'Yes', 'No', or 'Don't know'. The prompts under all but one question highlight important issues to consider. The appraisal critical acceptance rate is 80% (6). Critical Appraisal results from 10 studies reviewed more than 80%, can be seen in Table I.

Data Analysis

The data extraction proforma created especially for this evaluation was used to manage data extraction in Microsoft Excel. The following details have been extracted: author, publication year, study goals, environment, sample size, participant demographics, techniques for gathering data, techniques for analyzing data, and findings.

RESULTS

The initial search yielded 2216 articles. After removing duplicate articles, 62 articles were found to be eligible. Out of these, 10 articles met the inclusion criteria for review. All of these articles provide education on controlling postpartum depression. The majority of the articles were published between 2017 and 2020 (70%), while 30% were published in 2022. Among the included articles, 80% used Randomized Controlled Trials (RCTs) methodology, while one article used quasi-experimental methodology and non-randomized methods. The results of the analysis of the 10 included articles are as follows: 1 article was from ScienceDirect, 5 articles were from PubMed, and 4 articles were from Google Search. A search on Sage did not yield any articles that met the inclusion criteria.

Depression screening

The majority (90%) of the articles examined for depression screening before and after education use the Edinburgh Postnatal Depression Scale (EPDS). Score cut-off points from each study vary from 9 (10), 10 (7), 12(7) (8), 14 (9) and one study did not inform.

Content of Educational Materials

The information provided in the 10 articles examined is almost all the same, namely, material that aims to improve the ability of mothers to take care of themselves from pregnancy, childbirth, the postpartum period, and the understanding of newborn behavior and care as well as maternal mental health. The material includes pregnancy consisting of information on physical changes, exercise/activity during pregnancy(10)(11) (11)(12); Childbirth process (12); Infant care consisting of recognition of infant character and behavior, infant nutrition, and vaccines (7). Maternal care after childbirth

consists of the topic of parenting, and physical changes after childbirth (8) (13); Baby's behavior and needs (13); a roadmap to breastfeeding success(13), and Maternal mental health after childbirth (13).

Educational Methods

Based on the results of the analysis of 10 articles, 70% use online and digital methods like Telephone Calls, Share Module by Mobile App, eHealth MomMoodBooster (MMB2) included video and audio recordings, animations, and editable lists in a browser-based web application that responsively adapted to each user's smartphone, tablet, laptop, or desktop device, Essential Coaching for Every Mother postpartum text-message program, The HUG Your Baby intervention. Offline education is carried out in 30% of the ones in the form of home visits, and face-to-face such as training, home visits, and focus group discussions using PowerPoint media. The duration of health education varies greatly, ranging from one week to 4 months. The effectiveness of educational results cannot be concluded from this study, because 2 studies are not effective in reducing maternal depression. Studies that had less significant results in reducing maternal depression used durations of 4 weeks and 12 weeks. Not much different from articles that have significant results in reducing depression, the duration of health education ranging from 1 week to 12 weeks. The educational media used varies greatly. Studies that use online methods mostly use animated videos, web applications, messages via mobile phones, and digital booklets. Education that is directly face-to-face using banners, pamphlets, and brochures. One study shows less significant educational results in reducing depression using brochure media. Detailed explanations of the results of the analysis related to methods, materials, educational time, and media are shown in Table I.

Table 1: Details of the Studies Measuring the Effect of Health Education in Controlling Perinatal Depression

Study & Methodology	Participant Details/ Sample Size	Intervention			Result	Quality/ Critical appraisal Score
		Method	Content	Time/ Duration		
(5) Randomized controlled trial	138 pregnant women, Between 26 and 34 weeks of pregnancy and 96 partners	The intervention included an information booklet, an online video, a prenatal home visit, and a postnatal phone call.	Adapting to the job of a parent, being sensitive and receptive, and taking care of one's own needs, crying patterns, feeding schedules, and sleeping schedules	12 weeks	After giving birth, both groups' levels of distress increased. There were no differences between the groups in terms of secondary outcomes or parenting stress.	81,8
(6) Randomized controlled trial	660 expectant mothers (n intervention=330 and n control=330), 24 weeks of gestation	a psychoeducational mobile app	Along with movies showing potential challenges faced by expectant moms after childbirth, there were articles regarding diet, caring for infants, and administering vaccines.	24 weeks of gestation - 4 weeks postpartum	Confounding factor adjustment resulted in a mean difference in EPDS scores between the two groups of -0.65 (95% CI -1.29 to 0.00; P=.049). It was discovered that there was a correlation between attending TAU classes and higher stress levels and that involvement in the intervention lessened depression.	100
(7) The non-randomized, post-test-control group design	65 participants (education group=31 and control group=34)	The antenatal education program (AEP) was announced through banners and brochures in hospitals	The 1st week: pertaining to pregnancy The 2nd Week: Care During Pregnancy The 3rd Week: Childbirth The 4th Week: Postpartum. It also covered the topics of "maternity blues" and "Postpartum Depression"	4 weeks	The results indicate that there were no significant differences in the EPDS and IFSAC scores between the groups at both the 6th week and the 6th month (p>0.05).	90,9
(8) A randomized clinical trial (RCT) study.	130 pregnant women	Five groups (n = 12) participated in the educational intervention program, which followed the PRECEDE-PROCEED approach. The program ran for four sessions in a row, lasting between 60 and 90 minutes each. Each session was held once a week.	Topics included changes in anatomy and physiology, prenatal and postnatal care, mental health before, during, and after pregnancy, events in pregnancy and labor, feelings and thoughts of mothers, and postpartum issues and their solutions.	each group on a given weekday through four 60-minute sessions	The results of an independent t-test showed a significant difference (p < .05) in the average scores of postpartum depression between the two groups. The level of postpartum depression decreases when this training is implemented during pregnancy, suggesting that the educational intervention is effective in reducing postpartum depression.	90,9
(9) A practical effectiveness study randomly assigned	95 pregnant and 96 postpartum women who met eligibility requirements and were assessed for depression to experimental groups in a practical efficacy research.	routine care/MomMood-Booster2 program (eHealth group)	The PDP and MMB2 are used in the MomMoodBooster2D Perinatal Depression Program. seeking help from others, measuring mood, increasing pleasurable activities to recover life balance, and stopping negative and boosting good ideas. MMB2 was a browser-based web application that featured animations, customizable lists, and audio and video recordings.	The 12-week active treatment phase	The outcomes demonstrated a significant improvement in behavioral activation and self-efficacy and a significant decrease in the intensity of depression, anxiety, tension, and automatic thoughts in both groups. said they would advocate for it	81,8

CONTINUE

Table 1: Details of the Studies Measuring the Effect of Health Education in Controlling Perinatal Depression (CONT.)

Study & Methodology	Intervention			Result	Quality/Critical appraisal Score
	Participant Details/ Sample Size	Method	Content	Time/ Duration	
(10) A randomized, controlled trial with single-blinding	126 mothers The number of participants in each educational. An educational session was also provided for the 63 husbands in the lifestyle education.	During the first training session, moms in the first and second intervention groups were also given a training booklet, which they were advised to read with their husbands.	Health and nutrition, exercise and physical activity, self-perception, and sexual issues were among the topics covered in the lifestyle-based training program throughout pregnancy.	The educational materials were presented in four 60- to 90-min sessions with a 7-day interval (weeks 24–28)	100
(11) Randomized controlled trial	Intervention group= 60 Control group = 60	Prenatal Education About Reducing Labor Stress (PEARLS)	information related to newborn care and maternal mental health	from the time of delivery until six weeks after delivery, with two messages delivered daily during the first two weeks (at 10 a.m. and 5 p.m.) and one message every day (at 10 a.m.) between weeks three through six.	90,9
(12) Randomized controlled trial	The sample size target for this study was 160 (80 in each trial arm)	mums Plus	activities on parenting and emotional health	4 months	90,9
(2) Randomized controlled trial	N= 30 Intervention group: 15, control group: 15	Mindfulness-Based Childbirth and Parenting Program (MBCP)	Childbirth and Parenting program	9 weeks	90,9
(13) A longitudinal quasi-experimental	N= 221 mothers (Control 100, Intervention 121) Pregnant women, after thirty weeks' gestation	After thirty weeks of pregnancy, women were divided into two groups: the control group and the intervention group. At one and three months after giving birth, the participants filled out the Edinburgh Postnatal Depression Scale, the Karitane Parenting Confidence Scale, and three other measures.	The HUG Your Baby program, which teaches how to identify and react to a baby's behavior, was given to the intervention group. The control group was given a pamphlet and consistent prenatal care.	Prenatal and postpartum questionnaires regarding the baby's behavior were given out, as well as at one and three months.	81,8

DISCUSSION

Summary Finding

Knowledge is all information known by individuals about several facts and theories obtained through the five senses. Good knowledge or understanding is the basis of positive attitudes and behaviors or practices to be able to solve the problems faced. Knowledge as a basis for consideration in making decisions, generally affects a person's behavior. (7)

Research states that a person can have the ability to determine and make the right decisions if they have good knowledge of something. Knowledge greatly impacts one's mental status and certainly enriches one's life (12). Knowledge has distinctive features such as ontology (about what), epistemology (how), and for what (axiology). Most well-informed people will behave well have adaptive coping mechanisms and respond not to anxiety. Anxiety is a normal feeling that humans have, to remind us that there is a threatening situation of danger. Anxiety can interfere with activities if anxiety is excessive occurs continuously and cannot be controlled. Anxiety can be caused by various factors, one of which is a lack of knowledge. When anxiety is not managed properly, it can lead to long-term effects such as negative coping mechanisms, stress, depression, and increased suicidal ideation (13)(14).

The purpose of this systematic review is to assess the evidence regarding the effectiveness of educational interventions in managing perinatal depression within the field of health services. The review identified 10 original research articles that investigated various forms of health education for perinatal depression. The goal of this synthesis is to provide a comprehensive understanding of the effectiveness of educational interventions in reducing perinatal depression and supporting the mental health of mothers. The studies included in this review focused on testing the efficacy of health education interventions for pregnant or postpartum women in preventing or managing perinatal depression.

The findings of the review indicate that the professionals involved in developing health education for perinatal health included midwives, community nurses, psychiatric nurses, midwife nurses, psychologists, obstetricians, and gynecologists. Among the 10 articles reviewed, 80% of the educational interventions were carried out by nurses (12)(10)(14)(8)(15)(16)(17)(10). This shows that perinatal depression has become a concern of several professions. Prevention and treatment of perinatal depression will be more effective if there is synergistic cooperation across sectors.

This study found that screening for perinatal depression typically begins in the second trimester, around 24 weeks into the pregnancy. During this time, significant

hormonal changes can impact mood, even though the most dramatic changes tend to occur in the first trimester. Hormone fluctuations throughout pregnancy, especially in the second trimester, can also affect mood. Additionally, the second trimester brings about greater physical changes, such as changes in the stomach, which can lead to increased concerns about childbirth, anxiety about becoming a parent, and the impact of new responsibilities on daily life. Physical changes like weight gain or shifts in body shape can also influence self-esteem and mood (11).

The majority (90%) of the articles reviewed for depression screening before and after education use the Edinburgh Postnatal Depression Scale (EPDS) instrument because it has high sensitivity, and can assess depression that occurs in pregnancy and postpartum. Score cut-off points from each study vary from 9 (10), 10 (7), 12(7)(8) and 14. The most frequently used perinatal depression screening instrument in developed and developing countries is the EPDS because it is suitable for clinical and research applications, short (10 items, has a filling time of less than 5 minutes, can measure pregnancy and postpartum depression, reliable and validity have been proven (19–22).

The educational materials provided are almost the same including preparation for childbirth, care for pregnant women, postpartum women, baby care, and maternal mental health. The majority of educational methods use digital or online, use media in the form of booklets, videos, and text messages, and only one article uses face-to-face education using PowerPoint media. The minimum intervention duration is 1 week, and the maximum is 4 months. The effectiveness of the intervention in reducing the EPDS score or improving the mental health of the mother was not significant in the two studies, whereas 8 studies showed that there was a significant difference in the EPDS score between the intervention and control groups (6). Online methods that use digital media have a more positive effect or significantly reduce perinatal depression. This is because digital media can be accessed at any time without being limited by space and time. Likewise, with the method, it is more significant to provide online education because the use of media is usually more interesting such as videos.

Strengths and limitations of the study

The strength of this study is that all the articles reviewed have an RCT research design. Positive results occur regardless of whether content is focused on assessment and maintenance during antenatal, intrapartum, or postnatal, and regardless of various modalities used (eg face to face teaching, web-based programs, and case-based sketches). This shows that regardless of how the material is delivered or for how long, every professional development education about perinatal depression, not only reduces depression but will increase some

secondary results such as the aspect of self-efficacy (7) (22)(7)(9), the role of care for satisfaction, knowledge, and competency of infant care (23), postpartum functional status (23), mother's welfare, mother's quality of life, and understanding road maps that succeed in breastfeeding (22). The limitations of this study are that study only discussed 10 articles that met the inclusion criteria for review. However, it is important to note that although all intervention studies have several beneficial effects, showing the suitability of some professional development modalities, no research specifically compares different approaches to evaluate results. For this reason, it cannot be concluded with certainty about which strategies are considered most effective in the practice of intervention for perinatal depression.

Practical implications

Preventing perinatal depression through education has several practical implications for both individuals and society. Based on the results of the review of educational and professional development strategies for healthcare providers in managing perinatal depression, there are: First, mental health screening as part of prenatal and postnatal care to help identify risks early. This allows timely intervention, thus preventing the development of perinatal depression. Second, providing easily accessible resources to support the implementation of health education including professional educators, educational materials, and media about physical changes and care during pregnancy, preparation for childbirth, postpartum care, baby care as well as risk factors, symptoms, and treatment of perinatal depression. Third, conduct regular education for pregnant women, fourth, Training for healthcare providers to recognize and address mental health issues during pregnancy and postpartum is crucial. This includes integrating mental health screenings into routine prenatal and postnatal care. Fourth, providing education to couples, families, and communities as a support system, so that they can provide support and seek professional help in the event of perinatal depression in the maternal. Fifth, creating a public discussion space on mental health and public awareness campaigns against stigma and judgment against perinatal depression.

Although it has become clear from existing research that we do not yet know the most effective strategies for professional development in perinatal depression, it is even less clear what content and strategies need to be included. Continuing education and professional development will always be an ongoing effort, but providing health care providers integrated between the roles of nurses, midwives, psychologists, and other health care providers related to perinatal depression content.

It is important that educators are not only experienced in the content but also understand the various modalities to provide the best professional development strategies

that meet the professional standards and scope of practice of a particular provider. Third, in this study, the geographic location of the research was conducted in the Netherlands, Hong Kong, Iran, Chicago, and Canada. Future research studies should be adjusted to explore continuing education in various geographic healthcare contexts to determine how the professional development study approach aligns with the professional standards and scope of practice of a particular provider.

Policy implication

In addition to the need for further research, specific clinical, organizational, and system-level changes are needed to help shift the culture of maternal care settings to optimize the management of perinatal depression. These changes should include ongoing education for healthcare providers. Conducting needs assessments in maternity or mental health units is an important step in identifying gaps. Policies to provide multidisciplinary professional human resources who understand mental health services are needed so that appropriate and expeditious consultation and referral can occur.

Future research

More recent research is needed to support educational approaches that provide content on the assessment and care of mothers with depression during pregnancy, childbirth, and up to one year postpartum. To develop effective interventions for preventing and managing perinatal depression, it is crucial to conduct future research in a collaborative and interdisciplinary manner that involves multiple sectors. This approach will help in identifying sustainable strategies for professional education aimed at addressing perinatal depression effectively. Further research needs to be done on, whether health care providers are most effective and suitable to design and implement the type of continuing education approach.

CONCLUSION

Health education carried out since pregnancy is effective in controlling perinatal depression. Health education is more effective in reducing perinatal depression when done during the pregnancy phase and combined with other interventions such as providing support. Secondary effects of health education can improve self-efficacy, the role of care for satisfaction, competency of infant care, and postpartum functional status.

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