Measures Clinicians in the Urgent and Emergent Settings Can Use to Increase Psychosocial Support and Patient Satisfaction After Miscarriage: An Integrative Review

An Integrative Review

Submitted to the

Faculty of Liberty University

In partial fulfillment of

The requirements for the degree

Of Doctor of Nursing Practice

By

Ashley Luanne Kay Brown

Liberty University

Lynchburg, VA

June, 2023

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Scholarly Project Chair Approval:

Dr. Vickie Moore, RN, DNP, FNP-C Date

Abstract

In the United States, about one in four women will experience miscarriage and pregnancy loss sometime in their life. Miscarriage is a common and distressing event with significant physical and emotional consequences for women. Prompt and appropriate psychosocial support during the acute phase of miscarriage is essential for the well-being of patients and can positively impact their long-term recovery. However, urgent and emergent care settings often lack standardized protocols and guidelines for addressing the psychosocial needs of women who experience a miscarriage. The purpose of this integrative review is to provide clinicians in urgent and emergency settings with the tools to help women experiencing miscarriage with comprehensive psychosocial care. This integrative review examines the measures that clinicians in urgent and emergent settings can employ to enhance psychosocial support and patient satisfaction following a miscarriage. This review integrates evidence from various sources, including scholarly articles, systematic reviews, and clinical guidelines, to identify effective measures that clinicians can employ to improve psychosocial support and patient satisfaction after miscarriage. Clinical guidelines need to be better developed to focus on psychosocial aspects of miscarriage care. Additionally, further research is needed to evaluate the effectiveness and implementation of these measures in different healthcare settings.

Keywords: miscarriage, miscarriage in the emergency setting, miscarriage aftercare emotional needs in miscarriage, psychosocial miscarriage, follow-up for miscarriage

Dedication

I would like to begin by dedicating this integrative review to my husband, Kory, my daughter, Sophia, and my soon-to-be-born son, Luke. Kory, because of your sacrifice, sleepless nights, and constant encouragement, I was able to get to where I am today. I thank God that you always pushed me to complete my doctorate even in the midst of a pandemic and becoming parents. Your ambition and strength have inspired me since the day I met you, and I am beyond grateful to have you beside me as my husband and father to our children.

I would also like to dedicate this integrative review to my family and friends who have made this journey possible, specifically my dear siblings and siblings-in-law who lost children from miscarriage in the past few years. It is due to them (plus those I encountered in the emergency room as a nurse who suffered from miscarriage) that I set out to review ways to better help families who experience such great loss in a holistic manner. I know my sweet nieces/nephews are in heaven and we will be reunited soon.

Acknowledgments

It is with great joy and admiration that I would like to give a sincere note of gratitude to my project chair, Dr. Vickie Moore, who has meticulously mentored me throughout my integrative review. Dr. Moore has been a constant source of encouragement, counsel, and support throughout this entire process. Her leadership and mentorship have been instrumental in the successful completion of this project, and I am sincerely grateful for her invaluable contributions. I am fully aware that without her, this grand feat would not have been possible. Once again, I extend my heartfelt appreciation to Dr. Moore for her unwavering dedication and support.

Table of Contents

List of Abbreviations

American College of Obstetricians and Gynecologists (ACOG)

Edinburgh Postnatal Depression Scale (EPDS)

Emergency Department (ED)

Dilatation and Curettage (D&C)

Doctor of Nursing Practice (DNP)

Human Chorionic Gonadotropin (HCG)

Institutional Review Board (IRB)

Integrative Review (IR)

Major Depressive Disorder (MDD)

Post-traumatic Stress Disorder (PTSD)

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)

Primary Care Provider (PCP)

Measures Clinicians in the Urgent and Emergent Settings Can Use to Increase Psychosocial Support and Patient Satisfaction After Miscarriage: An Integrative Review

Women experiencing a loss of pregnancy are disproportionately at risk for depression and feelings of isolation than those not experiencing a loss (Shaohua & Shorey, 2021). Over 500,000 patients in the United States annually present to the emergency department (ED) due to complaints of miscarriage (Miller et al., 2019). Within those affected by miscarriage, a recent study showed that about 59% of mothers were not referred to counseling services immediately after their time of loss, even with an expressed desire to have psychosocial support (Bilardi et al., 2021). Clinicians within the clinical setting of urgent and emergent care would be proactive in implementing follow-up miscarriage psychosocial measures as more than half of women are not offered emotional care and support (Bilardi et al., 2021). Miscarriage has dramatic and harrowing effects on families and women who often feel hopeless and isolated in these unforeseen times.

Looking back within the realm of the nursing process, there has foundationally been a holistic emphasis in which the clinician has the underpinning of current evidence to guide their practice (White et al., 2021). In order to provide the best outcomes for patients experiencing miscarriage, clinicians within urgent and emergent settings must routinely question their decision-making based on up-to-date literature (Melnyk & Fineout-Overholt, 2019). Additionally, implementing alternative methodology in a chasm of safe, systematic approaches can help determine whether specific interventions are wise (White et al., 2021). Women's psychosocial, behavioral, and cognitive grief symptoms have shown significant improvement through measures such as counseling, support groups, patient liaisons, and routine psychological testing (Palas Karaca & Oskay, 2020). Only through a deeper understanding of interventions clinicians can make to improve psychosocial outcomes for mothers experiencing miscarriage

will meaningful change be made that greatly improves the lives of patients and their families.

Background

Etiology and Risk Factors

According to the Mayo Clinic (2021), the majority of miscarriages occur due to the fetus not developing as expected, with over 50% having missing or extra chromosomes, which would be defined as chromosomal abnormalities. It is important to note that this occurs due to errors that arise by random chance as the embryo divides and grows and are not directly related to genetic inheritance from the parents (Mayo Clinic, 2021). Often these chromosomal issues lead to a blighted ovum, intrauterine fetal demise, or partial/full molar pregnancy, thus no viable fetus can continue to develop. Additionally, risk factors for miscarriage include age higher than 35, previous miscarriage, chronic conditions such as diabetes or thyroid disease, uterine/cervical problems, tobacco/alcohol/illicit drug use, under- or overweight, and infection (Mayo Clinic, 2021). The Mayo Clinic also states that often there is nothing explicit that can be done to prevent a miscarriage; however, attempting to avoid risk factors, being compliant with prenatal vitamins and regular appointments, and controlling chronic conditions well may all be beneficial. Miscarriage currently affects approximately one in four women, with 80% of miscarriages occurring within the first trimester (Ho et al., 2022).

Current Psychosocial Care in the Urgent and Emergent Settings

Within life-altering diagnoses such as first-trimester miscarriage, timely care addressing mental, physical, and social issues can make the difference between optimal patient outcomes, satisfaction, and further physical and psychological complications. Currently, when a woman enters the urgent or emergent care setting with a chief complaint of increased vaginal bleeding and or intense cramping, several tests are performed, such as a pelvic exam, ultrasound, and

serum beta HCG (Coomarasamy et al., 2021). To prevent excessive blood loss or infection, a medication such as misoprostol or a surgical procedure called dilation and curettage (D&C) procedure might be necessary to completely clear the uterus of tissue (Mayo Clinic, 2021). All the while, the decision-making for this process in the urgent and emergent care setting is incredibly fast, with multiple codes and trauma responses going on concurrently. Because of this, emotional support is often put to the wayside as there are multiple clinical steps in place to ensure the mother's safety. Clinicians will sometimes provide a "miscarriage memory box" with a small blanket and other trinkets to help the mothers cope with grief. However, as noted in the literature, there is often little proper psychosocial support within this fast-paced setting (Palas Karaca & Oskay, 2020).

Psychosocial Miscarriage Bundles

Miscarriages impact over 500,000 patients entering emergency rooms annually. Providers and nurses must have evidence-based knowledge to manage the psychosocial issues associated with this traumatic event (Miller et al., 2019). When these situations arise, it is vital to have readily available interventions that clinicians can implement to provide the best possible care. Evidence in the literature has shown that a psychosocial miscarriage bundle would be beneficial for the mother. The bundle could include a case manager, a patient liaison at the bedside during the process, and allowing for social and religious needs to be met at the time of care (Miller et al., 2019). Over time psychosocial miscarriage bundles can be assessed for their effectiveness by measuring outcomes of care.

Defining Concepts and Variables

Within this integrative review (IR), two main variables exist: psychosocial measures for women experiencing a miscarriage and patient satisfaction scores in the aftermath of

miscarriage. The perception of the pregnancy loss experience often weighs heavily on the woman long after the time and experience she had in the urgent or emergent care setting have passed. The focus of this IR will be to examine measures already in place to assist clinicians in choosing more succinct, helpful options within the Electronic Health Record to assist women in the psychosocial realm. The definition of first-trimester miscarriage is anything below 13 weeks pregnant with loss of viability (Mayo Clinic, 2021). Miscarriage occurs before 20 weeks gestation and is one of the most common complications in pregnancy (Chong et al., 2021).

Miscarriage is not inherently preventable; however, causes of miscarriage greatly vary from hormone or chromosome abnormalities, an uninhabitable uterus, or simply idiopathic causes (Chong et al., 2021). Miscarriage can cause a wide array of emotions, from guilt, grief, anxiety for the future, and financial fear, which is why psychosocial measures are essential to the health and well-being of the patient and their family (Chong et al., 2021). Through implementing the commonplace intervention of referral to therapy services, nurse follow-up, or a liaison/case manager while the patient is in the clinical setting significantly reduces the risk for decreased patient scores and ineffective coping (Palas Karaca & Oskay, 2020).

Rationale for Conducting the Review

As it stands, the literature supports the reality that there is a gap between psychosocial measures being accomplished for women by clinicians after a miscarriage and often shows that women feel as though immediate and follow-up care is lacking. The IR brings relevant evidence-based practice regarding measures and interventions for this population in one succinct place. In order to improve outcomes and satisfaction for these patients, the information must be plainly presented while maintaining the highest degree of clinical scholarship.

This review has proven to be timely as many encountered today in the urgent and

emergent setting have dealt with pregnancy loss sometime within their lifetime. The grief can be overwhelming, and patients sometimes do not know how to navigate the next steps. The healthcare system can take meaningful steps to improve this realm of healthcare for many.

Problem Statement

Women who experience a miscarriage in the urgent and emergent setting are at risk for poor care satisfaction and psychosocial outcomes due to a lack of follow-up mental and social health resources, care management, and PCP follow-up. The consequences of a lack of psychosocial support are dire. Satisfaction and coping are greatly lacking after a miscarriage, because 59% of mothers are not referred to counseling services or support groups (Bilardi et al., 2021).

Purpose of the Integrative Review and Clinical Question

The purpose of this integrative review (IR) is to provide clinicians in the urgent and emergent settings with the tools to help women experiencing miscarriage with comprehensive psychosocial care. The clinical question for this IR is as follows: “For women who have a miscarriage, what measures (or interventions) can clinicians in the emergency department (or urgent care) use to increase psychosocial support and patient satisfaction?” Looking at current practices within miscarriage management in the urgent and emergent settings, the healthcare system should avoid relying on previously held knowledge to create change with fresh perspectives.

Inclusion and Exclusion Criteria

The studies selected for this IR were filtered through specific inclusion and exclusion criteria. The inclusion criteria for the studies selected for review included scholarly sources published within the last five years from 2017 to 2022, were peer-reviewed, possessed full-text

capability, and were written in English. The types of content included articles, journals, journal articles, and publications. The studies utilized were discovered under various disciplines including gynecology, obstetrics, psychology, nursing, public health, medicine, women's studies, and sciences. The majority of sources were gathered from the Jerry Falwell Library and Google Scholar for this integrative review. Magazine and newspaper articles were excluded from this IR. Studies that did not clearly focus on the psychosocial follow-up and aftercare of miscarriage were excluded from this integrative review.

Conceptual Framework

An IR requires a framework to develop evidence-based practice in an effective and thorough manner. Within this IR, the Whittemore and Knafl (2005) method is adopted to extract the information from each of the literature sources and is utilized as a formula for the evidence-based process. The Whittemore and Knafl method allows for stages at the system level of review for the psychosocial care of miscarriage, including problem identification, literature search, data evaluation, data analysis, and presentation. This IR combines the synthesis of both empirical and theoretical literature to guide practice further.

Section Two: Literature Review

Search Strategy

The purpose of this comprehensive systematic analysis is to find all the current and relevant available evidence to answer the clinical question: "For women who have a miscarriage, what measures (or interventions) can clinicians in the emergency department (or urgent care) use to increase psychosocial support and patient satisfaction?" Collected for this IR are 19 relevant studies that seek to find interventions and measures to better aid the mother with the mental and social ramifications of pregnancy loss. The database used was the Jerry Falwell Library.

Keywords used in the search engines were miscarriage, miscarriage in the emergency setting, miscarriage aftercare, emotional needs in miscarriage, psychosocial miscarriage, and follow-up for miscarriage. Sources were limited to full text only. The research articles included qualitative studies, meta-analyses, random controlled trials, expert opinions, and literature reviews.

Critical Appraisal

Articles were selected based on the inclusion and exclusion criteria and then further examined for applicability and accuracy based on several characteristics. A total of 19 articles were examined for this IR and thoroughly analyzed for evidence. Criteria needed for this IR were measures to improve care for miscarriage in the urgent and emergent setting, satisfaction of care, development of new follow-up care, and patient feedback of the care desired by a woman after a loss. All 19 articles showed the emotional and holistic effects of women having miscarriages as well as provided some level of solutions. Inclusion and exclusion criteria relied on the inclusion of improving patient satisfaction and psychosocial support while excluding strictly physical care post-miscarriage. The literature matrix allows for a close analysis of each study's purpose, sample size, statistical methods, results, Melnyk's level of evidence, limitations, and overall quality of evidence (see Appendix A). This breakdown of each of the studies provided further insight into the strengths, weaknesses, and overall limitations as pertaining to the clinical question at-hand. While the articles addressed psychosocial miscarriage management, there were various levels of evidence represented by the studies ranging from one study as Level 1, two as Level 2, and 16 categorized as Level 6 within Melnyk's level of evidence. Of the dozens of articles found during this search, 19 were applicable to this IR.

PRISMA

As each source was identified and distributed within the literature matrix, they were

further evaluated for potential bias. Within that bias, it was examined if each source allowed for holistic management of miscarriage management from a multidisciplinary standpoint (Merrigan, 2018). The customizable tool referred to as the Preferred Reporting Items for Systematic review Meta-Analyses (PRISMA) was utilized as a guide within the literature search (Page et al., 2019). The PRISMA tool allows researchers to effectively identify, select, appraise, and synthesize studies pertinent to the clinical question. The flow diagram was beneficial in assessing the data and providing a visual representation of the literature search within this integrative review (see Appendix B).

Synthesis

The conclusions drawn from the literature review are significant as they cover the overarching themes that women experiencing miscarriage often carry heavy grief and dissatisfaction with care which can be remedied through robust psychosocial measures (Bilardi et al., 2021). The synthesis of this IR relates to the overall necessary changes to current practice, which includes more robust follow-up care, more time given to explaining the process of miscarriage, and making sure to assess the mental health of the mother as post-partum. The literature suggests further improvement needs to be made to improve post-miscarriage care by consulting care management upon admission, connecting with social workers, having a patient advocate, liaison with nurse follow-ups, and investigating current protocols in literature (Ho et al., 2022).

Summary

To summarize, there is a gap in care and dissatisfaction among women who experience a miscarriage in the emergency setting. Women with miscarriages in the urgent and emergent settings can increase their satisfaction in the psychosocial realm based on implemented

psychosocial bundle measures such as a case manager, a patient care liaison at the bedside during the process, and allowing for social and religious needs to be met within the time of care (Miller et al., 2019).

Section Three: Results

Within this section of the IR, there will be full disclosure of the data analysis and the evident themes woven throughout the studies regarding psychosocial measures for miscarriages seen in the urgent and emergent care settings. In addition to the thematic data analysis of the literature, there will be a brief overview of the ethical and legal considerations within the study as well as the project timeline for completion. Throughout the 19 literature studies, four predominant themes were discovered: women experiencing miscarriage often carry heavy grief and dissatisfaction with care in the aftermath of the acute setting, routine screening allows for early recognition and improved miscarriage aftercare, algorithms within clinical practice measures can be used to guide practice, and lastly, there are often barriers to psychosocial health treatment and therapy. Each of these themes will be thoroughly discussed as they relate to the results found within the literature. The data analysis of the studies provides valuable evidence for clinicians within the acute urgent and emergent care settings regarding supporting the change of psychosocial miscarriage practices found in healthcare services for improved miscarriage aftercare.

Thematic Analysis

The Psychosocial Effect of Miscarriage

Miscarriage is a common complication of pregnancy, affecting up to 25% of clinically recognized pregnancies, and it can have significant psychosocial effects on women and their partners (Ho et al., 2022). The emotional impact of miscarriage can be significant and

long-lasting, with women reporting feelings of grief, guilt, anger, and depression (Chong et al., 2021). Women who experience miscarriage may also have feelings of isolation and shame, as they may feel that they have failed in their role as a mother (Ho et al., 2022). These emotions can be further exacerbated by societal expectations and cultural beliefs surrounding pregnancy and motherhood, which can make it difficult for women to openly discuss their experiences and seek support (Bellhouse et al., 2018).

The psychosocial effects of miscarriage can also impact a woman's relationship with her partner. Men may experience similar emotions to women following a miscarriage, but they may also feel a sense of powerlessness and frustration as they are unable to "fix" the situation (Hiefner & Villareal, 2021). The stress and grief of a miscarriage can strain a couple's relationship, as they struggle to navigate their emotions and support each other through the experience (Hiefner et al., 2021). However, communication and mutual support can also help couples to cope with the emotional fallout of a miscarriage and strengthen their relationship in the long term (Ho et al., 2022).

Depression following a miscarriage can have a significant impact on a woman's mental health and overall well-being. If left untreated, it can lead to a range of negative consequences. For instance, depression may interfere with a woman's ability to cope with daily activities, impair her work performance, and strain her interpersonal relationships. Additionally, it may increase the risk of developing chronic health conditions such as Major Depressive Disorder (MDD) and Post-traumatic stress disorder (PTSD) (Freeman et al., 2021). Depression can also make it difficult for a woman to form a strong attachment with a subsequent pregnancy, which may increase her risk of experiencing anxiety and depression during that pregnancy (Geller et al., 2010). Thus, early identification and treatment of depression following a miscarriage is critical to

prevent long-term negative consequences and improve a woman's overall mental health and well-being.

Improved Miscarriage Aftercare Outcomes

Miscarriage can be a traumatic experience that can have long-lasting psychological effects on individuals and couples. Early recognition and improved aftercare, starting in the urgent and emergent settings with proper psychosocial screening, can help individuals cope with the emotional and psychosocial symptoms of miscarriage. Many general practitioners see the need for prioritization of care within the emergency setting surrounding miscarriage but also the psychosocial needs that come after that (Sumarno et al., 2020). Routine screening for mental health concerns, such as anxiety and depression, during and after pregnancy can help identify individuals who may be at risk of experiencing negative psychological outcomes following a miscarriage (Chang et al., 2021).

Several studies have shown that routine screening for mental health concerns can improve aftercare for individuals who have experienced a miscarriage. For example, a systematic review and meta-analysis of 19 studies found that routine screening for depression during and after pregnancy was associated with a decrease in the severity of depressive symptoms and an increase in treatment uptake (Slomian et al., 2019). Additionally, a study conducted by the American College of Obstetricians and Gynecologists (ACOG, 2018) found that implementing a routine screening program for mental health concerns during pregnancy and after birth improved outcomes for women, including reducing the likelihood of postnatal depression and improving access to appropriate care.

After a miscarriage, depression can develop and have significant negative effects if left unacknowledged and untreated. While screening for depression alone has shown clinical

benefits, the ACOG (2018) has shown over decades of systematic review that referral to mental health care providers or initiating treatment can provide the greatest benefits. To ensure proper diagnosis and treatment, follow-up systems should be established. Clinicians in the urgent and emergent settings can use preemptive education through screening such as the Edinburgh Postnatal Depression Scale (EPDS) to alleviate emotional expectations (Larivière-Bastien et al., 2019). Additionally, by applying Swanson's Caring Theory, which includes weekly home visits, phone calls, and RN communication, miscarriage aftercare improves substantially (Palas Karaca & Oskay, 2020). By providing early recognition and improved aftercare, individuals can receive the support and care they need to cope with the emotional and psychosocial symptoms of miscarriage.

First Line Psychosocial Miscarriage Algorithms

Patients who receive care in an urgent or emergent setting for miscarriage may require psychosocial support to cope with the emotional and physical symptoms of the event. Algorithms within clinical practice can be used to guide practice and increase psychosocial support and patient satisfaction after miscarriage. As noted within this IR, screening rates and algorithms to determine poor emotional and psychosocial outcomes are underutilized within the “first line” settings and often not well supported among clinicians (Freeman et al., 2021). The ACOG (2018) note that a full assessment of mood and emotional well-being, i.e., the use of a validated instrument such as the Edinburgh Postnatal Depression Scale or the Postpartum Depression Screening Scale, is vital to the postpartum health of those experiencing miscarriage.

Several studies have shown the benefits of using clinical algorithms to guide practice in the urgent and emergent settings for patients who have experienced a miscarriage. For example, a study conducted in an emergency department found that implementing a clinical pathway for

the management of early pregnancy loss resulted in a decrease in the time patients spent in the emergency department and an increase in the provision of psychosocial support and referral to follow-up care (Merrigan, 2018). This study highlighted the importance of policy education for emergency nurses, specifically, and how standard practice for care for all women experiencing pregnancy loss is key to adequate follow-up (Merrigan, 2018). Additionally, a study found that implementing an algorithm for the management of miscarriage in the emergency department resulted in an increase in patient satisfaction and a decrease in the number of patients who required admission to the hospital (Miller et al., 2019).

Scientific evidence supports the implementation of clinical pathways and algorithms for the management of miscarriage, which can improve the provision of psychosocial support and referral to appropriate care for patients who have experienced a miscarriage. In the field of pregnancy loss within Texas, 32 experts gave input, in combination with a systematic scholarly review, to create a series of guidelines for emergency and urgent care providers (Catlin, 2018). Among many pivotal principles and guidelines, it was noted that women are best served by a concrete walk-through of what to expect next in the immediate miscarriage process and given definite dates to allow for follow-up and social support (Catlin, 2018). Catlin's study shows the following:

> Hospitals provide the (emergency department) ED with human resources to assist the ED team, such as a perinatal bereavement team member, chaplain, social worker, behavioral health staff, maternal child nurse, and hospice or palliative care staff. The assigned bereavement coordinator within or outside of the ED may follow up with a phone call to the family at 1 week and text, email, or phone the family at 1 month. (para. 24)

By providing timely and appropriate care, patients can receive the support they need to cope with

the emotional and physical symptoms of miscarriage, resulting in increased patient satisfaction and improved health outcomes.

Barriers to Psychosocial Miscarriage Health Treatment

The literature notes there are several barriers that can prevent individuals who have experienced a miscarriage from accessing psychosocial health treatment and therapy. These barriers can include social stigma, lack of awareness of available services, financial constraints, and geographic barriers. Gaps in care can be found starting in the urgent and emergent settings where the primary focus may be on the physical health of the patient rather than the long-term psychosocial ramifications (Larivière-Bastien et al., 2021). In fact, current research suggests more timely research must be done to prevent and predict when women are at high risk of psychological morbidity in the period after the event (Coomarasamy et al., 2021).

Stigma and lack of awareness of available services are significant barriers to accessing psychosocial health treatment and therapy for those experiencing miscarriage. Miscarriage is often stigmatized and not widely discussed, which can lead to individuals feeling ashamed or embarrassed to seek help. A study conducted in Australia found that women who experienced a miscarriage often felt stigmatized and blamed themselves for the event, which prevented them from seeking support (Bellhouse et al., 2019). Additionally, a study conducted in Taiwan found that women who experienced a miscarriage often felt isolated and unsupported, which led to them not seeking help (Chang et al., 2021).

Financial constraints and lack of access can also be a barrier to accessing psychosocial health treatment and therapy for those experiencing miscarriage. Therapy and mental health treatment can be expensive, and many individuals may not have the financial means to pay for these services. A study conducted in Australia found that the cost of accessing mental health

services was a significant barrier for individuals who had experienced a miscarriage, and their study notes that those with a higher socioeconomic status are often overrepresented in literature (Bilardi et al., 2021). Similarly, a study conducted in the United States found that lack of income for mental health services was a barrier to accessing care for individuals who had experienced a miscarriage (Shaohua & Shorey, 2021).

These barriers can have negative consequences for the mental health and well-being of individuals who have experienced a miscarriage, and it is important to address these barriers to ensure that individuals receive the support they need. The literature shows it is the responsibility of the emergency and urgent care clinicians to initiate management of these barriers to have the best path to success for this population (Catlin, 2018). By raising awareness of available services, reducing social stigma, and providing financial support, individuals who have experienced a miscarriage can be better supported in their mental health journey.

Synthesis

Throughout the review of the literature, valuable insight into the provision of optimal miscarriage aftercare was gleaned, including the negative impact of missed psychosocial interventions, the importance of early identification and improved follow-up, the need for first-line algorithms and guidelines, and how barriers may impede on positive psychosocial interventions and patient satisfaction. The reviewed studies have provided relevant information regarding the reality of mental health issues after miscarriage. However, the review did not provide a clear, succinct post-miscarriage algorithm to be adopted in the urgent and emergent care settings. Most articles suggested that screening for mental health issues after miscarriage should be continuous, integrated promptly into miscarriage aftercare, and include follow-up with a nurse or other clinician in the immediate future. The EPDS and Postpartum Depression

Screening Scale screening tools have demonstrated efficiency and specificity in identifying women at risk, but further research is necessary to examine the outcomes of women with appropriate follow-up care. Despite some limitations of the studies reviewed, the evidence supports the need for consistent acute care clinical guidelines and primary care follow-up to optimize post-miscarriage mental health care and improve psychosocial health outcomes.

Ethical Considerations

When conducting an IR, it is crucial to comply with the regulations and ethical guidelines for research. To ensure proper adherence to biomedical and health science research principles, the project leader and chair initially completed the Collaborative Institutional Training Initiative (CITI) modules (see Appendix C). After developing the project proposal, it was then submitted to the Liberty University Institutional Review Board (IRB) and approved (see Appendix D). Since the project is classified as an IR, it did not involve the use of human subjects during the research process.

Timeline

This IR was developed and executed throughout four academic courses in the Doctor of Nursing Practice (DNP) program. To ensure that the project was completed in a timely manner, a schedule was established to track each milestone:

- Initiated the development of my IR: November 28, 2022
- Sections One and Two: January 22, 2023
- First defense: January 27, 2023
- Approval from IRB: February 20, 2023
- Section Three: April 30, 2023
- Section Four: By May 12, 2023

- Final draft sent and submitted to project chair: By May 15, 2023
- Final draft sent to the editor: By May 31, 2023
- Final defense: By July 7, 2023
- End of academic term: By July 7, 2023

Section Four: Discussion

Summary of Evidence

The literature analyzed within this IR provided strong evidence indicating the benefits of consistent screening for postpartum depression after a miscarriage and swift interventions for psychosocial measures within the urgent and emergent settings. Each of the articles emphasized the negative effects of untreated emotional and social health for women who experience a miscarriage in urgent care and emergent settings. Although acute psychosocial screening immediately after a miscarriage and other follow-up interventions were thoroughly evaluated throughout the literature, there were no concrete evidence-based clinical guidelines for psychosocial interventions. In fact, the consensus found within the literature suggests that postpartum depression screening should be treated as a continual procedure woven throughout perinatal care. In addition, researchers believe that clinical guidelines following the acute event of miscarriage should be patient-specific and adaptable in different settings for the patient and their family.

Several themes have highlighted the significance of miscarriage aftercare psychosocial interventions intertwined within the articles. Each of the themes offered an implication for postpartum care which included the need for overarching policy development to direct acute miscarriage psychosocial guidelines, consistent screenings to determine what the woman might be experiencing, early intervention initiation with follow-up within a day, and robust

identification of barriers to implementing interventions and treatment in the outpatient setting. Despite the lack of evidence-based guidelines for miscarriage aftercare, the evidence found within this IR can be utilized to further enhance practitioner knowledge and guide practice in urgent and emergent settings.

Implications for Practice

The comprehensive literature review conducted in this study brought to light the lack of consistent clinical psychosocial guidelines for women who experience a miscarriage in urgent and emergent care settings. This IR underscores the existing gap in miscarriage aftercare nationwide, emphasizing the urgent need for emergency medicine and urgent care providers to reevaluate their psychosocial screening practices in order to optimize the health outcomes of women following a miscarriage. The reviewed articles highlight not only the significant impact on women who experience a miscarriage but also the adverse effects on family well-being. The presence of postpartum depression after a miscarriage sets in motion a chain of serious complications that can persist for years if left unrecognized and untreated. In light of these compelling findings, it becomes imperative to consider practice changes and prioritize increased educational opportunities for practitioners who serve women after a miscarriage. This literary review serves as a foundation for further research aimed at developing specific measures to urgent and emergent care settings, with the ultimate goal of enhancing nursing and medical care in the urgent and emergent settings as well as miscarriage aftercare.

Limitations

This IR encountered several notable limitations during its execution. The literature search process was divided into two stages. Initially, a broad search was conducted within the Jerry Falwell Library, and the project leader carefully sifted through articles to select those that aligned

with the inclusion and exclusion criteria. One limitation arose from the challenge of finding sources specifically focused on psychosocial measures implemented in urgent and emergent care settings to assist women after a miscarriage. While there were numerous sources discussing the physical ramifications of miscarriage, locating literature addressing psychosocial clinical guidelines proved more difficult. Furthermore, certain sources that clearly discussed miscarriage aftercare psychosocial interventions were excluded due to the predetermined exclusion criteria.

Each of the included studies acknowledged potential biases in their results, as well as identified overall limitations. As an integrative review, these limitations were considered when analyzing the synthesized findings. Limitations encompassed various aspects, such as the sample size of the studies, variations among the women sampled, incomplete findings, barriers to care, or potential bias introduced by the study or project leader. These limitations have the potential to impact the results obtained within this integrative review.

Dissemination Plan

The results of this IR shed light on the insufficient support available to women following a miscarriage and the advantages of continuous and evidence-based psychosocial miscarriage aftercare. The findings from this review can serve as a foundational component for future research endeavors focusing on the development of clinical guidelines for miscarriage follow-up. The project leader intends to submit this IR to the *Cureus Journal of Medical Science* for peer review and potential publication. Additionally, the final defense will be submitted to the Scholar's Crossing, Liberty University's institutional repository for scholarly papers.

Given the vulnerable nature of the population addressed in this IR, it is essential to disseminate the results to local acute care settings and outpatient offices that provide care during the miscarriage aftercare period. By comprehending the findings, it becomes crucial to initiate

changes in acute and outpatient healthcare practices, integrating effective clinical guidelines that address the needs of women experiencing a miscarriage. These results emphasize the urgency and importance of implementing appropriate support and care within the healthcare system to improve the overall well-being of women after miscarriage.

Conclusion

In conclusion, this IR has highlighted the significant gaps and limitations in the provision of psychosocial support for women following a miscarriage, particularly within urgent and emergent care settings. The findings emphasize the urgent need for standardized clinical guidelines and protocols to address the psychosocial needs of women during the miscarriage aftercare period. The reviewed literature underscores the detrimental effects of inadequate support on women's well-being and the potential long-term consequences on their mental health. Furthermore, the study identifies the benefits of continuous and evidence-based psychosocial care in improving patient satisfaction and overall outcomes.

Ultimately, it is also crucial for acute care settings and outpatient offices to recognize the implications of this research and take immediate action to integrate effective clinical guidelines for miscarriage aftercare. By addressing the identified gaps and implementing appropriate psychosocial support measures, nurses and healthcare providers can significantly improve the well-being and outcomes of women following a miscarriage. This IR acts as a call to action for healthcare professionals to prioritize the psychosocial needs of these vulnerable individuals and strive towards comprehensive and compassionate care.

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Appendix A: Evidence Table

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
American College of Obstetricians and Gynecologists. (2018). ACOG Committee Opinion No. 757: Screening for perinatal depression. *Obstetrics & Gynecology*, *132*(5). https://doi.org/10.1097/aog.0000000000002927	To identify pregnant and postpartum women with depression because untreated perinatal depression and other mood disorders can have devastating effects	In 2016 USPSTF changed guidelines based on review of combined six randomized controlled trials that screened pregnant or postpartum patients with or without additional care offered based on results of screening	Expert opinions based on non-systematic reviews of results or mechanistic studies	Findings indicate there is evidence that screening alone can have clinical benefits, although initiation of treatment or referral to mental health care providers offers maximum benefit	Level 7: expert opinion	There are no large randomized controlled trials that definitively prove the benefits of screening alone without the necessary treatment	Yes, provides some foundational information despite level 7
Bellhouse, C., Temple-Smith, M., Watson, S., & Bilardi, J. (2019). "The loss was traumatic… some healthcare providers added to that": Women's experiences of miscarriage. *Women and Birth*, *32*(2), 137-146. https://doi.org/10.1016/j.wombi.2018.06.006	To explore the psychological distress experienced by women as a result of miscarriage, as well as the perceived support	Fifteen women were recruited in Australia in 2019 and participated in semi-structured interviews either in person or over the telephone.	A qualitative case study	For most women, the levels of distress, grief, and loss associated with their miscarriages were significant	Level 6: Single qualitative case study	Again, larger scale research is now needed in to determine if these women's experiences are representative of the wider population	Yes, a number of recommendations have been provided by women to improve the service of healthcare providers in the event of a

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
	provided by healthcare professionals						miscarriage, including referral to a psychologist, and ongoing follow-up
Bellhouse, C., Temple-Smith, M. J., & Bilardi, J. E. (2018). “It’s just one of those things people don’t seem to talk about...” women’s experiences of social support following miscarriage: A qualitative study. *BMC Women's Health*, *18*(1). https://doi.org/10.1186/s12905-018-0672-3	To show social networks as an important role in supporting women following this event and positive support experiences can play a role in buffering women’s experiences of grief, loss and psychological distress following miscarriage	Fifteen women living in Australia completed semi-structured interviews either in person or by telephone regarding their experiences of social support following miscarriage	A qualitative descriptive approach	Women also expressed they felt there was a vast silence surrounding miscarriage, with others being commonly uncomfortable discussing the event leading to feelings of loneliness and isolation	Level 6: A descriptive design	Larger scale research is now needed in to determine if these women’s experiences are representative of the wider population	Unknown, this is only referencing women after first trimester miscarriages that are seeking social help

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
Catlin, A. (2018). Interdisciplinary guidelines for care of women presenting to the Emergency Department with Pregnancy Loss. *MCN: The American Journal of Maternal/Child Nursing*, *43*(1), 13-18. https://doi.org/10.1097/nmc.0000000000000399	To create guidelines for care of women with a pregnancy loss in the ED	Thirty-two experts in the field of pregnancy loss, 17 of whom represented their professional organizations, participated. These experts, which included nurses, physicians, social workers, counselors, authors, and parents, worked together to create guidelines for care of women with a pregnancy loss in the ED.	Expert opinions based on non-systematic reviews of results or mechanistic studies	Emergency department personnel agreed that improvements in care could be offered and were willing to endorse education for their staff. The guidelines delineate how to better provide physical, emotional, and bereavement support at any stage of gestational loss.	Level 7: expert opinion	A lot of the informational is anecdotal based on the healthcare professionals experiences	Yes, this provides a large overview for ED guidelines for miscarriage
Chang, S.-C., Kuo, P.-L., & Chen, C.-H. (2021). Effectiveness of empathic caring on stress and depression for women with recurrent miscarriage: A randomized controlled trial. *Complementary Therapies*	To investigate the effectiveness of empathic	Sixty-two eligible women were randomly assigned to either the	Randomized controlled, Data was independentl y reviewed,	Paired-sample t-tests revealed that, after receiving	Level 2 - One or more randomized controlled	Geographical restriction to Taiwan only, no effects were found on	Yes, Clinical healthcare professionals may incorporate empathic caring

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
in Clinical Practice, *43*, 101367. https://doi.org/10.1016/j.ctcp.2021.101367	caring on sleep quality, depression, stress, and social support in women with recurrent miscarriage	experimental group (n = 31), which received three face-to-face nursing counseling sessions, or the control group (n = 31)	Outcome measures included the Pittsburgh Sleep Quality Index, Edinburgh Postnatal Depression Scale, Perceived Stress Scale, and Interpersonal Support Evaluation List	nursing counseling, the participants in the experimental group showed significant decreases in stress and depression	trials	sleep quality or perceived social support	into health-promotion protocols to assist women with recurrent miscarriage to improve their psychosocial health.
Coomarasamy, A., Gallos, I. D., Papadopoulou, A., Dhillon-Smith, R. K., Al-Memar, M., Brewin, J., Christiansen, O. B., Stephenson, M. D., Oladapo, O. T., Wijeyaratne, C. N., Small, R., Bennett, P. R., Regan, L., Goddijn, M., Devall, A. J., Bourne, T., Brosens, J. J., & Quenby, S. (2021). Sporadic miscarriage: Evidence to provide effective care. *The Lancet*, *397*(10285), 1668-1674. https://doi.org/10.1016/s0140-6736(21)00683-8.	To urge health-care funders and providers to invest in early pregnancy care, with specific focus on training for clinical nurse specialists	Search of the Cochrane Database of Systematic Reviews and MEDLINE (from inception until Jan 9, 2020) for systematic reviews specifying or reporting any	Retrospective administrative data analysis, six reviews focused on the prevention of miscarriage in women with	Relative effects from the network meta-analysis of 35 trials (8161 women) did not show important differences among the six approaches for the	Level 6: Descriptive Retrospective Design	There are limitations in the evidence, both in terms of quantity and quality and, therefore, consensus among experts when this was necessary	Unknown, there is more of an emphasis on medical management than psychosocial aftercare for miscarriage

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
	and doctors to provide comprehensive miscarriage care within the setting of dedicated early pregnancy units	miscarriage outcome. Any review published before January, 2019 was utilized	bleeding and 12 on the management of miscarriage	composite outcome of death or serious complications, such as uterine perforation, and need for further life-saving procedures including hysterectomy, blood transfusion, or intensive care unit admission			
Bilardi, J. E., Sharp, G., Payne, S., & Temple-Smith, M. J. (2021). The need for improved emotional support: A pilot online survey of Australian women's access to healthcare services and support at the time of miscarriage. *Women and Birth*, *34*(4), 362-369. https://doi.org/10.1016/j.wombi.2020.06.011	To pilot a survey aimed at exploring women's access to healthcare services and support at the time of miscarriage	Women over 18 years, residing in Australia, who had experienced a miscarriage in the past two years completed a 29-item online survey.	A total of 399 women completed the survey, over a three month period from February to April 2019	Two key findings arose: 1) More than half of women (59%) were not offered any information about miscarriage or pregnancy	Level 6: Descriptive Retrospective Design	Sample is limited to certain regions in Australia, it was a self-survey so objectiveness is unclear	Yes, need for improved support care through simple measures such as increased acknowledgement, information provision and referral to existing support services

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
				loss support organizations or referral/access to counseling services at the time of miscarriage, despite almost all reporting they would have liked various forms of support from items listed 2) More than half (57%) did not receive follow up care, or emotional support			
Hiefner, A. R., & Villareal, A. (2021). A multidisciplinary, family-oriented approach to caring for parents after miscarriage: The Integrated Behavioral Health Model of Care. *Frontiers in Public Health*, *9*. https://doi.org/10.3389/fpubh.2021.725762	To ensure a high quality and holistic level of care for individuals, couples, and families experiencing	Three key strategies for implementation of a family-oriented biopsychosocial approach to miscarriage care that can	Observational, cross-sectional study	IBH (Integrated behavioral health) model represents an important opportunity to address the limitations of	Level 6: Qualitative single study	Limitations in care are largely due to a lack of training in managing the psychosocial aspects of miscarriage,	Yes, empathic, biopsychosocial care can set a trajectory for successful coping and sufficient support

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
	pregnancy loss.	facilitate these important action items while simultaneously addressing the barriers that impede their use		current miscarriage care, as well as the barriers to implementation of family-oriented, biopsychosocial care		limited time, inadequate resources, and compassion fatigue	
Chong, K., Li, W., Roberts, I., & Mol, B. W. (2021). Making miscarriage matter. *The Lancet*, *398*(10302), 743-744. https://doi.org/10.1016/s0140-6736(21)01379-9	To improve and provide effective personalized care; reliable information on the effectiveness of interventions used to manage miscarriage is therefore essential	Based on a 2019 Cochrane review by David Haas and colleagues5 with ten studies (1684 women) reporting a reduced risk of miscarriage in unselected women with recurrent miscarriage, and in women with at least three previous miscarriages	A retrospective, repeated cross-sectional study using administrative data	Reports a positive (albeit non-significant) effect of progesterone, is extracted from a retrospective trial registration of a study that was never published - the estimated treatment effect of progesterone becomes much less	Level 6: Retrospective qualitative study design	Does not allow an extensive assessment of studies on thyroxine, aspirin, or heparin - concerned that the integrity of a large part of the studies underlying these reviews might not be any better	Yes, by looking at the miscarriage series from Dr. Quenby it will give insight into psychological aftercare in miscarriage

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
				convincing			
Freeman, A., Neiterman, E., & Varathasundaram, S. (2021). Women's experiences of health care utilization in cases of early pregnancy loss: A scoping review. *Women and Birth*, *34*(4), 316-324. https://doi.org/10.1016/j.wombi.2020.07.012	To improve quality of care, it is crucial to understand women's' experiences within the healthcare system in cases of early pregnancy loss	Three research databases were searched for relevant articles published in English since 2009, with key words related to 'Experience', 'Healthcare' and 'Early Pregnancy Loss'	Observational, cross-sectional study	The literature suggests that women's experiences related to healthcare for early pregnancy loss are largely negative, particularly within emergency departments	Level 6: Qualitative single study	More studies are needed that will explore women's experiences of receiving such care in the healthcare setting	Yes, recommendations to improve women's experiences should extend beyond attempts to improve existing care structures, to include emerging environments and providers
Geller, P. A., Psaros, C., & Kornfield, S. L. (2010). Satisfaction with pregnancy loss aftercare: Are women getting what they want? *Archives of Women's Mental Health*, *13*(2), 111-124. https://doi.org/10.1007/s00737-010-0147-5	To identify what comprises "treatment as usual" with pregnancy loss aftercare, how satisfied women are with the typical services they receive from healthcare personnel,	17 studies included in this review were selected following a thorough literature search using PubMED, PsycINFO, and CINAHL, and combinations of the following keywords:	Narrative review	The literature shows women and families who have experienced a miscarriage report low levels of satisfaction in the presence of perceived negative attitudes from healthcare providers,	Level 6: descriptive design	Only 17 studies were utilized and the information is now outdated.	Yes, the information was valuable in proving improved patient outcomes with sufficient information and follow-up for emotional needs

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
	and whether these services are consistent with women's self-identified needs	"miscarriage," "spontaneous abortion," "pregnancy loss," "post-pregnancy loss," "satisfaction," "dissatisfaction," "medical care," "patient care," "hospital care," "aftercare," and "care." Articles published through November 2009 were reviewed and are included if deemed to have met inclusion criteria.		insufficient provision of information, and inadequate follow-up care that did not focus on emotional well-being.			
Ho, A. L., Hernandez, A., Robb, J. M., Zeszutek, S., Luong, S., Okada, E., & Kumar, K. (2022). Spontaneous miscarriage management experience: A systematic review. *Cureus*. https://doi.org/10.7759/cureus.24269	To identify, evaluate, and summarize the findings of all relevant individual studies	Researchers searched articles from 2010 to 2021 for reports mentioning treatment for	Data was independently reviewed, graded for evidence quality, and assessed for	All qualitative studies reported dissatisfaction with care provided in the	Level 6: Descriptive Design	Geographical restriction to the US. Only studies published in peer-reviewed journals were	Yes, it is evident that psychological interventions are beneficial for this patient population

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
	regarding spontaneous miscarriage psychological treatment and patient experiences in various clinical settings in the USA	spontaneous abortion. Search terms included "miscarriage aftercare" and "spontaneous abortion care," seeking articles addressing the psychological effects of miscarriage and reporting patient experiences	risk bias using the AMSTAR checklist	emergency department, partially due to a lack of emotional support. Structured bereavement intervention was beneficial for women experiencing early pregnancy loss and led to fewer reports of despair.		included to ensure reporting quality, only a handful of relevant studies	
Larivière-Bastien, D., deMontigny, F., & Verdon, C. (2019). Women's experiences of miscarriage in the emergency department. *Journal of Emergency Nursing*, *45*(6), 670-676. https://doi.org/10.1016/j.jen.2019.06.008	To identify characteristics of care management that may have contributed to the difficulties experienced by women presenting with miscarriage	Forty-eight women treated at 4 emergency departments in different regions of Quebec, Canada, were interviewed for 60 to 90 minutes	A thematic qualitative analysis	Analyses revealed that participants' experiences were characterized particularly by a lack of information at 3 critical junctures of the miscarriage experience:	Level 6: A qualitative study	Sample homogeneity, as there was little variation in participants' cultural and socioeconomic profiles	Yes, there is increased need for management of pregnancy loss in the emergency department, which rarely includes considering women's experiences

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
	in the emergency department			the announcement of the miscarriage, the course of the miscarriage, and the ED discharge			
Merrigan, J. L. (2018). Educating emergency department nurses about miscarriage. *MCN: The American Journal of Maternal/Child Nursing*, *43*(1), 26-31. https://doi.org/10.1097/nmc.0000000000000391	To show communication strategies to initiate and sustain a meaningful relationship with the woman and her family, within the barriers to care that are exclusive to the emergency department	A 4-hour didactic and interactive workshop was developed incorporating the principles outlined by the National Perinatal Association "Interdisciplinary Guidelines for Care of Women Presenting to the Emergency Department with Pregnancy Loss"	An experimental, quantitative study	Designed to help (a) identify current practice in all departments where women with perinatal loss receive care, (b) review and align perinatal bereavement policies across units and disciplines, and (c) include current evidence-based practice to	Level 6: Single Quantitative Study	Workshop and policies need a firmer framework across a hospital system in interprofessional collaboration	Yes, communication strategies to initiate and sustain a meaningful relationship with the woman and her family, within the barriers to care that are exclusive to the emergency department

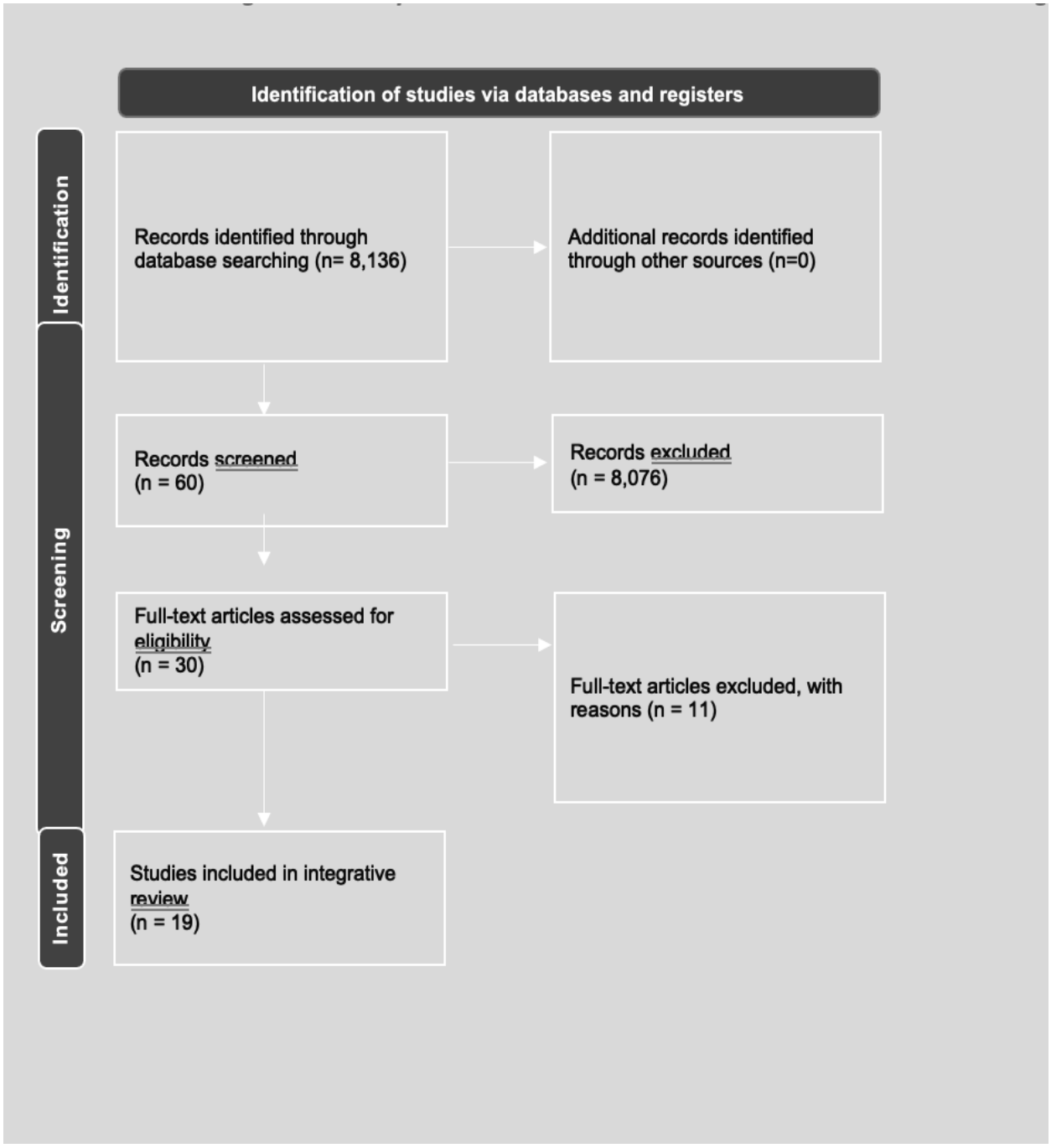
Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
				create a standard of care for women			
Miller, C. A., Roe, A. H., McAllister, A., Meisel, Z. F., Koelper, N., & Schreiber, C. A. (2019). Patient experiences with miscarriage management in the emergency and ambulatory settings. *Obstetrics & Gynecology*, *134*(6), 1285-1292. https://doi.org/10.1097/aog.0000000000003571	To describe the patient experience for clinically stable patients presenting with miscarriage to the emergency department	Fifty-four patients were evaluated based on location of miscarriage care and novel parameters were assessed including timeline (days) from presentation to miscarriage resolution, number of health system interactions, and number of specialty-based provider care teams	A secondary analysis of a convergent exploratory mixed-methods study	Of the 54 patients evaluated, the majority of the ED patients reported a lack of clarity surrounding their diagnosis, inefficient care, and a mixed experience with health care provider sensitivity	Level 6: Descriptive retrospective design	Data included in this analysis were limited to those recorded in the Penn Medicine electronic medical record.	Yes, specific interventions in the provision of miscarriage care such as targeted emotional support improve patients' experience
Palas Karaca, P., & Oskay, Ü. Y. (2020). Effect of supportive care on the psychosocial health status of women who had a miscarriage. *Perspectives in Psychiatric Care*, *57*(1), 179-188.	To determine the effect of individualized care provided	A total of 104 women who experienced a miscarriage were	A randomized controlled study	The women's physical, emotional, behavioral, and cognitive	Level 2 - One or more randomized controlled	Small sample size of only 100 people, only Swanson's	Supportive care and counseling provided after miscarriage were found to

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
https://doi.org/10.1111/ppc.12540	based on Swanson's Caring Theory on the grief, depression, anxiety, and stress levels of women who had a miscarriage	randomized as study (n = 52) and control (n = 52) groups		grief symptoms decreased after receiving Swanson's care ($P < .001$). Negative feelings about the future, level of depression, and anxiety levels diminished after receiving Swanson's Care ($P < .001$).	trials	Caring Theory applied	contribute to women's psychosocial well-being and to improve their ability to cope with psychological symptoms.
Shaohua, L., & Shorey, S. (2021). Psychosocial interventions on psychological outcomes of parents with perinatal loss: A systematic review and meta-analysis. *International Journal of Nursing Studies*, *117*, 103871. https://doi.org/10.1016/j.ijnurstu.2021.103871	To evaluate the effectiveness of psychosocial interventions in reducing depression, anxiety, and grief among	English language articles published from database inception to 19 November 2019 were systematically retrieved from	A systematic review and meta-analysis of randomized controlled trials	Among this review's 17 included studies, 15 studies' results were included in the meta-analyses. The	Level 1 - Systematic review & meta-analysis of randomized controlled trials; clinical guidelines	Restricted to CINAHL, Cochrane, EMBASE, ProQuest Dissertations and Theses Global, PsycINFO, PubMed,	Yes, Psychosocial interventions are effective in improving depression, anxiety, and grief amongst parents with perinatal loss

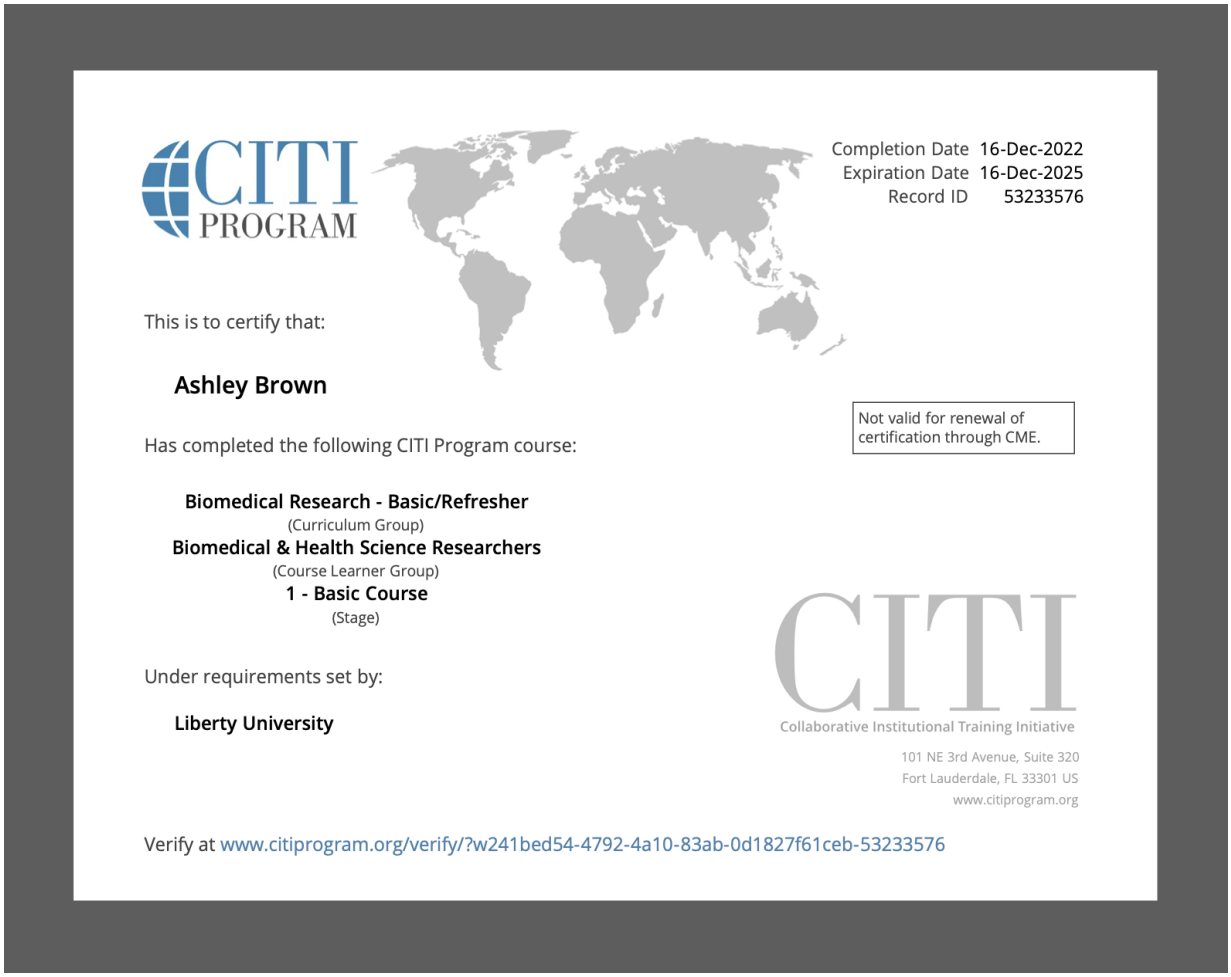
Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
	parents after perinatal loss	eight electronic databases		remaining two studies were summarized narratively. Meta-analyses revealed that psychosocial interventions significantly reduced depression	based on systematic reviews or meta-analyses	Scopus, Web of Science	
Sumarno, V., Temple-Smith, M. J., & Bilardi, J. E. (2020). Whose role is it? primary care and the provision of emotional support for women experiencing miscarriage: A pilot qualitative Australian study. *Australian Journal of Primary Health*, *26*(5), 388. https://doi.org/10.1071/py20042	To explore the views and practices of GPs in providing emotional support to women experiencing miscarriage	Eight GPs participated in semi-structured interviews in suburban of Metro in Australia	A qualitative case study	GPs preferred an individualized approach to emotional support and mostly offered follow-up appointments if a patient requested it or was considered 'high risk' for mental health issues.- others felt it was the role of social	Level 6: Single qualitative case study	Further research is required to determine whether support is best placed within primary care or better served through external organizations	Yes, the researchers show measures to identify several structural and external barriers that precluded enhanced emotional support

Article	Study Purpose/ Objective(s)	Sample Characteristics	Methods	Study Results	Level of Evidence (Melnyk Framework)	Study Strengths & Limitations	Would Use as Evidence to Support a Change?
				networks and pregnancy loss support organizations			

Appendix B: PRISMA Diagram



Appendix C: CITI Training Certificate



CITI PROGRAM

Completion Date 16-Dec-2022
Expiration Date 16-Dec-2025
Record ID 53233576

This is to certify that:

Ashley Brown

Not valid for renewal of certification through CME.

Has completed the following CITI Program course:

Biomedical Research - Basic/Refresher
(Curriculum Group)
Biomedical & Health Science Researchers
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Liberty University

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Verify at www.citiprogram.org/verify/?w241bed54-4792-4a10-83ab-0d1827f61ceb-53233576

Appendix D: Institutional Review Board Approval

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

February 20, 2023

Ashley Autenreith

Vickie Moore

Re: IRB Application - IRB-FY22-23-1129 Measures Clinicians in the Urgent and Emergency Setting Can Use to Increase Psychosocial Support and Patient Satisfaction After Miscarriage: An Integrative Review

Dear Ashley Autenreith and Vickie Moore,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds that your study does not meet the definition of human subjects research. This means you may begin your project with the data safeguarding methods mentioned in your IRB application.

Decision: No Human Subjects Research

Explanation: Your study is not considered human subjects research because it will not involve the collection of identifiable, private information from or about living individuals (45 CFR 46.102).

Please note that this decision only applies to your current application. Any modifications to your protocol must be reported to the Liberty University IRB for verification of continued non-human subjects research status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this determination or need assistance in determining whether possible modifications to your protocol would change your application's status, please email us at irb@liberty.edu.

Sincerely,

G. Michele Baker, MA, CIP

Administrative Chair of Institutional Research

Research Ethics Office