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A Review of Miscarriage and Healthcare Communication in the United States

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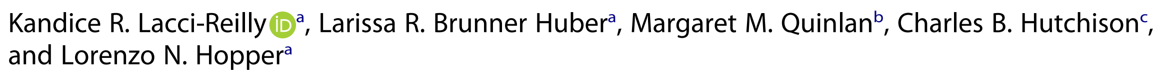

ABSTRACT

Miscarriage is a pervasive and socioemotionally complex pregnancy complication. Evidence suggests that poor clinical management can worsen these experiences. Yet, assessments of healthcare communication during a miscarriage are limited and a systematic review of the literature is needed. This review identified and synthesized original research on miscarriage and healthcare communication in the United States from the past 20 years to identify existing knowledge gaps for future miscarriage research. The following databases were searched: PubMed, PsychINFO, and ERIC Database. Data were charted according to Arksey and O'Malley's Scoping Review Framework. Eleven articles were included in the review and three primary themes emerged: (a) patients overwhelmingly prefer patient-centered care; (b) miscarriage is often overmedicalized, which leads to poor communication; and (c) informed decision-making related to one's miscarriage can improve patient experiences. Several gaps were also identified, including studies seeking physician perspectives on miscarriage communication, evaluation of standard care guidelines, and studies evaluating diverse patients' perspectives. This review highlights the need for patient-centered care that utilizes compassionate and accessible language and promotes informed decision-making. Future research should use quantitative methodologies and longitudinal designs to build upon these findings and improve patient experiences of miscarriage.

Introduction

Miscarriage and the subsequent bereavement period can be a painful yet common process for birthing people and their families. Miscarriage, or early pregnancy loss, is defined as the naturally occurring termination of pregnancy prior to 20 weeks of gestation (Prager et al., 2018). It is a common complication estimated to occur between 10–25% of pregnancies (Farren et al., 2016; Prager et al., 2018). Approximately 23 million miscarriages occur annually worldwide, though this number may be underestimated due to a lack of reporting (Quenby et al., 2021).

Women frequently report negative experiences with providers following pregnancy losses, indicating a potential lack of soft skills training among medical professionals (Radford & Hughes, 2015; Sanchez, 2001). Moreover, losses that occur early in pregnancy are often marked with disenfranchisement and little is done clinically to encourage an improved bereavement process (Kersting & Wagner, 2012). Grief and bereavement support can play a crucial role in helping women cope with their loss and navigate the complex emotions that arise. Such practices include offering counseling, therapy, and support groups, holding ceremonies and memorials for support and providing additional information or education on miscarriage healing (Lee et al., 2022; Madhu et al., 2019; Mercier et al., 2020).

Many women in the United States (US) are affected by miscarriage, and evidence suggests that poor clinical management can worsen these experiences. For instance, physician communication that is unclear or unsettling may act as an additional source of stress or anxiety for women, particularly when it comes to making decisions about one's miscarriage management (Brann et al., 2020; Wallace et al., 2017). Specifically, women who do not receive informative or supportive care when making care decisions faced increased anxiety and frustration because of their clinical encounters (Wallace et al., 2017). Moreover, when providers use complicated and/or vague language, patients are left even more distressed (Brann et al., 2020). Yet, assessments of healthcare communication during a miscarriage in the US are limited, particularly among adult women, and the few existing studies fail to evaluate healthcare interactions. A review of the existing literature is needed to synthesize what evidence has been developed and to identify what still needs to be explored.

Miscarriage background

Symptoms of miscarriage include vaginal spotting or bleeding, pain or cramping in the abdominal region, and fluid/tissue passing from the vagina (Mayo Clinic, 2021a). However, these symptoms do not necessitate a diagnosis of miscarriage as many healthy pregnancies can incur early-term spotting and cramping, and not all miscarriages are symptomatic (i.e., missed or silent miscarriages) (Chu et al., 2020). A miscarriage is diagnosed by a healthcare provider with

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a pelvic exam, ultrasound, or blood, tissue, or chromosomal testing (Mayo Clinic, 2021b).

Miscarriage can often be accompanied by both psychological and physiological consequences, including but not limited to post-traumatic stress disorder, anxiety, depression, scarring or adhesions, and recurrent miscarriage (Farren et al., 2016; Hooker et al., 2014; Larsen et al., 2013). The risk for subsequent miscarriage increases from 20% after one miscarriage to 43% after three or more consecutive losses (Dugas & Slane, 2022). Experiencing early pregnancy loss can also undermine a couple's confidence in their ability to reproduce successfully or their reproductive self-efficacy (Bhattacharya & Bhattacharya, 2009). While miscarriage can occur to anyone of reproductive age, those who are at higher risk include those older than 35 years and younger than 20, with partners over 40 years old, with very low or very high body-mass index, of Black ethnicity, and those who engage in risky health behaviors such as smoking, excessive alcohol consumption, or who are exposed to air pollutants or pesticides (Quenby et al., 2021).

Theoretical influences in miscarriage research

Several theoretical approaches have informed miscarriage research and healthcare practice around miscarriage diagnoses. For instance, Patient-centered communication (PCC) has long been considered a standard of care, particularly for potentially sensitive healthcare issues, such as miscarriage (Brown, 1999; Hashim, 2017). PCC describes strategies and behaviors providers are encouraged to use to promote mutuality, shared understandings, and shared decision-making with the patient (Brown, 1999). PCC often results in highly individualized care, pivotal to pregnancy loss care. PCC has been used to study patient care satisfaction during early pregnancy care, bad news delivery in miscarriage management, and outpatient programs for early pregnancy loss (Brann et al., 2020; Grégoire-Briard et al., 2022; van de Berg et al., 2018).

Similarly, frameworks related to informed decision-making have also been prominent in miscarriage research (Towle et al., 1999). Informed decision-making (IDM) requires informed patients (i.e., patients with information, expectations, and preferences), informed physicians (i.e., physicians who find and evaluate current evidence), and constructing a decision together in an agreed-upon way (Towle et al., 1999). IDM is used to "promote quality interactions with physicians, better knowledge about health conditions, trust of physicians, satisfaction with treatment decisions, and ultimately better treatment adherence and clinical outcomes" (Brann & Bute, 2017, p. 2269). It is beneficial in situations where one course of treatment is not inherently superior to another; such is the case with miscarriage management (i.e., expectant, medication, or surgical management) (Brann & Bute, 2017). Informed and shared decision-making models have been used to assess miscarriage treatment options from patient and provider perspectives (Ankum, 2001; Olesen et al., 2014).

Significance

Findings from this study will inform researchers of the work that needs to be done to enhance healthcare communication during a miscarriage. By synthesizing this literature, we are shedding light on the overlooked public health focus of miscarriage management in the US, and informing health educators and providers on the work that needs to be done to enhance this communication.

To our knowledge, this is the first study to appraise healthcare communication in the field of miscarriage management using a review. To improve miscarriage care in the healthcare setting, we need to identify the role of healthcare communication in this process. This study provides additional insight into the relevance of specific healthcare communication strategies, particularly those related to PCC. Furthermore, we identify existing gaps in the literature related to healthcare communication and pregnancy loss. Our results are expected to enhance communication in a healthcare setting during and after a miscarriage by synthesizing adult patient experiences from various miscarriage studies. For women at risk of having adverse downstream outcomes related to their miscarriage management, it is important to understand their experiences and how these healthcare interactions impact their life so we can tailor intervention and treatment resources using a meaningful approach.

Research questions

The present study aims to review the literature on healthcare communication and miscarriage related to adult women of reproductive age in the US. The study focuses on adult women's experiences due to the higher rate of fertility and pregnancy over 20 years of age (Morse, 2022). This review will identify and synthesize evidence relating to patient and provider perceptions of miscarriage communication and will identify gaps in the literature where research is still needed. We sought to answer the following research questions:

RQ1. What is known in the literature about experiences of healthcare communication during a miscarriage in the US?

RQ2. What gaps exist in the literature related to healthcare communication and miscarriage in the US?

Materials and methods

Design

A scoping review was conducted to review the recent literature related to communication and miscarriage in the US and identify existing knowledge gaps for future miscarriage research. A scoping review was selected because of its broader search strategy, which is efficient for understudied content (Munn et al., 2018). The Arksey and O'Malley (2002) scoping review framework guided this study, which promotes reproducibility, transparency, and reliability. PRISMA for scoping reviews (PRISMA-ScR) was also used to structure data collection. PRISMA-ScR is a reporting checklist that aids evidence synthesis and assesses the scope of literature on a topic (Tricco et al., 2018). Ethical concerns for the study are limited as it did

not require the participation of human subjects. Thus, IRB review and approval was not needed.

Search strategy & eligibility criteria

A systematic search of the following databases was conducted to gather original peer-reviewed research articles on communication and miscarriage: PubMed, PsychINFO, and ERIC Database (via EBSCOhost). All identified articles from the search were downloaded and transferred to a systematic review management software, Covidence, and all duplicates were removed. The following search terms, including MeSH terms, were used to identify the relevant articles: [Miscarriage OR "Perinatal Loss" OR "Early Pregnancy Loss" OR "Pregnancy Loss" OR "spontaneous abortion"] for miscarriage, [Communication OR "Communication patterns" OR "Patient-Provider Communication" OR "Healthcare Communication" OR "Physician-Patient Relations"] for communication experiences related to one's healthcare treatment, and ["Professional support" OR "Provider support"] to capture relevant content about communication needs.

Selection criteria

Articles were included in the review if they were original, peer-reviewed research conducted between January 2002 and June 2022 and met the following criteria: 1) the primary focus of the research was broadly related to experiences of miscarriage; 2) the research also measured/described outcomes related to communication; 3) the research utilized original quantitative, qualitative, or mixed methods methodology; and 4) the research was conducted in the US. Studies were excluded if they were not written or made available in English. Clinical drug trials, cellular biology studies, and book reviews were excluded.

A two-stage screening process was used to evaluate the relevance of the identified studies in the search. The first phase consisted of a title and abstract screening to preclude wasting resources on acquiring articles that did not meet the eligibility criteria. A second reviewer screened 5% of the articles by their abstract/title to validate the eligibility screening performed by the primary investigator. No conflicts were reported. The second phase included a full-text review of each study. Figure 1 outlines the study identification and selection process.

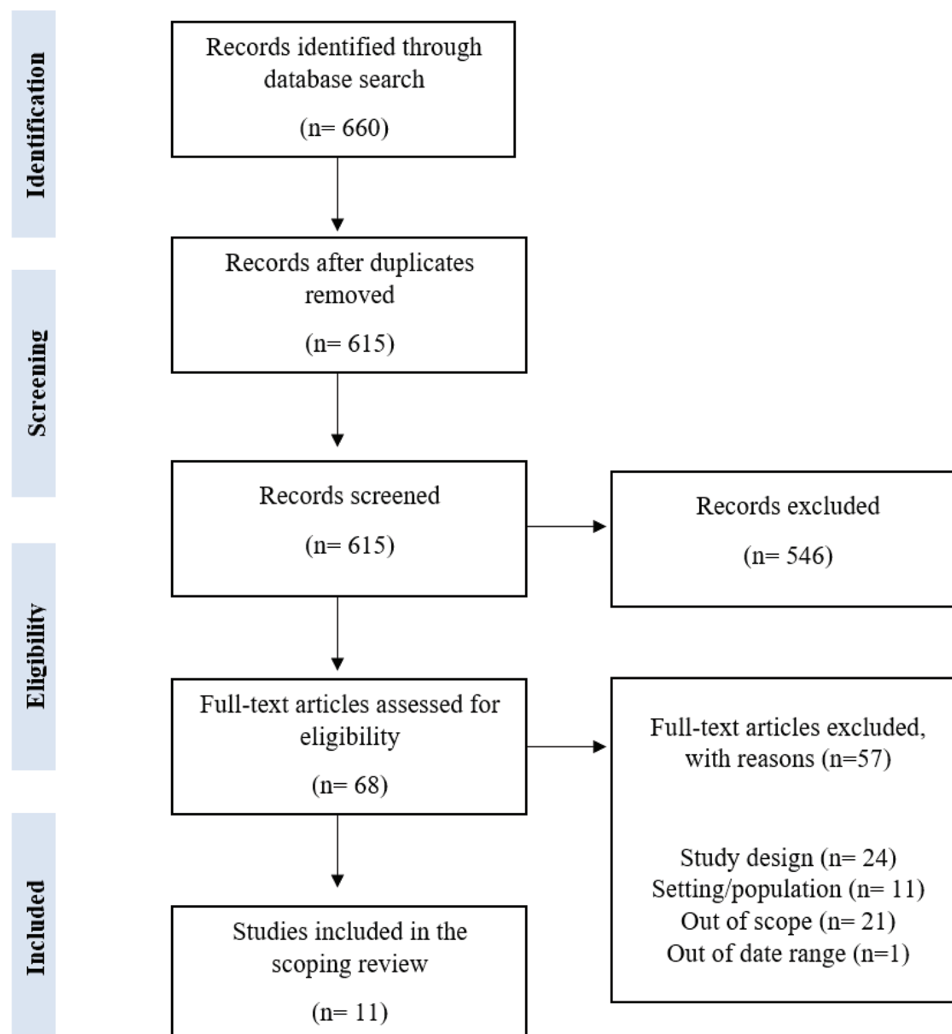

Figure 1. PRISMA diagram for selecting the empirical articles related to healthcare communication and miscarriage.

Data extraction

According to Arksey and O'Malley's (2002) scoping review framework, the data were charted in Excel. The following data points were extracted from each included study: author-(s), title, publication year, summary, research setting, participant demographics, research methods, measures/interventions, key findings, and limitations.

Data analysis

The data were compiled into a single spreadsheet in Excel for validation and coding. Following the charting of the data, a narrative account of the included studies was established to present any patterns in the literature. Using thematic analysis, studies were classified by emerging themes (Barnett-Page & Thomas, 2009; Vaismoradi et al., 2013). This approach entails translating free codes into descriptive themes and descriptive themes into analytic themes (Barnett-Page & Thomas, 2009). Table 1 summarizes the key findings related to these themes with exemplary quotes.

Results

Narrative summary

Eleven articles were included in the scoping review analysis. Of these 11, a qualitative approach was used in 9 studies, quantitative methods were used in one, and one employed a mixed methods approach. The articles were published from February 2005 to September 2021. Six studies recruited only female patients who had experienced a miscarriage; two assessed male partners of women who had a miscarriage, and three evaluated healthcare practitioners.

The introductions, sampling and analysis methods, and results were adequately explained in each of the 11 articles, and ethical or human subjects' concerns were also mentioned in all included studies. However, five articles did not address the study limitations within their discussions.

To answer our first research question, we categorized studies as pertaining to one of three themes that emerged in the literature. Below are the findings related to the themes: patient-centered communication, terminology/phrases, informed decision-making, male partner role, privacy "rules," and communicated sense-making.

Patient-centered communication

The central principles of PCC were prominently featured in much of the literature on miscarriage and healthcare communication. These studies demonstrate patient-centered, individualized, and empathetic care is highly beneficial to miscarriage experiences and may lessen grief following an early pregnancy loss (Brann et al., 2020). PCC may play such an impactful role in this process that evidence shows that when communication regarding miscarriage lacks aspects of PCC, patients report feeling invalidated and distressed (Meluch, 2021). Moreover, if the provider is unclear in their communication of what happened or if they are dismissive of emotional aspects of the experience, patients are left with unanswered questions or misassigned guilt or shame (Brann et al., 2020; Meluch, 2021). Meluch (2021) summarizes, "when the way a traumatic diagnosis is communicated feels invalidating, it can make the entire medical experience feel undermined [. . .] the way healthcare providers frame bad news is critical to how patients respond."

Additionally, providing PCC may also mean trying to include a patient's partner in the conversation. While miscarriage is often regarded as a women's health issue, male partners to women who have miscarriages report varying socioemotional effects following a pregnancy loss (Horstman et al., 2021; O'Leary & Thorwick, 2006). A study of male partners to pregnancy loss found that,

> When a baby dies, the anguish of the mother is visible to the world because she has the physical experience of pregnancy and childbirth. This does not happen for fathers. They describe feeling overlooked . . . 'I felt even doctors or whatever seemed to worry about [my wife] and not so much about me. But it was there, it was hard because you felt left out. (O'Leary & Thorwick, 2006, p. 80)

Table 1. Key findings and exemplary quotes supporting thematic findings.

Theme	Key Findings	Exemplary quote
Patient-Centered Communication	Patients overwhelmingly prefer patient-centered care (PCC); when PCC is not employed, patients are left feeling invalidated.	"[participants] recommended providers be empathetic, allow patients the opportunity to process the information, and actively check patient understanding . . . Even with these consistent suggestions for interactions, participants recommend that providers be mindful of the uniqueness of the situation to each patient" (Brann et al., 2020, p. 264)
Terminology/Phrases	Miscarriage can be overmedicalized, which can lead to perceptions of poor communication.	"[participants] adamantly recommended that providers be mindful of the language they use and specifically suggested avoiding medical jargon and emotionally charged language" (Brann et al., 2020, p. 261)"Take out contents; remove all the parts. I'm not an assembly. Like this isn't a factory" (Brann et al., 2020, p. 264) "Take out contents; remove all the parts. I'm not an assembly. Like this isn't a factory" (Brann et al., 2020, p. 264)
Informed Decision-making	Informed decision-making related to one's miscarriage can improve patient experiences.	"Women in our study strongly favored the ability to choose from among all treatment options – expectant care, medication management, and uterine aspiration – when faced with [early pregnancy loss]. They valued having options for this preference-sensitive decision, but also being supported by their provider in selecting the option that was best for them" (Wallace et al., 2017, p. 460)

The table above displays the three central themes that emerged from the data: patient-centered communication; terminology/phrases; and informed decision-making. One to two key findings are also displayed along with each theme and a supporting exemplary quote or two are displayed on the right column.

Primary elements of PCC include demonstrating empathy, creating space for patients to process, checking for understanding, and avoiding medical jargon and emotionally charged language (Brann et al., 2020). Empathetic care was emphasized and described in multiple articles from the review. For instance, Meluch (2021) suggests that healthcare providers do not have enough training to acknowledge *both* the physical and emotional pain of miscarriage. This is also evidenced in Miller et al. (2019) study of miscarriage care in emergency settings. The study found that patients who were treated in the emergency department at a northeastern university hospital were more likely to report a lack of clarity surrounding their diagnosis, inefficient care, and a varied experience with provider sensitivity compared to those who sought care in an ambulatory-only setting (Miller et al., 2019).

Roehrs et al. (2008) used open-ended questionnaires and semi-structured interviews with nurses ($n = 10$) from a birthing unit at a university hospital in the Rocky Mountain region to explore methods for addressing these concerns among healthcare providers. The nurses indicated that healthcare providers must "be calm, but accessible [and] be sensitive to family needs" (Roehrs et al., 2008, p. 634). Some participants also suggested that all providers take turns treating miscarriage patients in order to promote experience-based training and that orientations specific to miscarriage communication and conduct may be useful for improving care (Roehrs et al., 2008).

Finally, Brann and Bute (2017) used PCC concepts to guide their evaluation of medical interns ($n = 40$) discussing miscarriage with standardized patients (portrayed by training actors). Out of the 40 patient encounters assessed, only 8 (20%) interns properly explored patient concerns surrounding decision-making about their miscarriage (Brann & Bute, 2017). Additionally, only 8 (20%) interns provided complete support to their "patients" with comforting statements about their decision-making. Such statements included phrases like "one choice isn't any better or worse than another" and "I think you have made a good choice" (Brann & Bute, 2017, p. 2272).

Terminology/Phrases

Specificity with language and the ability to express empathy through words is crucial for achieving patient-centered care. The examined literature highlights how terminology and phrases used around miscarriage can impact how an individual processes their pregnancy loss (Brann et al., 2020, 2020; Meluch, 2021; Meyer, 2016; Wallace et al., 2017). For example, the use of ambiguous terms/diagnoses and medical jargon were both considered to have negatively affected the patients (Brann et al., 2020; Meluch, 2021; Wallace et al., 2017). Ambiguity from one's provider acted as a barrier to decision-making around miscarriage treatment, resulting in uncertainty influencing patients' ability to cope (Wallace et al., 2017). In a study of women who have had a miscarriage responding to prerecorded videos of medical interns delivering the news of a lost pregnancy, participants discussed their common dislike for medical terms like "fetal tissue, contents or parts" when referencing the miscarried baby (Brann et al., 2020). One participant stated, "Take out contents; remove all the parts. I'm not an assembly. Like this isn't a factory" (Brann et al., 2020, p. 264). Additionally, several studies have demonstrated that women who have a miscarriage strongly prefer the terms "miscarriage" or "early pregnancy loss" compared to "abortion" (Brann et al., 2020; Clement et al., 2019).

The language used in the healthcare setting around pregnancy loss has led to the discursive medicalization of miscarriage. Further, physicians' communication about miscarriage unavoidably invokes expectations that pregnancy, and thus, pregnancy loss, are medical events that require medical solutions (Brann et al., 2020). Brann et al. (2020) evaluated medical interns' ability to communicate a miscarriage diagnosis to trained medical actors. Their findings revealed several contradictory terms or phrases that can cause tension and confusion for patients experiencing a pregnancy loss (i.e., referring to miscarriage as a natural event in an attempt to comfort women while also sometimes describing miscarriage as an abnormality in pregnancy; or explaining to patients that the miscarriage is not their fault, while also stating that the cause cannot be determined) (Brann et al., 2020).

While providers should strive to improve miscarriage communication according to the findings in the literature, they must also acknowledge that pregnancy loss is highly individualized, and thus, comforting messages may vary depending on the value assigned to the miscarriage (Horstman et al., 2021; Meyer, 2016). For instance, Horstman et al. (2021) found that some memorable messages can be helpful and hurtful depending on the context of the loss. Common phrases like "this happens a lot" can be interpreted as being just another statistic *and* as validating because others are going through it, too (Horstman et al., 2021).

Informed decision-making

Findings also suggest that practicing informed decision-making (IDM) can positively impact one's miscarriage experience (Brann & Bute, 2017; Wallace et al., 2017). When interviewed about their miscarriage healthcare and treatment options, women overwhelmingly prefer having management options available (Wallace et al., 2017). In other words, "women preferred direct communication about their treatment options with honest and clear explanations about what to expect from each method" (Wallace et al., 2017, p. 460). Moreover, while women report the need to choose which option seems best suited, they also desire their provider's advice and support in that decision (Wallace et al., 2017). Overall, participants valued the experience that their healthcare providers had with women in similar situations and their knowledge about the patient's individual needs and histories (Wallace et al., 2017).

Brann and Bute (2017) describe IDM's critical aspects, including discussing each option's advantages and disadvantages, the uncertainties associated with treatments, the patient's role in making the decision, and the patient's concerns and preferences, among several other elements. In a study evaluating the use of IDM among 40 medical interns in a Midwestern hospital, not one intern engaged in complete IDM (i.e., the highest score was 13 out of 18 possible points using the IDM-18), indicating that a fully comprehensive

discussion never transpired (Brann & Bute, 2017). The aspects of IDM that were most frequently lacking were assessing the patient's understanding, exploring patient concerns, and exploring the effect of the decision on the context (Brann & Bute, 2017). Though this study suggests that interns are engaged in somewhat effective IDM behaviors, the findings indicate more comprehensive training may be required.

Gaps in the literature

To answer our second research question, we compiled a short list of topics and methodologies that remain unexplored in the miscarriage and healthcare communication research field in the US. Among other subjects, the primary aspects of research missing in the current literature include experienced physicians' perspectives of communication, evaluations of care guidelines and implementation of these guidelines, and studies evaluating diverse patient preferences and perspectives of PCC. The extant research on miscarriage communication in the US offers perspectives from women who have experienced miscarriage, their partners, and nurses. Additionally, as discussed earlier, several studies assessed interactions between medical interns and trained actors; however, miscarriage care would benefit from collecting direct perspectives of physician experiences with miscarriage patients via interviews or surveys, both in their training (i.e., internships/fellowships) and beyond.

A lack of care evaluation studies was apparent from our search. Professional guidelines and training for miscarriage communication among healthcare providers are inconsistent and thus require systematic evaluation. Evaluations of the training materials and implementation of training programs are needed to assess communication standards across the healthcare sector.

Finally, research on patient preferences and miscarriage experiences has been conducted with primarily homogeneous groups. Moreover, existing studies are composed mainly of non-Hispanic white, highly educated participants who were trying to conceive (Brann et al., 2020; Horstman et al., 2021; Roehrs et al., 2008).

We also identified several gaps in the methodologies used to study miscarriage and healthcare communication. For instance, it was overwhelmingly clear that longitudinal studies are missing in miscarriage research in the US. Studies within our review pointed out the limitations in their cross-sectional study designs and called for longitudinal studies to explore any potential causal pathways. The literature is also largely qualitative and lacks the generalizability of results. Therefore, miscarriage care and communication would likely benefit from more quantitative research studies with more extensive and diverse samples.

Discussion

This scoping review synthesized original peer-reviewed research on miscarriage and healthcare communication in the US. Three primary themes emerged from the eleven articles related to patient-centered care, terminology and phrases, and informed decision-making. According to the literature, patients overwhelmingly prefer PCC and indicate that when their care lacks critical aspects of PCC, they feel invalidated. Also, the terminology used to describe miscarriage by medical professionals can lead to overmedicalized and less fulfilling interactions. This often results in patient perceptions of poor communication from their healthcare providers. Lastly, when providers promote informed decision-making related to miscarriage treatment, patient experiences improve. The findings emphasize the value of PCC and IDM constructs as a theoretical framework for clinical practice and miscarriage research.

The findings from this review could potentially benefit multiple audiences. Firstly, the information offers direct guidance for clinicians to improve miscarriage care and communication skills for compassionate care. The three themes were supported throughout the literature and indicate a need to better train healthcare professionals when it comes to delivering the news of a miscarriage in a way that prevents further trauma/stress. If these findings are applied in clinical settings, miscarriage care can be enhanced and thus, those who experience miscarriage can benefit from improved clinical support. The review's findings could also aid researchers and academics who seek to understand and improve miscarriage care experiences. The synthesis of the literature and identification of knowledge gaps provides a roadmap for future research aimed at limiting the negative consequences of miscarriage and establishing care that promotes healthy bereavement periods. Topics that remain unexplored in the US include physician perspectives of communication, evaluations of care guidelines, and studies representing diverse patient populations and their preferences for miscarriage care. Existing miscarriage care and communication guidelines must be evaluated for efficacy in limiting negative psychosocial and physical health outcomes following a loss. Given the disproportionate rates of adverse pregnancy outcomes among individuals who identify as Black, Indigenous and People of Color (BIPOC), future research should focus in on the experiences of miscarriage among BIPOC women, with particular attention on cultural considerations and discrimination in the healthcare setting. There are also theoretical considerations with examining PCC experiences of BIPOC women using an antiracism framework such as Public Health Critical Race Praxis (Ford & Airhihenbuwa, 2010). Further, longitudinal studies are needed to assess healthcare communication during miscarriage and grief periods following these interactions. For instance, researchers should seek to understand how miscarriage care and communication influence grief patterns and other psychosocial factors over time. More quantitative studies with larger and more diverse samples are also needed to identify statistical relationships and establish generalizable findings related to miscarriage care and health outcomes. Finally, the literature primarily focuses on experiences of miscarriage by adult women. Evidence suggests that adolescents experience miscarriage uniquely, and thus, research would benefit from exploring healthcare interactions of adolescents experiencing miscarriage (Darnell et al., 2018).

Limitations and strengths

There are limitations to consider with this study. While scoping reviews can offer a broad synthesis of existing literature, they cannot formally evaluate the quality of evidence as they often gather information from a wide range of methodologies (Sucharew & Macaluso, 2019). Additionally, our sample size of included articles was relatively small given the understudied nature of miscarriage communication research. We also limited our study to peer-reviewed, original research that omitted work in the gray literature. Moreover, using only specific databases available through the institutional affiliation may have resulted in a narrower literature search. Finally, the search was limited to publications available in English, potentially leading to a language bias and an exclusion of relevant content published in another language. However, this possibility was considerably small, given that the study assessed US healthcare communication.

Our scoping review design did have several strengths. Primarily, the systematic scoping review is good for broadly synthesizing unexplored topics (Pham et al., 2014). Further, using two systematic frameworks (i.e., Arksey and O'Malley's (2002) scoping review framework and PRISMA-ScR) helped to establish the rigorous methodology and reporting/reproducibility of the results. Additionally, a second reviewer was used to perform the first phase of sorting articles by their title and abstract for 5% of the total articles to validate the eligibility categorizing performed by the primary investigator. Both reviewers used citation management software, Covidence, which further standardized the process.

Conclusions

This study highlights the need for individualized, patient-centered care that promotes informed decision-making and utilizes compassionate and accessible language when discussing miscarriages with patients. Though the literature in this review was largely qualitative, the emerging themes were supported by numerous studies. For example, individuals who experience miscarriage perceive their experiences as less distressing when they are met with comprehensive and empathetic care (Brann et al., 2020; Wallace et al., 2017). Future research should use quantitative methodologies and longitudinal designs to build upon these findings and further assess healthcare communication around a miscarriage, particularly among adolescent and BIPOC populations.

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References

Ankum, W. M. (2001). Management of spontaneous miscarriage in the first trimester: An example of putting informed shared decision making into practice. *BMJ*, *322*(7298), 1343. https://doi.org/10.1136/bmj.322.7298.1343

Arksey, H., & O'Malley, L. (2002). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, *8*(1), 19–32. https://doi.org/10.1080/1364557032000119616

Barnett-Page, E., & Thomas, J. (2009). Methods for the synthesis of qualitative research: A critical review. *BMC Medical Research Methodology*, *9*(1), 59. https://doi.org/10.1186/1471-2288-9-59

Bhattacharya, S., & Bhattacharya, S. (2009). Effects of miscarriage on future pregnancies. *Women's Health*, *5*(1), 5–8. https://doi.org/10.2217/17455057.5.1.5

Brann, M., & Bute, J. J. (2017). Communicating to promote informed decisions in the context of early pregnancy loss. *Patient Education and Counseling*, *100*(12), 2269–2274. https://doi.org/10.1016/j.pec.2017.06.016

Brann, M., Bute, J. J., & Foxworthy Scott, S. (2020). Qualitative assessment of bad news delivery practices during miscarriage diagnosis. *Qualitative Health Research*, *30*(2), 258–267. https://doi.org/10.1177/1049732319874038

Brown, S. J. (1999). Patient-centered communication. *Annual Review of Nursing Research*, *17*(1), 85–104. https://doi.org/10.1891/0739-6686.17.1.85

Bute, J. J., & Brann, M. (2019). Tensions and contradictions in interns' communication about unexpected pregnancy loss. *Health Communication*, *35*(5), 529–537. https://doi.org/10.1080/10410236.2019.1570429

Chu, J. J., Devall, A. J., Beeson, L. E., Hardy, P., Cheed, V., Sun, Y., Roberts, T. E., Ogwulu, C. O., Williams, E., Jones, L. L., La Fontaine Papadopoulos, J. H., Bender-Atik, R., Brewin, J., Hinshaw, K., Choudhary, M., Ahmed, A., Naftalin, J., Nunes, N. . . . Coomarasamy, A. (2020). Mifepristone and misoprostol versus misoprostol alone for the management of missed miscarriage (MifeMiso): A randomised, double-blind, placebo-controlled trial. *The Lancet*, *396*(10253), 770–778. https://doi.org/10.1016/S0140-6736(20)31788-8

Clement, E. G., Horvath, S., McAllister, A., Koelper, N. C., Sammel, M. D., & Schreiber, C. A. (2019). The language of first-trimester nonviable pregnancy. *Obstetrics & Gynecology*, *133*(1), 149–154. https://doi.org/10.1097/AOG.0000000000002997

Darnell, W. H., Buckley, A. N., & Scott, A. M. (2018). "It's not something you expect a 15-year- old to be sad about": Sources of uncertainty and strategies of uncertainty management among adolescent women who have experienced miscarriage. *Health Communication*, *34*(14), 1795–1805. https://doi.org/10.1080/10410236.2018.1536947

Dugas, C., & Slane, V. H. (2022). Miscarriage. In *StatPearls [Internet]*. Treasure Island (FL): StatPearls Publishing.

Farren, J., Jalmbrant, M., Ameye, L., Joash, K., Mitchell-Jones, N., Tapp, S., Timmerman, D., & Bourne, T. (2016). Post-traumatic stress, anxiety and depression following miscarriage or ectopic pregnancy: A prospective cohort study. *British Medical Journal Open*, *6*(11), e011864. https://doi.org/10.1136/bmjopen-2016-011864

Ford, C. L., & Airhihenbuwa, C. O. (2010). The public health critical race methodology: Praxis for antiracism research. *Social Science & Medicine*, *71*(8), 1390–1398. https://doi.org/10.1016/j.socscimed.2010.07.030

Grégoire-Briard, F., Horwood, G., Berger, P., Gomes, M., Davis, L., & Black, A. (2022). A patient-centered approach to early pregnancy loss: The first 18 months of a Canadian outpatient program for early pregnancy loss (OPEL). *Journal of Obstetrics and Gynaecology Canada*, *44*(5), 503–507. https://doi.org/10.1016/j.jogc.2021.11.018

Hashim, M. J. (2017). Patient-centered communication: Basic skills. *American Family Physician*, *95*(1), 29–34.

Hooker, A. B., Lemmers, M., Thurkow, A. L., Heymans, M. W., Opmeer, B. C., Brölmann, H. A. M., Mol, B. W., & Huirne, J. A. F. (2014). Systematic review and meta-analysis of intrauterine adhesions after miscarriage: Prevalence, risk factors and long-term reproductive outcome. *Human Reproductive Update*, *20*(2), 262–278. https://doi.org/10.1093/humupd/dmt045

Horstman, H. K., Morrison, S., McBride, M. C., & Holman, A. (2021). Memorable messages embedded in men's stories of miscarriage: Extending communicated narrative sense-making and memorable message theorizing. *Health Communication*, *38*(4), 742–752. https://doi.org/10.1080/10410236.2021.1973718

Kersting, A., & Wagner, B. (2012). Complicated grief after perinatal loss. *Dialogues in Clinical Neuroscience*, *14*(2), 187–194. https://doi.org/10.31887/DCNS.2012.14.2/akersting

Larsen, E. C., Christiansen, O. B., Kolte, A. M., & Macklon, N. (2013). New insights into mechanisms behind miscarriage. *BMC Medicine*, *11*(1), 154. https://doi.org/10.1186/1741-7015-11-154

Lee, L., Ma, W., Davies, S., & Kammers, M. (2022). Toward optimal emotional care during the experience of miscarriage: An integrative review of the perspectives of women, partners, and health care providers. *Journal of Midwifery & Women's Health*, *68*(1), 52–61. https://doi.org/10.1111/jmwh.13414

Madhu, B., Weaver, A., Grunzke, K., Shields, E., Buter Tobah, Y., & Cunningham, M. (2019). Experiences of patients in the presence of the bereavement support after a perinatal loss. *Pediatrics*, *144*, 444. https://doi.org/10.1542/peds.144.2MA5.444

Mayo Clinic. (2021a). Miscarriage: Overview. https://www.mayoclinic.org/diseases-conditions/pregnancy-loss-miscarriage/symptoms-causes/syc-20354298

Mayo Clinic. (2021b). *Miscarriage: Diagnosis & treatment*. https://www.mayoclinic.org/diseases-conditions/pregnancy-loss-miscarriage/diagnosis-treatment/drc-20354304

Meluch, A. L. (2021). Waiting to be seen: Provider-patient communication in the emergency room about miscarriage. *Health Communication*, *37*(11), 1452–1454. https://doi.org/10.1080/10410236.2021.1901421

Mercier, R. J., Senter, K., Webster, R., & Riley, A. H. (2020). Instagram users' experiences of miscarriage. *Obstetrics & Gynecology*, *135*(1), 166–173. https://doi.org/10.1097/AOG.0000000000003621

Meyer, M. D. E. (2016). The paradox of time post-pregnancy loss: Three things not to say when communicating social support. *Health Communication*, *31*(11), 1426–1429. https://doi.org/10.1080/10410236.2015.1077414

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

Morse, A. (2022). *Stable fertility rates 1990-2019 mask distinct variation by age*. https://www.census.gov/library/stories/2022/04/fertility-rates-declined-for-younger-women-increased-for-older-women.html

Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, *18*(143). https://doi.org/10.1186/s12874-018-0611-x

O'Leary, J., & Thorwick, C. (2006). Fathers' perspectives during pregnancy, postperinatal loss. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *35*(1), 78–86. https://doi.org/10.1111/j.1552-6909.2006.00017.x

Olesen, M. L., Graungaard, A. H., & Husted, G. R. (2014). Deciding treatment for miscarriage – experiences of women and healthcare professionals. *Scandinavian Journal of Caring Sciences*, *29*(2), 386–394. https://doi.org/10.1111/scs.12175

Pham, M. T., Rajić, A., Greig, J. D., Sargeant, J. M., Papadopoulos, A., & McEwen, S. A. (2014). A scoping review of scoping reviews: Advancing the approach and enhancing the consistency. *Research Synthesis Methods*, *5*(4), 371–385. https://doi.org/10.1002/jrsm.1123

Prager, S., Dalton, V. K., & Allen, R. H. (2018). ACOG practice bulletin no. 200: Early pregnancy loss. *American College of Obstetricians and Gynecologists*, *132*(5), e197–e207. https://doi.org/10.1097/AOG.0000000000002899

Quenby, S., Gallos, I. D., Dhillon-Smith, R. K., Podesek, M., Stephenson, M. D., Fisher, J., Brosens, J. J., Brewin, J., Ramhorst, R., Lucas, E. S., McCoy, R. C., Anderson, R., Daher, S., Regan, L., Al-Memar, M., Bourne, T., MacIntyre, D. A., Rai, R., Christiansen, O. B. . . . Coormanarasamy, A. (2021). Miscarriage matters: The epidemiological, physical, psychological, and economic costs of early pregnancy loss. *Lancet (London, England)*, *397*(10285), 1658–1667. https://doi.org/10.1016/S0140-6736(21)00682-6

Radford, E. J., & Hughes, M. (2015). Women's experiences of early miscarriage: Implications for nursing care. *Journal of Clinical Nursing*, *24*, 1457–1465. https://doi.org/10.1111/jocn.12781 11–12

Roehrs, C., Masterson, A., Alles, R., Witt, C., & Rutt, P. (2008). Caring for families coping with perinatal loss. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *37*(6), 631–639. https://doi.org/10.1111/j.1552-6909.2008.00290.x

Sanchez, N. A. (2001). Mothers' perceptions of benefits of perinatal loss support offered at a major university hospital. *The Journal of Perinatal Education*, *10*(2), 23–30. https://doi.org/10.1624/105812401X88165

Sucharew, H., & Macaluso, M. (2019). Methods for research evidence synthesis: The scoping review approach. *Journal of Hospital Medicine*, *14*(7), 416–418. https://doi.org/10.12788/jhm.3248

Towle, A. T., Godolphin, W., Greenhalgh, T., & Gambrill, J. (1999). Framework for teaching and learning informed shared decision making commentary: Competencies for informed shared decision making commentary: Proposals based on too many assumptions. *International Journal of Offshore and Polar Engineering*, *319*(7212), 766–771. https://doi.org/10.1136/bmj.219.7212.766

Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C. . . . Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, *159*(7), 467–473. https://doi.org/10.7326/M18-0850

Vaismoradi, M., Turenen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, *15*(3), 398–405. https://doi.org/10.1111/nhs.12048

van de Berg, M. M. J., Dancet, E. A. F., Erlikh, T., van der Veen, F., Goddijn, M., & Hajenius, P. J. (2018). Patient-centered early pregnancy care: A systematic review of quantitative and qualitative studies on the perspectives of women and their partners. *Human Reproduction Update*, *24*(1), 106–118. https://doi.org/10.1093/humupd/dmx030

Wallace, R., DiLaura, A., & Dehlendorf, C. (2017). "Every person's just different": Women's experiences with counseling for early pregnancy loss management. *Women's Health Issues*, *27*(4), 456–462. https://doi.org/10.1016/j.whi.2017.02.008