Barriers and Outcomes for Low-income Women with Mental Illness During Post-Partum: A Systematic Review

Sharmelle Bibles, BSN, RN-BC

St. David's School of Nursing, Texas State University

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Faculty: Dr. Amber Littlefield DNP, MEd, FNP-C, PMHNP-BC, CNE

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Abstract

Introduction: Maternal mortality among low-income mothers in the United States (U.S.) is steadily increasing (Eckert, 2020). The risk for developing mental illness is higher among middle- and low-income households, where 1 in 4 women report depression during pregnancy and 1 in 5 report having postpartum depression (Awini et al., 2023). Several research studies have examined social determinants of health (SDOH) impact on mental healtcare treatment among pregnant and post-partum women. However, gaps in the literature suggest that more research is needed to examine mental health outcomes for mothers and babies with untreated mental illness during the post-partum period. This systematic literature review aims to identify barriers to healthcare, patient outcomes, and helpful interventions for post-partum women with mental illness in low-income communities. ***Methods:*** The author extracted data from articles between 2018 and 2023 via CINHAL, Pubmed, and Psychinfo electronic databases. An ancestry search strategy was also used for data collection. Articles selected for this study meet inclusion criteria: (1) primary research articles, (2) published in English, (3) published in a peer-reviewed journal, (4) published within the last five years, and (5) addressed or related to barriers and outcomes for low-income, post-partum women with mental illness. The Rapid Quality Critical Appraisal Tool, adapted by Melnyk and Fineout-Overholt (2019), was used to appraise and evaluate quality of the literature. ***Results***: 1,512 articles were identified, and seven studies met inclusion criteria. Five common themes were identified across studies as barriers for low-income post-partum women in need of mental healthcare: (1) lack of social and community support, (2) lack of transportation and community resources, (3) lack of financial assistance and income, (4) lack of provide education (understanding) and advocacy (5) lack of mental health education. ***Discussion:*** Results suggest a critical need for multiple stakeholders to address the complex

barriers and social determinants of health that result in poor outcomes for low-income post-partum women with mental illness.

Keywords: “low-income,” “post-partum women,” “mental illness,” “access to care barriers,” and “psychiatric post-partum treatment and outcomes.”

Barriers and Outcomes for Low-income Women with Mental Illness During Post-Partum: A Systematic Review

Mental illness is one of the leading causes of maternal death worldwide. Up to 20% of postpartum deaths result from suicide, and attempts often occur by more lethal methods than suicide attempts among women in the general population (Lee et al., 2022). 10–15% of these women have mental illness in the first year postpartum (Branjerdporn et al., 2022). Post-partum mental illness is a global health concern because a broad range of disorders, from anxiety, psychosis, bipolar disorder, post-partum depression, and eating disorders, can have catastrophic implications on the mother, her baby, and the family (Branjerdporn et al., 2022). Current literature effectively examines barriers to mental healthcare among women in low-income communities with post-partum mental illness. However, persistent gaps in the literature suggest that more research is needed to examine mental health outcomes for mothers and babies in the post-partum period when mental illness remains untreated. This systematic literature review aims to identify barriers to healthcare, patient outcomes, and helpful interventions for post-partum women with mental illness in low-income communities.

Background & Significance

Women in low-income communities often fail to follow up with their primary care provider (PCP) post-partum, leading to increased mortality and long-term health complications (Howell et al., 2020). In addition, SDOH, such as food insecurity, low socioeconomic status, lack of transportation, lack of childcare, lack of access to care, health insurance issues, difficulty navigating the healthcare system, and housing issues, can have unfavorable health outcomes for mother and baby (Borghi et al., 2023). According to Kim et al. (2019), 29.4 % of post-partum

women in low-income communities are more likely to receive inadequate prenatal healthcare and develop adverse pregnancy complications due to sociodemographic barriers. Meaningful consideration from the government and community agencies should focus on bridging the gap between health inequities and access to care for this population (Borghi et al., 2023).

Review of the Literature

According to Simhi and Yoselis (2022), low socioeconomic status creates barriers (e.g., food insecurity, housing, or transportation issues) that limit access to care. In this study, a targeted review of the literature was conducted to identify SDOH and its correlation with the onset of clinical depression among pregnant women. The results of this study revealed broad themes and gaps in the literature that are needed to address SDOH's impact on prenatal and postnatal mental illness and outcomes (Simhi & Yoswlia, 2022). Simhi and Yoselis (2022) recommend that government and community leaders acknowledge SDOH among low-income mothers during pregnancy and postpartum as a risk factor for the development of mental illness.

Howell et al. (2020) examined the relationship between the government's Medicaid payor system for pregnant and postpartum women. Through this study, educational interventions were designed to improve post-partum follow-up for low-income women in collaboration with funding assistance provided through a cost-sharing partnership. This study addressed SDOH that low-income women encounter post-partum, such as transportation needs, lack of continuity of care, lack of mental health resources, and lack of patient education (Howell et al., 2020). The results of this study highlighted the value of a healthcare-payor partnership for low-income mothers with mental illness. The Medicaid program improved compliance with post-partum follow-up and compliance by 67% (Howell et al., 2020). These follow-up rates are consistent

with the recommended 90 days after delivery standards set by the American College of Obstetricians and Gynecologists (ACOG) (Howell et al., 2020).

A cohort study by Steenland and Trivedi (2023) examined the impact of Medicaid expansion to cover the cost of prescription anti-depressants beyond 90 days post-partum. The results of this study revealed that prior to the Medicaid expansion, 32.7% of women filled an antidepressant prescription in the later postpartum period and had an average of 23 days of antidepressant prescription supply (Steeland & Trivedi, 2023). When Medicaid coverage was expanded to 6 months post-partum, the continuity of antidepressant treatment increased by 20.5%, and the number of days with antidepressant supply in the later postpartum period increased by 14.1 days (Steeland & Trivedi, 2023).

To address these health inequities, the World Health Organization (WHO) established the Commission on Social Determinants of Health Framework (CSDH) (Braveman, 2023). The American College of Obstetricians and Gynecologists (ACOG) recommends a collaborative effort be established among care managers (e.g., licensed clinical social workers), routine screening for mental illness for high-risk patients, and psychiatric access programs to help bridge the gap in mental healthcare access for mothers in low-income communities (Miller et al., 2023).

Purpose and Clinical Question

Low-income women with mental illness are at greater risk of maternal death by suicide, adverse pregnancy outcomes, and impaired mother-baby bonding (Branjerdporn et al., 2022; Lee et al., 2022). Therefore, the need for increased advocacy and a multidisciplinary approach to improve patient outcomes and reduce barriers to mental healthcare is imperative (Borghi et al., 2023). Additional research is needed to explore the gaps in the literature related to long-term health outcomes for mothers and babies living with mental illness in low-income communities.

The purpose of this systematic literature review was to examine the barriers to mental healthcare, patient outcomes, and viable interventions for low-income, post-partum women with mental illness. The research question guiding this review was: What are the barriers and outcomes to care that women with mental illness living in low-income communities experience in the post-partum period?

Conceptual Framework

The conceptual framework that guided this systematic literature review was the CSDH framework established by the WHO (Braveman, 2023). The CSDH framework was established to examine social, economic, and political factors that determine the health status of people in connection with social hierarchy (Braveman, 2023). The CSDH framework considers three main theories practiced in social epidemiology (e.g., psychosocial, social production of disease, and the political economy of health and the eco-social theory). Each approach emphasizes that a person's socioeconomic status significantly influences social determinants of health inequality (Braveman, 2023). This systematic literature review integrates the theories of the CSDH framework by examining psychosocial disabilities, mental health outcomes, and community and societal barriers for post-partum women living with mental illness in disadvantaged communities. To perpetuate change, multilevel stakeholders must use this framework to advocate for increased governmental buy-in and financial assistance, increased provider education, and collaborative community support.

Methods

Project Design

The design of this study is a systematic review of literature. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist guided the research and literature review method, and the CSDH framework was used as a guide to examine social, economic, and political factors presented in literature that determine the health status of women with mental illness during post-partum (Braveman, 2023). The purpose of this systematic literature review was to evaluate barriers to mental health care for low-income women with mental illness during post-partum.

Search Strategy

Electronic databases were used to search literature published between 2018 and 2023 using and the following search terms, “low-income,” “post-partum women,” “mental illness,” “access to care barriers,” and “psychiatric post-partum treatment and outcomes.” In addition to using electronic databases, ancestry searching was used to find pertinent articles. Studies that were included met the following criteria: (1) primary research articles, (2) published in English, (3) published within the last five years, (4) published in a peer-reviewed journal, and (5) addressed or related to barriers and outcomes for low-income, post-partum women with mental illness. The Rapid Quality Critical Appraisal Tool, adapted by Melnyk and Fineout-Overholt (2019), was used to appraise and evaluate the quality of the literature. A 5 out of 10 cut-off score was used for inclusion in the systematic literature review.

Selection Process

The PRISMA flow diagram was used to display the stages of article screening to determine the final sample of articles for this systematic literature review. The flow diagram (see

Figure 1) illustrates the number of studies excluded at each screening stage. One investigator independently screened the title, then the abstract, then a full review of all research studies for applicable inclusion criteria (i.e., primary research articles published in English, published in a peer-reviewed journal, published within the last five years, and addressed or related to barriers and outcomes for low-income, post-partum women with mental illness). An endnote reference manager was used to collect and organize the studies. The Melnyk and Fineout-Overholt (2019) Rapid Critical Appraisal Checklist were used to evaluate the validity, reliability, and applicability of each study for this systematic literature review. The cut-off score of 3 out of 10 was assigned for inclusion.

Synthesis Method

An evidence synthesis table, (see Table 1), was used to extract data, and analyze articles. This evidence synthesis table demonstrated common themes among studies related to barriers in accessing mental healthcare. In addition, gaps in literature highlighted the need for further research to address the outcomes and quality of care for mother and babies in low-income communities living with untreated mental illness (Melnyk & Fineout-Overholt, 2019). The evidence synthesis table assisted me with consolidating key interventions and recommendations to assist this population and improve health outcomes (Melnyk & Fineout-Overholt, 2019).

Results

Search Results

A total of 1,512 articles were identified. After removing 882 duplicates, 252 records were marked as ineligible, and 120 were removed for other reasons. Two hundred fifty-eight articles were included in the initial screening stage of this literature review. Several articles were excluded because they did not address post-partum mental illness or mental health

outcomes. After initial screening, exclusion, and retrieval, seven articles met all inclusion criteria needed for incorporation into this systematic literature review.

Characteristics of Studies

The sample consisted of 1 quasi-experimental study (Howell et al., 2020), one correlational study (Katz et al., 2018), and one cross-sectional qualitative study (Branjerdporn et al., 2022) Two randomized controlled trials (Dodge et al., 2019; Urizar et al., 2019) and two semi-structured qualitative studies (Canty et al., 2019; Borghi et al, 2022) were included in this systematic literature review (see Table 1).

The purposes of the studies varied. Two studies examined pregnant and post-partum women's perspectives of homelessness, low socioeconomic status, and the impact of material hardship on low-income pregnant women (Borghi et al., 2022 & (Katz, 2018). Three studies evaluated the health systems model of care, continuity of care, and payor-provider relationship on health outcomes for low-income, post-partum women with mental illness (Branjerdporn et al., 2022; Dodge et al., 2019; Howell et al., 2020). Two studies addressed facilitators and barriers of postpartum healthcare and the effects that prenatal cognitive behavioral stress management (CBSM) can have on preventing post-partum mental illness (Canty et al., 2019 & Urizar et al., 2019). Data collection methods varied across studies consisting of semi-structered face-to-face interviews, focus group interviews, telephone interviews, correlational analysis, randomized group intervention and sample collection (Borghi, 2023; Canty, 2019; Branjerdporn, 2022; Dodge, 2019; Howell, 2020; Katz, 2018; & Urizar, 2019). The Rapid Quality Critical Appraisal Tool, adapted by Melnyk and Fineout-Overholt (2019), was used to appraise and evaluate the quality of the literature. A 5 out of 10 cut-off score was used for inclusion in the systematic literature review. Sample sizes ranged

between 10 to 1,058 pregnant and post-partum women and 26 healthcare professionals. The total sample size across studies included 1,084 participants.

Synthesis Across Studies

The methods described by Whittemore and Knaf (2005) were utilized to identify common themes across studies. Five themes were identified across each study. The themes identified revealed social determinants of health (SDOH) for low-income, post-partum women that hinder access to care or increase the risk of developing mental illness (Braverman, 2023).

Theme 1: Lack of Social and Community Support

Lack of social and community support was a resonating theme across studies. Having a solid social support system was seen as a fundamental component of sustaining physical and mental health (Borghi et al., 2022; Branjerdporn et al., 2022; Canty et al., 2019; Dodge et al., 2019; Howell et al., 2020; Katz et al., 2018 & Urizat et al., 2019). Women expressed social support challenges such as "When you have children, and you do not have anyone to help you to take care of them, it is not easy to live" (Borghi et al., 2022, p. 3). Support from allied health professionals and the community was also acknowledged as having a positive impact on the women's mental health. Participants mentioned that being informed by the provider about mental illness and having the opportunity to ask questions was described as helpful (Borghi et al., 2022; Brandjerporn et al., 2022). Low-income women in this population commonly expressed that lack of material support (e.g., financial, child care, and emotional) affected their ability to obtain care. For example, several mothers reported that competing priorities (e.g., caring for family members and meeting basic daily needs such as food and

housing) resulted in the need to care for others and not themselves (Borghi et al., 2022; Brandjerporn et al., 2022).

Maternal stigma about post-partum mental illness was conveyed as a sociocultural barrier among low-income minorities (Dodge et al., 2019; Canty et al., 2019). Mothers reported feeling guilt for "burdening family members or friends" when requesting support. They also expressed hesitancy with verbalizing symptoms of mental illness to family members for fear of being judged and having their symptoms "normalized" (Canty et al., 2019, p. 141). Some mothers also reported stigma and shame when discussing their depressive symptoms with a healthcare provider for fear of being reported to Child Protective Services (CPS) (Canty et al., 2019). Lack of community connections and barriers to accessing mental healthcare for low-income women were reported as psychosocial stressors during pregnancy and post-partum (Dodge et al., 2019; Canty et al., 2019 & Howell et al., 2020; Katz, 2018; & Urizar).

Theme 2: Transportation & Community Resources

Having access to healthcare was listed among participants as a priority across studies (Borghi et al., 2022; Branjerdporn et al., 2022; Canty et al., 2019; Dodge et al., 2019; Howell et al., 2020; Katz et al., 2018 & Urizat et al., 2019). Sociodemographic barriers to accessing healthcare included limited access to transport, inability to afford private or public transport, residing in rural areas and long distances to accessing mental healthcare, and low utilization of post-partum services due to lack of insurance coverage (Canty et al., 2019; Howell et al., 2020; Katz et al., 2020). Two studies addressed the significance of an integrated healthcare system consisting of visiting home nurses, social workers, and healthcare-payor relationships in

addressing access to care barriers and SDOH for low-income women postpartum (Dodge et al., 2019; Howell et al., 2020).

Theme 3: Financial Assistance & Income

The third most common theme across studies was lack of income and limited financial resources. In four of the seven studies, researchers identified income level and insurance barriers as promoting risk for the development of mental illness for pregnant and post-partum mothers in low-income communities (Borghi et al., 2022; Howell et al., 2020; Katz et al., 2018 & Urizar et al., 2019). Howell et al. (2022) highlighted the difficulties that low-income women in the U.S. encounter when attempting to obtain health insurance, "lack of stakeholder interest, patient education, care coordination, clinician and staff education, and community and medical resources" (p. 217). These challenges are notably more difficult for pregnant and postpartum women with low income due to difficulty navigating large healthcare systems, complex administrative processes, and limited health coverage options (Borghi, 2022). Some women report stress and anxiety related to difficulty and inability to obtain coverage. For example, one participant stated, “I do not have health insurance to treat me. I do not know how it works, and I do not know how to apply for it. So, I feel anxiety because of this and because of my health status” (Borghi et al., 2022, p. 17). Urizar et al. (2019) stated that “Low-income and ethnic minority women experience unique stressors (e.g., unemployment, racial discrimination) that place them at greater risk for prenatal health complications and poor birth outcome (p. 175).

Theme 4: Provider Education & Advocacy

Provider advocacy and education were reported as crucial elements of care in addressing barriers to mental health stigma and maternal health outcomes for women and children in this population. Three of the seven studies addressed the impact of provider

advocacy and focused intervention in caring for this population (Borghi et al., 2022; Branjerdporn et al., 2022; Canty, 2019). Brandjerdporn et al. (2022) examined the impact of provider intervention on mother-baby relationship and maternal mental health. Based on the individual acuity level for mental illness, the person's interventions were adapted to her current acuity level or situation. For example, a mother who was post-partun and diagnosed with OCD traits displayed symptoms of apprehensive when interacting with her newborn baby. She demonstrated compulsive, repetitive behaviors during the baby's bath time. In response, healthcare workers assisted with bathing so the mother did not feel alone and compelled to complete repetitive tasks (p. 7). Also, reassurance from the provider regarding not feeling judged for symptoms of mental illness was reported as empowering for mothers (Canty, 2019, p. 141).

Theme 5: Mental Health Education

Developing the mother-baby relationship was identified as an essential dimension of care fostered through patient education (Banjerdporn et al., 2022; Dodge et al., 2019 & Howell et al., 2020). Mothers communicated difficulty forming an attachment to their newborn baby due to their mental illness (Branjerdporn et al., 2022). Health professionals should incorporate education about community resources, the importance of post-partum follow-up, and signs of maternal mental illness to reduce rates of post-partum depression, anxiety, and child maltreatment (Dodge et al., 2019).

Additional Findings

Several studies briefly examined outcomes associated with mental healthcare for low-income post-partum women. In two studies, lack of transportation was associated with poor maternal health outcomes due to the inability to maintain follow-up care and treatment

(Brandjerporn et al., 2022; Howell et al., 2020). In-home-care visits by licensed Registered Nurses (RN) connected mothers in low-income communities with vital mental health resources. In addition, in-home care substantially reduced the number of ER visits for mental health reasons and child abuse among this population. Prior to intervention, outcomes for women and children in low-income communities with mental illness resulted in high rates of non-compliance and CPS investigations (Dodge et al., 2019). Current literature examines the barriers that post-partum women with mental illness encounter when accessing care. However, there is currently a significant gap in the literature regarding the complex needs of post-partum low-income women with mental illness and long-term outcomes for mother and baby (Howell et al., 2020).

Discussion

This systematic literature review examined the barriers and outcomes to mental health care for low-income women during post-partum. Overall, the results across studies revealed that low-income women with mental illness during post-partum identify limited healthcare access, lack of resources and information about treatment, complex healthcare systems, maternal stigma, healthcare coverage issues, lack of transportation, little or no social support, issues with financial and insurance coverage, lack of provider education and advocacy, and limited knowledge about mental health as barriers to care (Borghi et al., 2022; Branjerdporn et al., 2022; Canty et al., 2019; Dodge et al., 2019; Howell et al., 2020; Katz et al., 2018 & Urizat et al., 2019). Primary stressors across studies include finances, childcare responsibilities, lack of social and community support, and personal concern for physical and mental health (Borghi et al., 2023; Canty et al., 2019; Howell et al., 2020; Katz et al., 2018 & Urizar et al., 2019).

The Commission on Social Determinants of Health Framework (CSDH) addresses key elements and themes that emerged in this systematic literature review. Themes in this study that correlate with the CSDH framework include social, economic, and political barriers (i.e., lack of social and community support, lack of resources, and limited insurance options) (Braveman, 2023). The overall results of this study reveal that women in this population encounter significant socioeconomic inconveniences that hinder access to care or increase their risk of developing mental illness.

Recommendations from Findings

Across studies, recommendations are made for a multidisciplinary approach in healthcare (i.e., healthcare system, funding source, healthcare providers) to improve access to services focused on managing this population's complex health and social needs (Borghi, 2022). On a system level, Branjerdporn et al. (2022) identified key interventions and philosophies clinicians should implement when caring for women with significant mental health issues and their babies. This study displayed the importance of provider care and involvement in addressing maternal mental health. The key takeaway of this research study was that each clinician plays a significant part in providing holistic care to promote full recovery and optimal outcomes for mother and baby (Branjerdporn et al., 2022).

Two studies provided recommendations for addressing maternal stigma about mental illness and barriers to postpartum follow-up (Canty et al., 2019; Howell et al., 2020). Providers can help remove barriers affecting postpartum nonattendance by destigmatizing post-partum mental illness through patient education and mental health advocacy (Canty et al., 2019). Recommendations from Howell et al. (2020) adovcates for tmultiple stakeholder involvement to increase funding for low-income pregnant and post-partum women to improve

access to care and post-partum compliance (Howell et al., 2020). Provider understanding about the impact of poverty on the mental health outcomes for pregnant and postpartum are key recommendations made in two studies (Katz et al., 2018 & Urizar et al., 2019).

Limitations

Limitations to consider in this systematic literature review are that more experimental studies are needed to build on the findings of the qualitative studies included in this research. Additional, research will support the need for resources and stakeholder buy-in to address the issues that impact this population. Another limitation of this systematic review is that small community samples were used in a few studies. A small sample size may limit relevant variables that help identify maternal barriers and outcomes in larger communities (Borghi et al., 2022 & Urizar et al., 2019).

Conclusions and Implications

Overall, the themes identified across these studies suggest a critical need for multiple stakeholders to address the complex barriers and social determinants of health that result in poor outcomes for low-income post-partum women with mental illness. Resonating themes across studies indicate that improvement in provider-patient communication is needed to further educate at-risk mothers about post-partum mental illness. In addition, more support from community agencies and financial services is crucial to ensuring post-partum compliance and follow-up. Also, several studies focused on providing culturally sensitive care to address social, economic, and social-cultural barriers that may interfere with mental health treatment or place a mother at risk for developing mental illness. Need to address implications for future research, quality improvement projects, and policy change.

Figure 1

Flow Diagram of Systematic Review Process

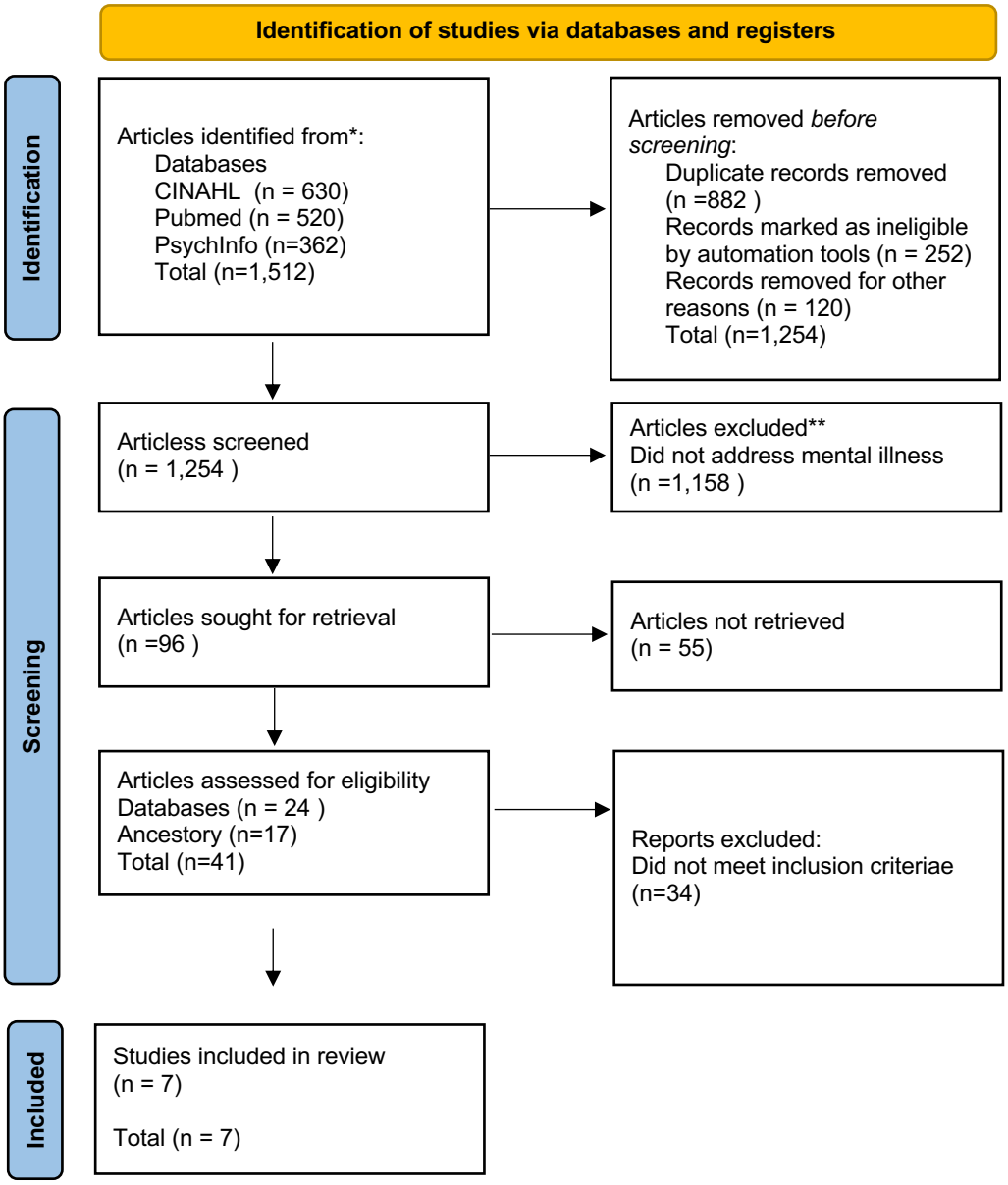

Table 1

Evidence Synthesis Table

Author	Purpose	Frame - work	Design	Sample/ Setting	Methods	Findings	Quality Appraisal/ Limitations	Conclusions/ Application
Borghi, 2022	Prioritize women's perspectives on the impact of unhoused living on mental health during pregnancy and the postpartum period	None	Qualitative Descriptive	26 people, women 18y/or older, who were homeless & pregnant or woman in the post-partum period (6 weeks post childbirth) were included in study. social	COREQ were used to detail research methods and results. Data was collected through one-time individual semi-structured interviews .	Three main themes were identified as barriers: 1)homeless ness impact on overall health. 2) social and professional support improvedhe alth during pregnancy and the postpartum 3) Coummunit y support aided in compliance	**Quality Appraisal Rating** (5/10) **Limitations** Single meetings and one-to-one semi-structured interviews limit perceptual influence and themes related to pregnant and post-partum theme exploration in this population.	This study highlights the need for more community assistance and support in providing financial resources and intervention to prevent advers outcomes associated with low-income, homelessness, mental illnesss and pregnancy.

Author	Purpose	Frame - work	Design	Sample/ Setting	Methods	Findings	Quality Appraisal/ Limitations	Conclusions/ Application
Branjerdporn, 2022	Explore the model of care and philosophy of care used to support core capabilities in providing care to mothers with severe mental illness within psychiatric inpatient mother-baby-units	None	Cross-sectional, Qualitative, Grounded Theory	26 Multi-disciplinary staff working at Mother-Baby Unit 10 nursing staff (38.46%); 10 allied health staff (38.46%); 3 medical staff (11.54%) and 3 managerial staff (11.54%). Psychiatric inpatient-Mother/Baby Unit in Queensland, Australia	Face-to-face, semi-structured interviews were conducted with staff. Individual and focus group interviews were completed in a private room during a work shift of the staff.	The LMC is a six-dimensional model based on participants' views. Including: mental health care, physical health care, looking after baby, mother-baby relationship, fostering relationships, and community support identified as priorities of care among clinicians.	**Quality Appraisal Rating** (7/10) **Limitations** Only one mother-baby unit's staff were examined. Bias may exist based on varying levels due to the predominant individual interviews compared to focus group interviews.	This study focuses on improving provider understanding of the psychological, and social characteristics of both the mother and the baby to foster positive health outcomes. This Framework is also congruent with the World Health Organization International Classification of Functioning, Disability and Health as components of health condition (e.g., mother's mental health care).

Author	Purpose	Frame - work	Design	Sample/ Setting	Methods	Findings	Quality Appraisal/ Limitations	Conclusions/ Application
Canty, 2019	Assess mothers' perspectives on barriers to and facilitators of follow-up of at-risk postpartum depression (PPD) screening test results	None	Semi-structured-Qualitative Research Study	17 mothers Mean age=29; 90% had partners, 23% non-Hispanic white; 77% other races. Women who were moderate or high-risk on the at the 2-week or 2-month follow up were included. Primary care clinic in Portland, Oregon	Thirty-three mothers were recruited via retrospective review of 543 infant charts. 17 telephone interviews conducted asking what? Data was analyzed using thematic analysis.	Qualitative themes revealed that the most significant barrier was mothers' concerns for community mental health stigma. Also Lack of material and emotional support. Lack of childcare, access to transportation, and lack of resources.	**Quality Appraisal Rating** (6/10) **Limitations** This study had only 17 participants and therefore may not be as generalizable. Only mothers who tested as at risk of PPD were included. Mothers who did not test at risk may still have had PPD and may have experienced even greater barriers	It is imperataive that providers educate mother's at risk for developing mental illness and provide reassurance that they are not alone and should not feel judgment for their symptoms. Doing this may empower more mothers seek access for mental healthcare. The findings of this study show that when providers recognize the symptoms of PPD and not normalize the symptoms, patient's are more willing to seek treatment

Author	Purpose	Frame - work	Design	Sample/ Setting	Methods	Findings	Quality Appraisal/ Limitations	Conclusions/ Application
Dodge, 2019	Test implementation and impact of – postnatal FCP home visitation program to support parenting and infant healthy development and connect to community resources.	None	Randomized Controlled Trial	936 Consecutive residential births at Duke University Hospital	Births were randomly assigned to be enrolled in the Family Connections Program (FCP) or proceed with follow up treatment as usual.	Increased compliance with health care (90.3%) and utilizationof community resources (42%) Decreased rates of CPS investigations (44%)	**Quality Appraisal Rating** (7/10) **Limitations** Study was conducted in one community.	The primary outcome of this study revealed that with nursing home visits to close the gap in access to care rates of healthcare utilization and comopliance increase and child protective services investigations for maltreatment decrease. Briding the barriuer to care can mitigate risk that occur as a result of post-partum mental illness.
Howell, 2020	Increase the number of low-income, high-risk	None	The authors conducted an evaluation of an	Setting: New York City. 363 mothers 8	The program combined education during the	Timely post-partum visit rate for mothers continuousl	**Quality Appraisal Rating** (9/10)	This study reveals that a Medicaid payor partnership improves access

Author	Purpose	Frame - work	Design	Sample/ Setting	Methods	Findings	Quality Appraisal/ Limitations	Conclusions/ Application
	women who have a timely postpartum care visits through enrollment in a Medicaid and HSPP		evidence-based educational intervention	years and older had at least 1 of the following: gestational diabetes, HTN, positive screen for depres-sion, late registration for prenatalcare (>20 weeks), or residing in high risk neighborhood.	postpartum hospital stay, a call at one to two weeks after delivery, 3 to 12 additional calls depending on patient needs, and written educational materials.	y enrolled control group score (67%) [243/363] and 56% [407/726], P < .001).	**Limitations** Small financial incentives ($10) in the form of enhanced payments for completed postpartum visits by the payer were rolled out 12 months following the implementation of the intervention. Patients received round-trip public transportation and incentives ($10) for attending their	to care and post-partum follow up of low-income women with mental illness.

Author	Purpose	Frame - work	Design	Sample/ Setting	Methods	Findings	Quality Appraisal/ Limitations	Conclusions/ Application
							postpartum visit.	
Katz, 2018	Examine rates of material hardship among pregnant women seeking prenatal care and the relationships of both income and material hardship with depression and anxiety during pregnancy.	Empirical framework Social determinants of health	Correlational Study	892 participants from the primarily low-income patients in upstate New York from outpatient OBGYN clinics	Correlational analyses were conducted to examine associations among depression, anxiety, income, material hardship, and demographic variables. Depression was assessed with PHQ-9 Anxiety was assessed with GAD-7	(56%) expressed material hardship (difficulties meeting basic needs such as for food, transportation, or stable housing) 19% depression from material hardship 17 % anxiety from material hardship	**Quality Appraisal Rating** (8/10) **Limitations** Pregnancy may create or exacerbate perceptions of unmet material needs. The current results may be limited by lack of assessment of potentially relevant variables such as history of depression, duration of time at the	This study reveals the emotional, social, and soceiodemographic impact that material hardship can have on the development of mental illness for women in low-income communities. Material hardship promotes risk for poor maternal mental health and child well-being. Healthcare providers should have an understanding of SDOH that impact the mental health of this population.

Author	Purpose	Frame - work	Design	Sample/ Setting	Methods	Findings	Quality Appraisal/ Limitations	Conclusions/ Application
							annual income level, and gestational age.	
Urizar, 2019	Examine the effects of a prenatal CBSM intervention on reduction in perceived stress and regulation during pregnancy and the early postpartum period	None	Randomized Controlled Trial	100 low-income pregnant women with low or high anxiety during pregnancy ;at least 18 years of age and at 17 weeks gestation, 71 Hispanic % in southern California	Participants were randomized (stratified by anxiety) to either an eight-week CBSM group intervention (*n* = 55) or a control group (*n* = 45). Researchers collected seven salivary cortisol samples	(63%) of participants who had CBSM showed decreased levels of stress 56% vs. (20%) who did not have CBSM and demonstrated high levels of stress.	**Quality Appraisal Rating** (7/10) **Limitations** Study included participants who were able to attend CBSM intervention , therefore results may not be generalized to women with competing demands (e,g., lack of transportati	This study highligths the impact the social, emotional, and financial stress can have on maternal health. Low-income mothers are at increased riks of having has adverse birth outcomes from psychosocial stressors such as poverty, lack of education, being a single parent, and lack of resources.

Author	Purpose	Frame - work	Design	Sample/ Setting	Methods	Findings	Quality Appraisal/ Limitations	Conclusions/ Application
					(four baseline, the 1st trimester; (< 17 weeks of gestation), the 2nd trimester, 3rd trimester and at three months post-partum.		on, lack of childcare, work).	

Abbreviations: CBSM=Cognitive behavioral stress management; COREQ=Consolidated criteria for reporting qualitative research; CPS=Child protective services; DM=Diabetes Mellitus; DOHM= Department of Mental Health and Hygiene; EPDS= Edinburgh Postpartum Depression Scale; EDS=Electronic Database System; FC=Family Connects Program; GAD-7= Generalized Anxiety Disorder scale 7; GD=Gestational Diabetes; GT=Grounded theory; HEDIS=(i.e., a visit with an obstetrics or primary care clinician between 21 and 56 days after delivery; HSPP=healthcare system partnership program; HTN=Hypertensions; IA=Impact analysis; IP=Intervention penetration; LMC =Lavender Model of Care; LMC=Lavender Care Framework; PPD=Postpartum depression; NYC= New Yor City; PC=Postpartum Care; PHQ-9= Patient Health Questionnaire-9; PDS=Positive Depression Screening, SDOH=Social Determinants of Health.

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