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Trends of concept analysis in nursing science with Walker and Avant	10/1/2025
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#### Abstract

Walker and Avant have been widely known in guiding researchers toward publishing concept analysis articles. However, limited studies have explored the trends of concept analysis within the nursing context. This topic is particularly relevant today as it can inspire and inform future concept analysis publications for professional nursing. This study utilized a literature review design to examine the evolution of concept analysis in nursing. A total of 54 articles were identified through a systematic search across six databases. These articles were categorized into four key themes: psychological responses, healthcare system improvement, behavior, and patient-focused concepts. A comprehensive figure was developed to summarize how each concept was defined by scholars, and trends over a five-year period were analyzed. The findings revealed that psychological responses were the most frequently studied theme and vice versa, research focusing on behavior showed a decline over time. Despite this trend, patient-centered concepts demonstrated consistent attention throughout the period. The study also highlighted a consistent emphasis on understanding psychological impacts and promoting patient involvement in decision-making processes. Based on these findings, future research should focus on developing caring interventions that address patients' psychological needs. Such research will further strengthen the role of nursing in fostering holistic innovation care.

Keywords: concept analysis, future publication, holistic innovation, nursing science, healthcare system

#### Introduction

Concept analysis serves as a method to refine and develop these concepts then making them more applicable to both theoretical and practical settings (Meleis, 2018; Richmond et al., 2022). In nursing, concepts represent the foundational elements that shape theoretical frameworks, guide clinical practice, and inform research (Foley & Davis, 2017). Examining the components and attributes of a concept contributes to a deeper understanding of its relevance in nursing (Mottian et al., 2022). The importance of this endeavor lies in its ability to bridge theoretical constructs with real-world practice (Meleis, 2018). Concept analysis involves systematically dissecting and clarifying the meaning of terms or ideas central to nursing science (Carbogim et al., 2016). Through this process, researchers can define, refine, and further develop concepts to improve their utility in clinical judgment, research methodologies, and interdisciplinary communication (Combs & Heaton, 2016). For instance, understanding concepts such as "caring," "resilience," or "patient-centered care" in a nuanced way allows nurses to implement evidence-based practices effectively and tailor interventions to meet individual patient needs. Despite its importance, the literature suggests a gap in reporting the trends and methodologies employed in concept analysis studies within the nursing field.

One of the most widely used frameworks for concept analysis in nursing is Walker and Avant's structured approach (Walker & Avant, 1994). This method offers a systematic process for identifying the defining attributes, antecedents, and consequences of a concept. Furthermore, the concept makes it highly effective for refining complex terms into actionable components in nursing practice. Walker and Avant's method provides clarity and structure to identify gaps and inconsistencies in the literature of nursing science (Combs & Heaton, 2016). For this reason, the study on the trends of concept analysis in nursing science using Walker and Avant's approaches is crucial due to the existing gaps in the literature regarding the application and evolution of nursing concepts. While there has been considerable research on various nursing theories and practices, there remains a lack of comprehensive reviews that systematically analyze how these concepts have been defined, refined, and operationalized over time. This gap is particularly significant as nursing is a dynamic field that continually adapts to new challenges and paradigms in healthcare (Mold, 2022). A thorough



understanding of concept analysis through the lens of Walker and Avant's methodology can lead to more standardized definitions and applications of key nursing concepts (Endacott, 1997). This standardization is essential for ensuring consistency in nursing education, research, and practice (Dimmer et al., 2024). As nursing increasingly embraces evidence-based practice, the clarity and precision of concepts such as care, empathy, and patient-centeredness become paramount. Identifying trends and gaps in the literature can inform the development of educational curricula and navigate the complexities of healthcare practice (**Figure 1**).



Figure 1. Illustration of healthcare practice (Courtesy of www.unsplash.com).

Despite the frequent use of this method, there is limited exploration of the trends in its application and how it contributes to the broader evolution of nursing concepts. This lack of comprehensive analysis creates an urgent need to evaluate how the Walker and Avant approach has been employed over time and its impact on nursing research and practice Pinto-Foltz & Logsdon, 2008). The urgency of conducting this review lies in addressing several critical gaps. First, there is limited insight into the specific themes and focus areas that have emerged over the years. Understanding these trends can inform future research priorities and guide the application of concepts in practice. Second, with the evolving nature of healthcare and nursing roles, it is essential to ensure that foundational concepts remain relevant and applicable in diverse and dynamic settings. Without a clear understanding, the nursing discipline risks stagnation in its theoretical and practical advancements. This literature review focuses on analyzing five years of nursing studies that employed Walker and Avant's method for concept analysis. The study aims to identify the types of concepts most commonly studied, the trends in thematic focus, and the gaps that need to be addressed to advance nursing science. This review provides a critical evaluation of the selected themes and highlights the areas where additional research is needed to refine and expand the application of concepts in clinical and educational settings.

#### Method

The literature review design utilized in this study highlights how concept analysis has significantly advanced theoretical understanding within nursing (Rodgers et al., 2018). The review illustrates the evolution of nursing theory and its practical applications across diverse healthcare contexts by systematically examining concept analysis papers. Concept analysis serves as a foundational method for clarifying and refining key concepts that underpin nursing theories, practices, and research (Gunawan et al., 2023). In terms of eligibility criteria as an initial set of papers for review, a systematic search strategy was developed to identify relevant studies, focusing on electronic sources published between 2007 and 2012. This timeframe was chosen to explore the evolution of concepts used during this period, providing a comprehensive understanding of the topic. The databases selected for this review—PubMed, Embase, Cochrane, Ovid, CINAHL, and Web of Science—were chosen to ensure broad coverage of relevant literature in the field. The search strategy involved prioritizing common terms across databases, utilizing platforms like MeSH (Medical Subject Headings) and Emtree to identify related terms. These controlled vocabularies allowed for more efficient searches by providing synonyms and organized terminology. The search terms on database used included "concept analysis," "Walker and Avant," "nursing,"

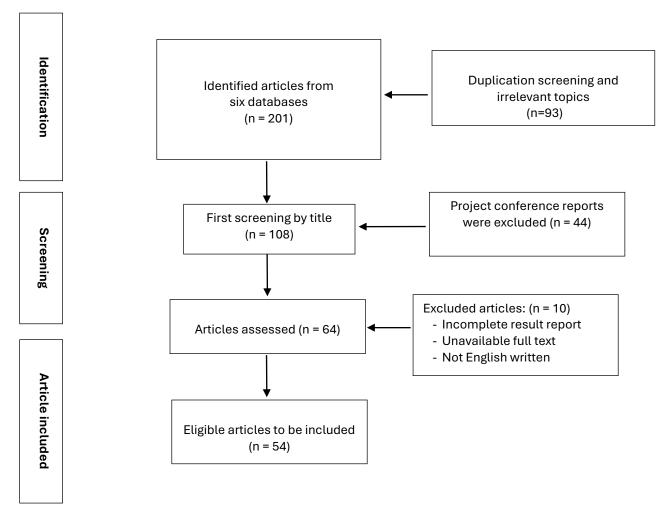
A PRISMA flow chart was used to effectively identify the papers to be included in the review, applying screening as well as inclusion and exclusion criteria (Page et al., 2021). The full electronic search process was conducted meticulously, with duplicate papers eliminated to ensure accuracy. Data extraction focused on relevant papers, summarizing the concept definitions provided by each scholar and organizing the findings into four distinct categories (Afifi et al., 2023; Indrayani et al., 2024). This methodical approach enhances the reliability of the review and ensures that the most pertinent information contributes to a richer understanding of concept analysis in nursing. Categorizing and synthesizing findings from various studies allows for a clearer identification of trends and gaps within the literature (Shaheen et al., 2023). This thorough examination highlights the evolution of key nursing concepts and emphasizes their practical applications in clinical settings. Moreover, the structured data extraction process facilitates the comparison of different concept analyses and provides insights into how these concepts are operationalized across diverse healthcare contexts. This comprehensive understanding supports the advancement of evidence-based nursing practice, promoting improved patient outcomes and nurturing a culture of continuous learning within the nursing profession.

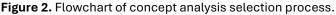
#### Results

Out of the 201 articles initially identified, a total of 54 were included in the review. The search methodology and the inclusion criteria are detailed below (Figure 2). The finding of this review is categorized into four categories. Through a systematic search, a total of 54 articles were identified across six databases. The concept was categorized into specific themes. A comprehensive concept in descriptive text was created to summarize how researchers or scholar define each concept. Notably, the trend in nursing science publications started with only four articles in 2007, but this number increased to more than eight articles per year. The finding reflects a steady growth in publication over time, which aligns with the ongoing development of knowledge. This trend represented that nursing concepts have been progressively improving each year (Meleis, 2018). The identified concepts were subsequently grouped into distinct categories and further classified into four primary themes: psychological response, healthcare system improvement, behavior, and patient-focused concepts (Figure 3). The rationale for determining these themes was based on the relevance of each concept's definition to the respective theme. The figure 3 illustrate the evolving trend in concept analysis over the year earliest to the latest. For instance, between 2007 and 2008, the category of psychological response was more frequently studied compared to other categories. Over time, however, the focus on behavior gradually decreased. Despite this, the psychological response and patient-centered concepts remained consistent areas of focus throughout the five-year period.

The retrieved 54 articles were described based on the earliest and most recent years, as the following detail. Concept 1. Postoperative recovery: the process that requiring energy of regaining to normalcy and the wholeness after surgery. Concept 2. Interactive teaching: A two-way teaching process where participants actively engage, often through answering questions. Concept 3. Adherence and weight loss: A structural commitment to a process of weight loss, including dietary changes and physical exercise. Concept 4. Preconceptions: Biases or judgments formed before an event occurs. Concept 5. Compassion: empathy, sympathy, dan caring that involved in a moral virtue. Concept 6. Selfmutilation: very often impact by an emotional distress due to mental disturbance, particularly, leading to self-injury. Concept 7. Spiritual well-being: An awareness of the needs in spiritual and the meaning and purpose of life, which enhance spiritual care. Concept 8. Survivorship: The ability to cope and thrive after a challenging or unhealthy life experience. Concept 9. Civility: A respectful attitude toward fellow citizens. Concept 10. Loneliness: The feeling of being isolated or

alone. Concept 11. Relocation stress: The stress experienced when an individual moves from one environment to another. Concept 12: Letting go before death: The psychological shift that occurs when preparing for the death of a loved one. Concept 13: Art of nursing: The unique development of human function within the nursing profession. Concept 14: Psychological acculturation: The psychological and cultural adaptation of an individual to a new cultural environment. Concept 15. Malpractice: Professional negligence in providing healthcare services. Concept 16. Nursing care: The practice of delivering care grounded in nursing knowledge. Concept 17: Contamination: Exposure to harmful substances such as chemicals, food, waste, or water. Concept 18. Stigma towards mental illness: The negative societal perceptions and marks associated with mental health issues. Concept 20. Continence and Incontinence: The ability to control or inability to control or bladder functions (Alvin et al., 2007; Jenkins et al 2012; Ridley, 2007; Leh, 2007; Shay, 2008; Hicks & Hink, 2008; Pecks, 2008; Clark & Carnosso, 2008; Gloria & Carla, 2009; Lowey, 2008; Son et al, 2008; Ruth, 2009; Deborah, 2008; Green & Polk, 2009; Weld & Garmon-Bibb, 2009; Dalpezzo, 2009; Hesse, 2009; Pinto-Foltz & Logsdon, 2008).





Concept 21. Hope in early-stage dementia: The expectation and desire for positive outcomes during the early stages of dementia. Concept 22. Spiritual crisis: A profound form of grief or loss related to spiritual beliefs. Concept 23. Post-traumatic stress: The stages of psychological distress that occur after experiencing trauma. Concept 24. Health-related quality of life: An individual's perception of their overall health, influenced by various external factors. Concept 25. Cognitive artifact: Tools or displays that aid in thought processes and enhance knowledge. Concept 26. Decisional involvement: Participation in making judgments or decisions, particularly related to practice or policy. Concept 27. Patient

navigator role: A role that facilitates support from peers, families, and nurses to guide individuals through healthcare processes. Concept 28. Intimidation: A state of feeling threatened regarding personal or family safety. Concept 29. Dine Hozho: Achieving balance in physical, mental, spiritual, and environmental health. Concept 30. Maternal-infant bonding: Signs that indicate the emotional connection between a mother and her child. Concept 31. Women's toileting behavior: The social and biological mechanisms involved in bladder emptying among women. Concept 32. Medication communication: Promoting interaction among patients, medical professionals, and families regarding medication use. Concept 33. Dilemmas: Situations where it is difficult to choose between equally unsatisfactory alternatives. Concept 34. Self-confidence: The belief in one's own skills and abilities, and the trust in oneself. Concept 35. Suicidal behaviors: Behaviors linked to external pressures and internal emotional crises that could lead to self-harm. Concept 36. Learning strategy in education: Approaches to fostering evaluation, participation, and reflection in the educational process. (Agrimson & Taft, 2009; Dugger, 2010; Cotter, 2009; 2001; McLane et al., 2010; Kowalik & Yoder, 2010; Michelle, 2010; Altaweli & Roberts, 2010; Pederson & Hack, 2010; Lamontagne, 2010; Wang & Palmer, 2010; Manias, 2010; Chiaranai, 2011; Perry, 2011; Sun, 2011; Bland et al., 2011).

Concept 37. Managerial coaching: A structured relationship aimed at enhancing knowledge and performance between staff nurses and managers. Concept 38. Participation: Active involvement in activities or processes. Concept 39. Overcoming: Achieving success over failure or overcoming challenges. Concept 40. Acculturation: The process of social, psychological, and cultural adjustment to a new environment. Concept 41. Nurses' job satisfaction: The emotional connection and attitudes employees hold toward their nursing profession. Concept 42. Tolerance: The willingness to accept or allow behaviors or practices differing from one's own. Concept 43. Abuse in healthcare: When patients experience harm, neglect, or devaluation during healthcare interactions. Concept 44. Suboptimal care: Delays or inadequacies in patient care management. Concept 45. Help-seeking behavior: The process of seeking external help through intentional interactions to address personal issues. Concept 46. Role stress: The stress resulting from uncertainty about one's role and responsibilities. Concept 47. Heterosexism: The belief in the superiority of heterosexuality over nonheterosexual orientations. Concept 48. Humor: A coping mechanism that fosters positive emotional expression and social bonding. Concept 49. Motivational interviewing: A technique used to support collaborative partnerships in healthcare. Concept 50. Self-efficacy: The belief in one's capacity to achieve specific tasks or goals. Concept 51. Case management role confusion: Uncertainty about job responsibilities and objectives within case management roles. Concept 52. Nurse Manager Engagement: A measure of how actively nurse managers are involved in the work environment and organizational processes. Concept 53. Perception: A person's awareness and understanding of their own experiences. Concept 54. Compassion fatigue and effects: A condition of emotional exhaustion and diminished empathy, often as a result of caregiving roles (Batson & Yoder, 2012; Hoogsteen & Woodgate, 2010; Brush et al., 2011; Hasan & Leonie, 2008; Sriratanaprapat & Songwathana, 2011; More & Walker, 2011; Brüggemann et al, 2012; Quirke et al, 2011; Cornally & McCarthy, 2011; Riahi, 2011; Morrison & Dinkel, 2012; Chittenden, 2012; Heale & Griffin, 2009; Gray & White, 2012; Gray, 2012; McDonald, 2012; Jenkins & Warren, 2012).

Four categories were subsequently created after analyzing all retrieved articles. The category represents the domains of healthcare system improvement, behavior, psychological response, and patient-centered concepts (Figure 3). Psychological Response (Category 1): Refers to the reactions of individuals, including those influenced by traumatic events, which may affect beliefs and lead to negative or emotional responses (Newman, 2001). Healthcare System Improvement (Category 2): Involves enhancing health outcomes, ensuring financial fairness, and optimizing the efficiency and effectiveness of healthcare for overall well-being (WHO, 2007). Behavior (Category 3): Describes the responses (both actions and inactions) of individuals, encompassing their overall behavior in response to various life circumstances (Elizabeth et al., 2014). Category of Patient-Focused Concept (Category 4): Focuses on the involvement of patients in their own care, emphasizing their active participation in healthcare decisions and granting them greater control over their treatment (Lathrop et al., 1991).

#### Discussion

The review documented that the study of psychological responses was particularly prominent among 54 articles. In contrast, studies focusing on behavior gradually is decreased over time. Furthermore, patient-centered concepts remained a consistent focus throughout the period. The prioritization of patient care in nursing practice reflects the core mission of the profession such as physical, emotional, social, and psychological needs (Ambushe et al., 2023). Nurses perform an essential function in ensuring that care delivery aligns with evidence-based practices and adapts to the unique needs (Roberts et al., 2023). This emphasis is driven by the increasing complexity of healthcare where outcomes are

determined by quality of care (Connor et al., 2023). Prioritizing patient care contribute to improved recovery rates, enhanced patient satisfaction, and reduced healthcare disparities. Moreover, the evolving healthcare professional underscores the need for nurses to maintain patient care as a fundamental priority (Rawlinson et al., 2021). These findings emphasis on understanding the psychological impacts of healthcare and patient involvement in decision-making (Agrimson & Taft, 2009; Ambushe et al., 2023). Beginning with few numbers of articles in the early years, the trend has steadily increased to over eight articles per year, reflecting the ongoing expansion and refinement of nursing knowledge (Figure 4).

Evidence stated that nursing concepts have been continuously evolving, with an increasing emphasis on various facets of patient care, healthcare systems, and nursing practice (Meleis, 2018). The growing volume of publications highlights the development of these concepts and emphasizes the importance of sustained scholarly focus on nursing (Arshabayeva et al., 2024). This supports an evolutionary perspective on concept development, encompassing three distinct dimensions: significance, application, and practical use (Connor et al., 2023). The categorization into four primary themes—psychological response, healthcare system improvement, behavior, and patient-focused concepts—provides a comprehensive framework for understanding how nursing research is addressing diverse aspects of patient care. The findings offer nursing researchers to highlight the concept to describe the phenomenon (Connor et al., 2023). Having these various concepts can help nurses better understand phenomena in the clinical field. Additionally, nursing researchers can use these concepts to explore specific cases more deeply. For example, if researchers aim to focus on the outcomes of psychological responses, concepts like relocation stress (Son et al., 2008), post-traumatic stress (Nayback, 2009), spiritual crisis (Agrimson & Taft, 2009), or dilemmas (Chiaranai, 2011). Similarly, research focused on patient behavior could benefit from the concept of "help-seeking behavior," which can help researchers understand the underlying issues patients face and identify areas that require further exploration (Brown et al., 2023).



**Figure 4.** Student nurses' library (Courtesy of The Miss Margaret Robins Archives of Women's College Hospital, Photograph collection, L-00717. Photograph by Canada Pictures Limited).

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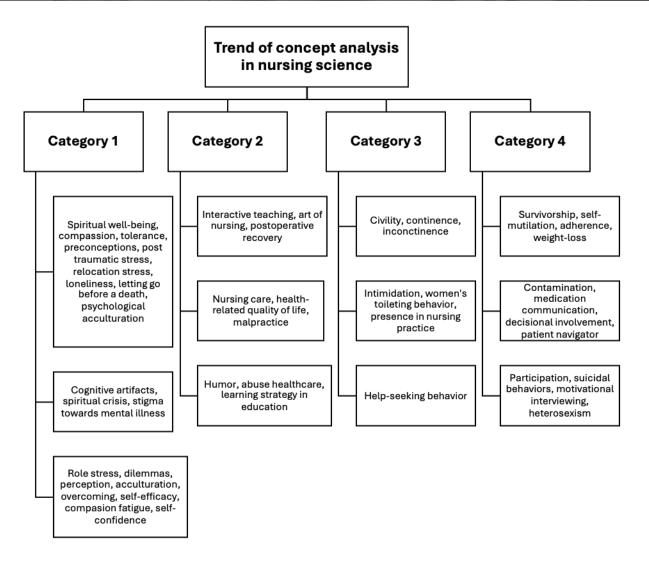


Figure 3. The trend of concept analysis in nursing.

This understanding can inform the development of targeted intervention programs. The same approach applies to other categories, such as category of patient-focused concept (Edgman-Levitan & Schoenbaum, 2021) and healthcare system improvement (Eljiz et al., 2023). A deeper understanding of these concepts can provide valuable insights into addressing and overcoming various challenges in both patient care and healthcare delivery (Connor et al., 2023). Furthermore, the consistent categorization of key concepts emphasizes the need to innovate nursing care encompass emotional support, moral values, and active patient involvement. This trend aligns that mental, emotional, and spiritual well-being are increasingly recognized as vital aspects of overall health (López-Tarrida et al., 2024). The systematic categorization and analysis of these 54 nursing concepts highlights the dynamic, interdisciplinary nature of nursing science. The ongoing development of concepts related to psychological health, healthcare systems, behavior, and patientcentered care underscores the importance for nurses to adapt and broaden their roles in addressing the basic human needs of patients (Pölzler, 2021). As research in these areas continues to evolve, it is essential for nursing practice to integrate these findings into daily clinical practice. These results align closely with the broader trend of advancing nursing knowledge to improve patient outcomes and optimize healthcare systems (Connor et al., 2023). Identifying and analyzing these trends can better tailor interventions to meet current challenges and address gaps in care delivery. For example, integrating psychological support help mitigate the emotional burden of chronic illness, enhance coping mechanisms, and foster resilience (Lohrasbi et al., 2023). In addition to psychological care, promoting collaboration among healthcare

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providers, patients, and family members is crucial for achieving shared health goals (Anderson et al., 2021). Collaborative models of care improve trust among stakeholders are actively involved in the care process. Leveraging multidisciplinary teamwork can address a wide array of patient needs and responsibility (Lammila-Escalera et al., 2022). These approaches contribute to better patient outcomes and improve effectiveness of healthcare delivery. The continued development of nursing knowledge through concept analysis offers immense potential for transforming patient care. Exploring and refining key nursing concepts can uncover innovative strategies to address challenges and advance the healthcare systems worldwide. Additionally, this study can foster innovation in nursing practice by encouraging the exploration of new and emerging concepts that may not yet be fully integrated into the nursing lexicon. It is hoped that the findings from this literature review can serve as a catalyst for further research and prompting nurses to investigate how these concepts can be adapted or expanded to meet the needs of diverse patient populations. These concepts are critical for advancing evidence-based nursing practice, illuminating trends and methodologies of the existing body of knowledge. Moreover, the importance of a literature review focusing on concept analysis cannot be overstated. Such reviews contribute to the standardization and operationalization of nursing concepts across education, research, and clinical applications. The limitations to deeply understand the trend of latest decades.

#### Conclusion

The trend of concept analysis in nursing, categorized into four key themes—psychological response, healthcare system improvement, behavior, and patient-focused concepts—provides valuable insights into the evolving priorities within the nursing discipline over the past five years. These themes reflect the increasing recognition of nursing as a holistic and dynamic profession influencing patient care. The emphasis on psychological response highlights the importance of understanding how patients cope with illness, pain, and stress. Similarly, the focus on healthcare system improvement underscores the need for more efficient and effective structures that enhance outcomes and nursing practice. Behavioral themes draw attention to patterns of patient behavior, health promotion, and adherence to treatment plans. Patient-focused concepts prioritize individualized care that aligns with the unique needs, preferences, and cultural backgrounds of each individual. Future studies should focus on refining and expanding concept-based nursing research to explore particular cases and contexts in greater depth. In addition, the study could prioritize assessing and designing caring interventions that address the psychological and emotional needs.

#### Author declaration

The author contributed to every phase of the review development, encompassing conceptualization, study design, data collection, analysis, interpretation of results, and the drafting along with refinement of the manuscript.

#### **Al statements**

The author did not use the generative-text AI tools during the whole writing of this article.

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#### Availability of data and materials

All data are available from the author.

#### **Competing interests**

The author declares no competing interest.

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#### Authors' perspective

#### **Innovation points**

- This study highlights the evolving trends in nursing science by examining how concept analysis has been applied over time.
- The publication employs the Walker and Avant concept analysis approach demonstrated the use in refining and clarifying nursing concepts.
- The study offers valuable recommendations for future nursing research, particularly in advancing the understanding and application of key nursing concepts.

#### Potential areas of interest

- What are the key trends and themes identified in the application of Walker and Avant's concept analysis approach in nursing science over the years?
- How does the use of Walker and Avant's method contribute to the development of nursing theories and evidence-based practices?
- What are the implications of the findings from this literature review for future nursing research and the advancement of nursing knowledge?

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