

# Reflection and Reflective Practice in Nursing: An Integrative Review and Conceptual Synthesis

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**Purpose:** This integrative review aimed to clarify the conceptual differences between reflection and reflective practice through an integrative review of relevant concept analysis studies. **Methods:** A comprehensive literature search was conducted across international and Korean databases between February 11 and March 23, 2025, with no restrictions on publication year. Search terms included “nurse,” “reflection,” “reflective practice,” and “concept analysis.” Only concept analysis studies of reflection or reflective practice in nursing were included. Out of 1,167 retrieved articles, nine were included in the review. **Results:** Reflective was primarily characterized as an internal cognitive and metacognitive processes aimed at gaining insight and support learning. In contrast, reflective practice emphasized the application of reflection to professional action, focusing on behavioral adjustment and practice improvement in clinical context. Approaches such as reflective thinking aligned with reflection, whereas reflection-in-action aligned more closely with reflective practice. **Conclusion:** Findings of this integrative review suggest that reflection can be more relevant in educational settings to foster critical thinking. On the other hand, reflective practice can better support clinical performance through action-based strategies. Promoting effective use of both concepts may involve developing complementary educational strategies tailored to their distinct features, along with institutional efforts to clarify their appropriate application.

**Key Words:** Concept Analysis; Integrative review; Nursing; Reflection; Reflective practice

## INTRODUCTION

Reflection and reflective practice are key concepts for professional development, improvement of nursing practice, and enhancement of patient care competence in the field of nursing. Reflection involves self-inquiry, wherein nurses critically analyze their own experiences to derive new insights that lead to a refined perspective on future practice improvement [1], and it has been reported to enhance nurses' self-efficacy and job engagement [2]. Reflective practice, by contrast, is a more action-oriented approach that involves not only internal inquiry, but also explicitly integrates the implementation of concrete practical changes and observable behavioral transformation in professional conduct and care delivery. Schon [3,4] distin-

guished reflective practice as “reflection-in-action” and “reflection-on-action,” suggesting that nurses acquire new knowledge by reflecting on problems encountered during or after practice. This approach facilitates the development of nursing knowledge through critical thinking and continuous learning [5] and enhances safe and effective care in clinical settings [6].

Reflection is not merely a theoretical concept but has been institutionalized as a core competency for nurses globally. The Canadian Nurses Association (CNA) [7] emphasizes reflection as an essential competency for ethical nursing practice and proposes a reflective process based on the model of Oberle and Raffin Bouchal [8], which helps nurses make thoughtful decisions in ethical dilemmas. In a literature review on the application of reflection

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as an educational strategy for development of nursing professionals, Miraglia and Asselin [9] reported that strategies such as reflective journaling, case analysis, and reflective dialogue with peers help nurses structure and reflect on their clinical experiences, resulting in positive learning outcomes such as enhanced critical thinking, deeper insight into clinical practice, and greater awareness of professional identity. In a simulation-based training program for nursing students, Chang et al. [10] found that post-simulation reflective journaling and debriefing sessions were effective in enhancing students' confidence in their communication and clinical understanding.

Reflective practice is considered to be a concrete strategy for practice change and quality improvement. The Nursing and Midwifery Council (NMC) [11] emphasizes reflective practice as a key strategy for improving health-care quality and supporting practitioner learning and requires, as part of the revalidation process, five written reflective accounts and a reflective discussion based on clinical experiences, feedback, or educational activities from the past three years. A review on the application of reflective practice in nursing education found that strategies such as reflective journaling, debriefing, and discussion-based feedback sessions effectively encouraged students to analyze clinical experiences and improve their practice behaviors, resulting in positive outcomes such as enhanced clinical judgment, confidence, critical thinking, emotion regulation, and self-awareness [12]. Beam et al. [13] implemented a self-assessment strategy using self-recorded performance videos following an N95 mask donning and doffing simulation during infection control training for nursing students which enhanced students' safety behaviors, contributed to critical thinking development, and promoted sustained improvement in clinical practice. The researchers identified this process as a reflective practice strategy, framing it as a practice-oriented approach that promotes behavioral change grounded in reflective thinking.

Although reflection and reflective practice have distinct conceptual definitions, they are applied through similar strategies in educational and clinical settings, including reflective journaling, debriefing, self-assessment, and peer discussion [9,12,13], which promote critical thinking, enhance practical judgment, and facilitate behavioral change [9,10,12,13]. While the use of similar strategies has contributed to the interchangeable application of reflection and reflective practice in educational and clinical contexts, this overlap raises questions regarding whether the two concepts serve distinct functions in nursing practice. In the absence of clear conceptual differentiation, it remains unclear whether interventions described using these terms

are primarily intended to support internal cognitive understanding or to facilitate observable changes in professional practice. This lack of clarity suggests potential challenges in aligning intervention purposes with appropriate outcome indicators and highlights the need for closer conceptual examination.

Reflection is typically defined as an internal cognitive process [1], yet in practice, it is widely used as an educational strategy to induce behavioral change [9,10]. Reflective practice, though conceptually behavior-oriented, often shares introspective strategies like journaling [12,13]. These similarities suggest that although the concepts are theoretically distinct, they are often used interchangeably.

In Korean nursing literature, activities aimed at improving clinical practice through reflection were commonly described as "reflection," without a conceptual distinction from reflective practice [14]. In a study reporting that students engaged in reflective journaling based on clinical practice and implemented behavioral changes in their future practice, which represented the core attributes of reflective practice, the term "reflection" was nonetheless consistently used throughout the paper without a clear conceptual distinction from reflective practice [15]. Similarly, Jo and Jun [16] analyzed reflective journals written by nursing students after simulation-based classes and confirmed that behavioral improvements followed simulation-based reflection. Yet these activities were uniformly referred to as "reflection" without a clear conceptual distinction. International literature reviews on the use of reflection as a learning strategy also discussed outcomes such as enhanced professionalism and clinical practice competence in nursing students within the conceptual boundaries of "reflection" [17]. Asselin and Fain [18] described Critical Reflective Inquiry (CRI) models in which nurses described clinical experiences and engaged in critical thinking through journaling, referring to these as reflective practice strategies, although they did not clearly distinguish between the two concepts. These findings underscore the importance of distinguishing between reflection as an internal cognitive process and reflective practice as behaviorally transformative process in clinical settings. This conceptual ambiguity is not merely semantic but has important implications for nursing research and practice. Without a clear distinction between reflection and reflective practice, interventions grounded in different conceptual assumptions may be evaluated using inappropriate outcome indicators, and educational strategies intended to promote behavioral change may be misinterpreted as cognitive development alone.

Previous studies have explored the conceptual analysis

of reflection [A9] and reflective practice [A7], the application of reflection in mental health education [19], the use of reflection as an educational strategy for developing nursing professionalism [9], and the impact of reflective practice on stress, anxiety, and competence among nursing students [20]. However, existing studies have generally focused on either reflection or reflective practice, showing a limited approach to comparatively analyzing the similarities and differences between the two concepts of an integrated perspective. However, few studies have directly compared and examined the similarities and differences between the two concepts.

Concept analysis is an academic method used in nursing research and theory development that clarifies specific concepts by identifying their overall structure and meaning, ultimately contributing to the development and definition of conceptual understanding. It plays a crucial role in ensuring conceptual clarity for researchers and in establishing a foundation for theoretical discussions [21]. Reflection and reflective practice are not solely academic concepts, but are also essential in clinical practice, necessitating a clear understanding and distinction between the two. Given the complex and multifaceted nature of these concepts, it is essential to strengthen their theoretical foundations and clearly identify their core characteristics through existing concept analysis studies. An integrative literature review provides a comprehensive approach to analyzing these concepts from multiple perspectives [22].

Accordingly, this study aimed to conduct an integrative review of concept analysis papers on reflection and reflective practice in nursing to clarify the conceptual similarities and differences between the two. Unlike previous studies that have examined these concepts independently, this review compared and synthesized existing concept analysis research to identify shared and distinct definitions and characteristics of reflection and reflective practice. Through this, we seek to enhance conceptual clarity and provide specific guidance for the appropriate application of these concepts across various contextual settings, thereby offering foundational data for future applications in nursing research, education, and practice.

## METHODS

This review followed the five-stage process proposed by Whittemore and Knafl [22]: (1) problem identification, (2) literature search, (3) data evaluation, (4) data analysis, and (5) presentation. An integrative review was selected as it enables the synthesis of concept analysis studies grounded in various theoretical frameworks, providing a

comprehensive understanding of the conceptual boundaries and practical implications of reflection and reflective practice in nursing. To ensure transparency in the review process and results, the study was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [23].

### 1. Problem Identification

The research question was 'How are reflection and reflective practice conceptualized and understood in nursing?' This study examined concept analysis papers that defined and discussed the use of reflection and reflective practice in the field of nursing.

### 2. Literature Search

Two researchers independently conducted the literature search from February 11 to March 23, 2025. The databases searched included Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Central Register of Controlled Trials (CENTRAL), Excerpta Medica Database (EMBASE), PubMed, APA PsycINFO, Research Information Sharing Service (RISS), DBpia, Korean Medical Database (KMBASE), Korean Studies Information Service System (KISS), and ScienceON.

Keywords with Boolean operators (AND, OR) were used to search each database using the terms 'Nurse', 'Reflection', 'Reflective Thinking', 'Reflective Practice', 'Cognitive Reflection', 'Concept', and 'Concept Analysis' (Appendix 1). For the Korean databases, equivalent Korean terms were used in conjunction with Boolean operators. To comprehensively explore conceptual evolution, no date restrictions were applied; all studies published before March 23, 2025, were eligible.

All retrieved articles were screened according to predefined inclusion and exclusion criteria to determine their eligibility for inclusion in this integrative review. Inclusion criteria were: (1) studies that analyzed the concept of reflection or reflective practice, and (2) studies written in either Korean or English. (3) if both a thesis and journal article existed for the same study, peer-reviewed journal articles were selected. Exclusion criteria were: (1) studies presented only as abstracts, case reports, posters, or letters were excluded.

### 3. Data Evaluation

In this study, concept analysis papers were treated as theoretical literature, and their quality was assessed based

on adherence to the methodological procedures of the selected concept analysis framework, following the guidelines of Whittemore and Knafl [22]. According to these guidelines, the quality of quantitative and qualitative studies should be appraised using design-appropriate tools, such as Consolidated Standards of Reporting Trials (CONSORT) [24] and Revised Cochrane Risk of Bias Tool 2.0 (RoB 2.0) [25] for quantitative research, and Critical Appraisal Skills Programme (CASP) [26] and Joanna Briggs Institute Qualitative Assessment and Review Instrument (JBI-QARI) [27] for qualitative research. For mixed-method studies, tools such as the Mixed Methods Appraisal Tool (MMAT) [28] can be used. However, for theoretical literature without empirical data, such as theory development or concept analysis, scholars recommend evaluating theoretical structure and logical consistency based on the frameworks proposed by Walker and Avant [29], Chinn and Kramer [30], and others.

In absence of formal appraisal tools for concept analysis studies, each study was assessed based on its adherence to the methodological procedures of the selected concept analysis approach. Two independent reviewers evaluated each study using the following criteria: (1) clarity of the research aim and purpose; (2) thoroughness of the literature review and data sources; (3) clarity of concept structure and attributes; (4) logical consistency in defining the concept; and (5) practical applicability. The appraisal criteria were selected to reflect both the methodological requirements of literature-based reviews and concept analysis studies. Clarity of the research aim and purpose and thoroughness of the literature review were included as fundamental criteria commonly expected in literature-based research, as reflected in widely used appraisal frameworks for quantitative and qualitative studies [25-28], as these elements are essential for ensuring analytic focus and the adequacy of data sources in concept analysis studies. The remaining criteria were derived from methodological expectations repeatedly emphasized across diverse concept analysis approaches [29-34]. These approaches consistently highlight the importance of coherent conceptual organization, internal theoretical consistency, and relevance to nursing practice as key outcomes of rigorous concept analysis, thereby informing the selection of criteria related to concept structure, logical consistency, and practical applicability.

Two reviewers independently assessed all included studies. One reviewer had prior experience conducting concept analysis research, and the other was a doctoral-level nursing student who had completed formal coursework in nursing theory and concept analysis. Each crite-

ron was rated as "fully met," "partially met," or "not met," with final decisions made through reviewer consensus. No third reviewer was required.

#### 4. Data Analysis

Extracted data were organized into a structured table with three categories: study characteristics (author, publication year, selected concept, aim, framework, population, and context of use), conceptual findings (antecedents, attributes, outcomes, and applications), and definitions. Each included concept analysis study was independently and repeatedly reviewed by two reviewers, and the conceptual findings and definitions presented in each study were inductively examined.

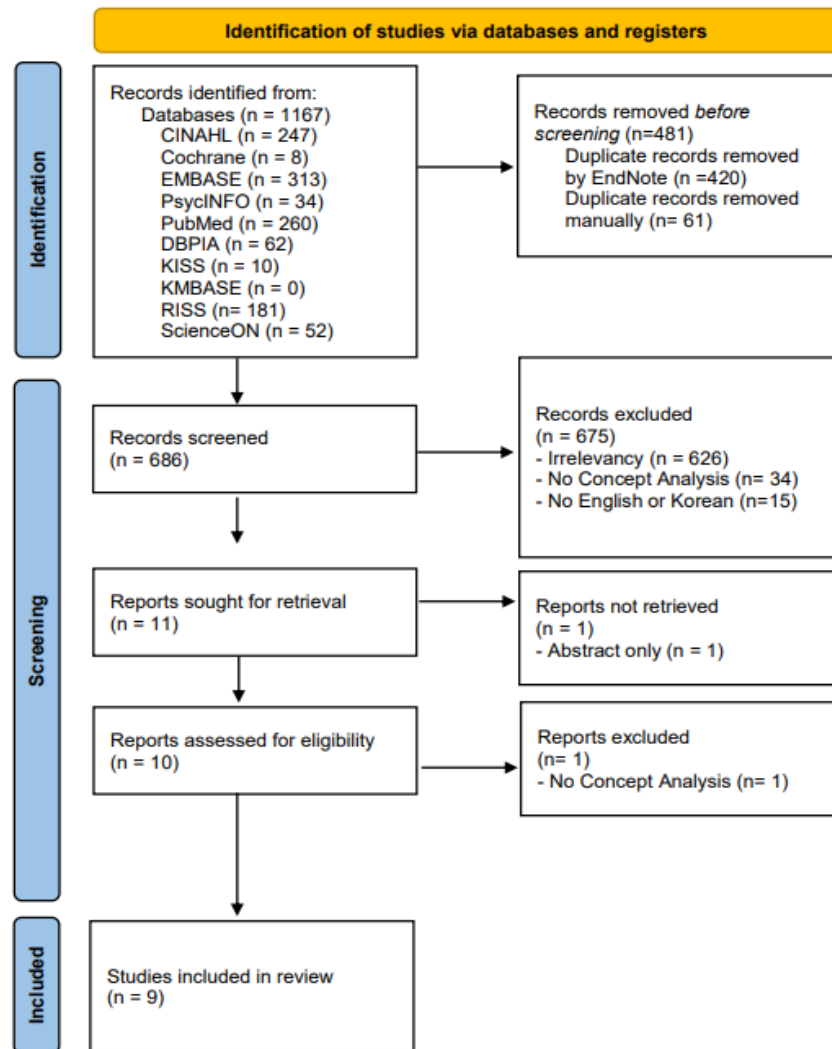
Key conceptual components identified in each study were compared across studies to examine similarities and differences in how the concepts were conceptualized. Based on this comparative synthesis, the reviewers distinguished between reflection and reflective practice and grouped the studies accordingly. The conceptual findings and definitions of each concept were then synthesized into narrative summaries and comparative table.

## RESULTS

The literature search and selection process followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines [23]. A total of 1,167 records were retrieved: CINAHL (n=247), Cochrane Central Register of Controlled Trials (CENTRAL) (n=8), EMBASE (n=313), PsycINFO (n=34), PubMed (n=260), DBpia (n=62), KISS (n=10), KMBase (n=0), RISS (n=181), and ScienceON (n=52). 481 studies were removed due to duplicates, the titles and abstracts of the remaining 686 studies were screened. Of these, 675 studies were excluded because studies were irrelevant to the research topic (n=626), not concept analyses (n=34), and were published in languages other than English or Korean (n=15). Following full-text screening, two additional studies were excluded due to unavailable full text (n=1) and incorrect methodology (n=1). As a result, nine studies were included in the final review (Figure 1).

#### 1. Quality Appraisal Result

A quality assessment was conducted based on the methodological framework used in the nine concept analysis studies (Appendix 2, 3). The appropriateness of concept selection and the clarity of the analysis objectives were



**Figure 1.** Flow chart of study selection.

explicitly presented in all studies. In most studies, the literature search and analysis were conducted appropriately in accordance with the applied methodology. However, the study using Penrod and Hupcey's [31] methodology included literature from various academic disciplines but lacked an explanation of how each discipline theoretically contributed to the concept of reflection [A8]. In contrast, the study using Bowers and Schatzman's [32] method clearly distinguished between nursing and education, explicitly presenting how reflective practice was defined within each disciplinary context [A4]. In a study that adopted Wilson's method as revised by Gift [33], a case study was used to illustrate the core attributes of the concept. However, the case did not fully incorporate the defining attributes and its empirical relevance was limited because it relied solely on literature-based examples rather than real-world experiences [A1]. In terms of concept

definition and logical consistency, none of the three studies employing Rodgers' [34] methodology demonstrated whether the analysis was conducted in a flexible, iterative, and nonlinear manner, as suggested by the methodological framework. While the study using dimensional analysis [32] clearly organized the conceptual components, interpretive explanations regarding the relationships and connections among the components were not clearly presented. In the final selection, all nine studies were included based on author consensus.

## 2. Study Characteristics

This review included nine concept analysis studies in the field of nursing that addressed the concepts of reflection and reflective practice in various contexts. Key themes included reflective thinking in clinical nursing ed-

education [A1], reflection for professional development [A9], reflective processes [A8], student-centered debriefing-based reflection [A6], critical reflection to facilitate palliative care in neonatal intensive care unit (NICU) [A4], reflective practice [A2,A3,A7], and reflection-in-action in high-fidelity simulations [A5].

The studies were published between 2004 and 2022 and originated in the United States (n=3), Canada (n=2), South Africa (n=2), Ireland (n=1), and Japan (n=1). The most used conceptual frameworks were Rodgers' evolutionary method (n=3) and Walker and Avant's method (n=2). Other studies employed the concept analysis methods of Wilson (revised by Gift) [33]; Norris [35], Bowers and Schatzman [32]; and Penrod and Hupcey [31], each used in one study. Seven of the included studies identified nurses as the population of interest [A1-A4,A7-A9]. Of these, one focused exclusively on NICU nurses [A4], while the other included both newly graduated nurses and nursing leaders [A7]. Six studies included students [A3,A5-A9], two of which also involved nurse educators [A8,A9]. All nine studies indicated that reflection and reflective practice were applied in both clinical and educational nursing contexts. Specifically, two studies focused on clinical nursing education settings [A1,A2], one addressed NICU and pediatric palliative care [A4], and two examined simulation-based education [A5,A6] (Table 1).

### 1) Comparison of Antecedents, Attributes, Consequences, and Applications

The antecedents, attributes, outcomes, and applications of reflection and reflective practice identified in the selected studies are summarized in Table 2, and their similarities and differences are summarized in Table 3.

### 3. Antecedents

Both reflection and reflective practice shared common antecedents included personal motivation for learning and psychological readiness [A2,A3,A8,A9], as well as prior knowledge, knowledge acquisition, and experiential background [A5,A6,A9], all of which were crucial for engaging in reflective processes. However, reflection was primarily associated with internal factors such as self-awareness, emotional sensitivity [A1] and recognition of ethical or theory-practice tensions [A9], whereas reflective practice was more strongly linked to environmental and interpersonal conditions, including psychological safety [A3,A5,A6] and the presence of skilled facilitators [A6].

### 4. Attributes

Key attributes of reflection included its use as a learning strategy applicable across diverse educational settings and its function as a pedagogical tool and method for facilitating learning [A4,A9]. Conversely, reflective practice emphasized interaction with others and reflection occurring in relation to action, highlighting its situated and practice-oriented nature [A5,A6,A9].

### 5. Consequences

Reflection primarily led to improved communication and interpersonal interactions [A9], whereas reflective practice was associated with enhanced decision-making in clinical situations [A3,A6], improved patient care [A1,A9], and increased empathy and compassion [A3]. Both reflection and reflective practice were found to support professional development by enabling learners to integrate new knowledge through experience, apply it in practice, and develop problem-solving skills. Both concepts highlighted the potential for practice improvement, which was demonstrated through the process by which individuals critically examine their experiences, generate new insights, and translate them into practice [A1,A3,A5-A7,A9].

### 6. Application

Application guidelines for reflection emphasized cognitive awareness, encouraging individuals to recognize their thoughts, emotions, and cognitive dissonance, analyze experiences from multiple perspectives, and explore assumptions and beliefs to derive insight [A1,A4,A8]. These guidelines aimed to facilitate learners' ability to reconstruct new meanings or perspectives through reflective exploration. In contrast, the included concept analysis studies did not report explicit application guidelines for reflective practice.

### 7. Definitions of Reflection and Reflective Practice

Table 4 presents the definitions of reflection and reflective practice identified in the selected studies. Of the nine concept analyses, seven provided explicit definitions. A synthesis of these definitions indicates that reflection is primarily described as a process through which individuals critically examine their thoughts, emotions, and experiences to derive new insights and formulate action plans. Reflection facilitates internal exploration through cognitive and emotional awareness [A1,A9] and critical

**Table 1.** Characteristics of the Reviewed Studies

(N=9)

No.	Author (year)/ Country	Topic	Purpose	Framework	Population	Context of use
A1	Chabeli & Muller (2004)/ South Africa	Reflective Thinking in clinical nursing education	To explore and define the concept of reflective thinking in clinical nursing education	Wilson's Method (as revised by Gift)	Clinical nursing education learners	· Clinical nursing education settings
A2	Duffy (2007)/ Ireland	Reflective Practice	To clarify the concept of reflective practice and determine its value to nurses through a concept analysis.	Rodgers' Evolutionary Method	Nurses and health professionals	· Nursing education · Nursing practice · Allied professions · Clinical supervision and preceptorship
A3	Goulet et al. (2016)/ Canada	Reflective Practice in nursing and education	To explore whether reflective practice, borrowed from education, has a definition specific to nursing.	Bowers and Schatzman's Dimensional Analysis	Nurses and Nursing students	· Clinical practice, training, research
A4	Lewis (2012)/ USA	Critical Reflection as a Facilitator of Palliative Care in the NICU	To clarify the concept of critical reflection as a facilitator of palliative care in NICU	Norris's Method of Concept Clarification	NICU nurses and healthcare professionals	· Neonatal Intensive Care Unit (NICU) · Pediatric Palliative Care Settings · Generalized to other environments
A5	Mulli et al. (2021)/ Canada	Reflective in Action during high-fidelity simulation	To complete an in-depth analysis of the concept of 'reflection-in-action' during high-fidelity simulation.	Walker & Avant's Concept Analysis	Nursing educators and students (particularly those in high-fidelity simulation)	· Nursing simulation education · Real-time clinical reasoning
A6	Nagle & Foli (2020)/ USA	Student-Centered Reflection in Debriefing	To define student-centered reflection and provide strategies for educators	Walker & Avant's Concept Analysis	Students participating in simulation-based learning	· Nursing education · Simulation-based learning · Debriefing (after simulation learning activities)
A7	Patel & Metersky (2022)/ Canada	Reflective Practice/ Rodgers' Evolutionary Method	To clarify reflective practice in nursing	Rodgers' Evolutionary Method	Nursing students, novice nurses, experienced nurses, general nurses, nurse leaders.	· Across education and practice · Complex and unpredictable settings · Across professions
A8	Sadlon (2018)/ USA	Process of Reflection/ Penrod and Hupsey's principle-based concept analysis method	To conceptualize reflection as a process based on Bernard Lonergan's cognitive operations (experiencing, understanding, judging, and deciding) and to clarify its components through a principle-based concept analysis	Penrod and Hupsey's principle-based concept analysis method	Nurses, Nursing students, educators	· Professional practice · Educational context
A9	Tashiro et al. (2013)/ Japan	Reflection in nursing professional development/ Rodgers' Evolutionary Method	To describe attributes, antecedents, and consequences of reflection in nursing professional development, as well as surrogate terms and a model case to inform nursing educators, students, and nurses about developing reflective skills.	Rodgers' Evolutionary Method	Nursing educators, students, and nurses.	· Nursing education · Clinical practicum

**Table 2.** Antecedents, Attributes and Outcome of Reviewed Studies

(N=9)

No.	Author (year)/ Country	Antecedents	Attributes	Outcome	Application Guidelines
A1	Chabeli & Muller (2004)/ South Africa	A process beginning with cognitive and affective thinking skills	Not mentioned	New insight and changed perspective for improving practice	A three-phase process of awareness and disequilibrium, interactive constructing, and consolidation for decision making and problem solving
A2	Duffy (2007)/ Ireland	Requires willingness to learn, openness to share, awareness of conditions, and courage to act on reflection.	Include examination of practice, reflexivity, active and deliberate constructive process, and process of personal transformation.	Enhances critical thinking, improves patient care, empowers practitioners, and promotes personal transformation.	Not mentioned
A3	Goulet et al. (2016)/ Canada	Personal qualities (e.g., desire to learn, honesty) and organizational/ contextual factors (e.g., time allotted, workplace culture)	Not mentioned	Improving the quality of practice, integrating knowledge, enhancing self-awareness, professional development, better clinical reasoning, and improved problem-solving and decision-making abilities and empathy, compassion, and caring	Not mentioned
A4	Lewis (2012)/ USA	A new experience, an unstructured idea without an obvious solution, a desire to improve practice, and notably, a lack of palliative care education and moral distress in NICU nurses	A catalyst for practice change and professional growth, being a method of learning and a complex mental process, requiring the examination of experiences from different angles, and fundamentally involving the making of new meaning	Entering a potentially unsettling cognitive process, potentially leading to a more streamlined approach to problem-solving in a team setting, and most significantly, the creation of new meaning which provides a foundation for improved practice	4-phase model adapted from McNeilly et al., including deconstruction, analysis, communication and collaboration, and reconstruction with new meaning <sup>3...</sup> , or as structured group sessions involving sharing experiences and case studies, analysis, discussion, and collaborative problem-solving
A5	Mulli et al. (2021)/ Canada	Presence of prior knowledge or experience, the occurrence of a surprise event that challenges automated processes, and the assurance of a psychologically safe environment	Must occur during the simulation, learners must identify a critical learning juncture <sup>4</sup> , there must be a pause in student action <sup>4</sup> , and there must be student-driven out-loud discussion for knowledge sharing	Performing new actions, improved ability to adapt to change or improvise, gaining skills, understanding, or new knowledge, and increasing self-confidence	Not mentioned
A6	Nagle & Foli (2020)/ USA	An experienced facilitator, peers, learning objectives, time, previous knowledge and beliefs, self-awareness, and a supportive, safe environment	Intentional, cyclic, metacognitive examination; dialogue and feedback with facilitators and peers; an introspective, sense-making process; and cognitive adjustment after the simulation	Short-term outcomes like resolving knowledge gaps and developing critical thinking, and long-term outcomes such as enhanced clinical judgment, practice change, and resilience	Not mentioned

**Table 2.** Antecedents, Attributes and Outcome of Reviewed Studies (Continued)

(N=9)

No.	Author (year)/ Country	Antecedents	Attributes	Outcome	Application Guidelines
A7	Patel & Metersky (2022)/ Canada	Complex or unique clinical experiences, emotional connections to situations, the desire for practice improvement, and recognizing knowledge gaps or experiencing doubt	Mindfulness, self-awareness, active engagement, connecting meanings, pattern recognition, awareness of personal values/beliefs/emotions, reflective dialogue, and experimenting in practice, requiring deliberate and critical thinking	Cyclical process leading to deeper insight into experiences, identification of knowledge gaps, enhanced critical thinking and self-directed learning, changes in practice, personal and professional growth, and ultimately, improved patient care outcomes	Not mentioned
A8	Sadlon (2018)/ USA	Readiness, openness, willingness, conscious intentionality, and personal commitment	Not mentioned	Transformation of beliefs and assumptions and the generation of new insights and perspectives1.... This can lead to making correct judgments, developing higher-order thinking, and achieving improved practice and intellectual growth	Conscious enactment of exploring one's thoughts and experiences. It involves intentionally engaging with cognitive operations and one's inner self to understand and transform assumptions through conscious deliberation and questioning
A9	Tashiro et al. (2013)/ Japan	Theory and practice gap (considered the core antecedent), expansion of the nursing role and competency, educational and learning needs, and educational responsibility	Process of learning from experience and a method or tool within various educational approaches to promote students' reflective learning	Transforming new perspectives, enhanced communication, professional development, and ultimately improved quality of care	Not mentioned

thinking [A1,A4], thereby contributing to learners' abilities to generate new knowledge or enhance its application in practice through a reflective analysis of experience.

By contrast, reflective practice is defined as a process that goes beyond the exploration of experience and emphasizes the application of insights in practice to enhance learning and drive concrete behavioral change. Duffy [A2] described reflective practice as a means of strengthening practical competence through reflective inquiry, ultimately leading to changes in clinical practice. Patel and Metersky [A7] defined it as a cognitive skill that involves applying insights gained from experience to improve patient care outcomes and advance knowledge. Similarly, Nagle and Foli [A6] characterized reflective practice as a metacognitive process that facilitates cognitive adjustment and perspective transformation through interactions with peers and facilitators.

Comparison of the definitions reported in the included studies revealed two related but distinct conceptual ori-

entations. Reflection was consistently conceptualized as an internal cognitive process aimed at understanding experience, whereas reflective practice emphasized the application of reflection to professional action and practice improvement. This distinction in definitional emphasis served the basis for differentiating the included studies according to their dominant conceptual focus. Accordingly, four studies were classified as addressing reflection [A1, A4,A8,A9], and five as addressing reflective practice [A2, A3,A5,A7].

## DISCUSSION

This study aimed to clarify and compare the concepts of reflection and reflective practice in nursing by reviewing and synthesizing concept analysis studies to provide practical guidance for their application in different contexts. Nine studies were selected through a structured review process, and their definitions, antecedents, attributes, con-

**Table 3.** Similarities and Difference in Reflection and Reflective Practice

Items	Reflection	Similarities	Reflective practice
Antecedents	<ul style="list-style-type: none"> <li>· Self-Awareness and Emotional Sensitivity [A1]</li> <li>· Conscious Intentionality [A8]</li> <li>· Moral Distress [A4]</li> <li>· Role Expansion and Competency Enhancement [A9]</li> <li>· Recognition of the Theory-Practice Gap [A9]</li> <li>· Learning Opportunities [A9]</li> </ul>	<ul style="list-style-type: none"> <li>· Psychological Readiness and Openness [A2,A3,A8]</li> <li>· Personal Motivation and Willingness to Learn [A2,A3,A8,A9]</li> <li>· New Experiences and Problem Situations [A4,A5,A7]</li> <li>· Desire to Improve Practice [A4,A7]</li> <li>· Recognizing Knowledge Gaps [A4,A7,A9]</li> <li>· Prior Knowledge, Knowledge Acquisition and Experience [A5,A6,A9]</li> </ul>	<ul style="list-style-type: none"> <li>· Courage to Act on Reflection [A2,A3]</li> <li>· Emotional Connections to Situations [A7]</li> <li>· Supportive and Psychologically Safe Environment [A3,A5,A6]</li> <li>· Experienced Facilitator [A6]</li> <li>· Time and Learning Opportunities [A3,A6]</li> <li>· Peers and Learning Objectives [A6]</li> </ul>
Attributes	<ul style="list-style-type: none"> <li>· Process of Learning from Experience [A9]</li> <li>· Method or Tool within Various Educational Approaches [A4,A9]</li> <li>· Professional Growth [A4]</li> <li>· Promoting Reflectors' Reflective Learning [A9]</li> <li>· Making of New Meaning [A4]</li> <li>· Complex Mental Process [A4]</li> </ul>	<ul style="list-style-type: none"> <li>· Active Engagement and Deliberate Thinking [A2, A7,A8]</li> <li>· Experimenting in Practice [A4,A7]</li> <li>· Examination and Analysis of Experiences [A2,A4~A7]</li> </ul>	<ul style="list-style-type: none"> <li>· Cognitive Adjustment [A6]</li> <li>· Dialogue and Feedback with Facilitators and Peers [A5~A7]</li> <li>· Reflector-Driven Out-Loud Discussion [A5,A6]</li> <li>· Intentional and Cyclic Reflection [A6]</li> <li>· Process of Personal Transformation [A2]</li> <li>· Pause in Action [A5]</li> <li>· Critical Learning Juncture [A5]</li> <li>· Reflection in/on/for Action [A5,A7]</li> <li>· Self-Awareness and Emotional Awareness [A7]</li> </ul>
Outcome	<ul style="list-style-type: none"> <li>· Enhanced Communication and Interaction [A9]</li> </ul>	<ul style="list-style-type: none"> <li>· Deep Insight and Knowledge Integration [A1,A3~A9]</li> <li>· Changed Perspective and Cognitive Transformation [A1,A2,A4,A8]</li> <li>· Practice Improvement [A1,A3,A5~A7,A9]</li> <li>· Improved Problem-Solving [A3~A8]</li> <li>· Enhanced Critical Thinking and Clinical Reasoning [A2~A4,A6~A9]</li> <li>· Personal and Professional Growth [A2,A7~A9]</li> </ul>	<ul style="list-style-type: none"> <li>· Increasing Self-Confidence [A5]</li> <li>· Enhancing Self-Awareness [A3]</li> <li>· Improved Adaptability [A5]</li> <li>· Enhance in Decision-Making [A3,A6]</li> <li>· Improved Patient Care [A2,A7]</li> <li>· Enhanced Empathy, Compassion, and Caring [A3]</li> </ul>
Application guidelines	<ul style="list-style-type: none"> <li>· Emphasize cognitive awareness by encouraging individuals to recognize their thoughts, emotions, and cognitive dissonance. They focus on analyzing experiences from multiple perspectives, exploring beliefs and assumptions, and deriving insights. These guidelines ultimately aim to facilitate transformative understanding, allowing individuals to reconstruct new meanings or perspectives based on reflective insights [A1,A4,A5,A8]</li> </ul>	<ul style="list-style-type: none"> <li>· None</li> </ul>	<ul style="list-style-type: none"> <li>· Not mentioned</li> </ul>

sequences, and applications were comprehensively analyzed. Reflection was primarily characterized as an internal, cognitively oriented process focused on examining experiences to promote understanding, insight, and learning. In contrast, reflective practice was defined as an action-oriented and interactional process that emphasizes

the application of reflective insights to clinical practice through dialogue, feedback, and engagement with others. This distinction highlights that, although the two concepts share common reflective processes, they differ fundamentally in their primary orientation and function.

An examination of the selected studies revealed that

**Table 4.** Definition Defined by the Reviewed Studies

(N=9)

No.	Author (year)/ Country	Definition
A1	Chabeli & Muller (2004)/ South Africa	"Reflective thinking is a rational, progressive, cyclic, interactive mental process influenced by hierarchical cognitive and affective thinking skills. Triggered by uncertainty, leading to awareness and disequilibrium, followed by an interactive constructing process and knowledge consolidation, resulting in new insight and changed perspective for clinical decision making and problem solving." (p. 46)
A2	Duffy (2007)/Ireland	"Reflective practice is an active and deliberate process of critically examining practice where an individual is challenged and enabled to undertake the process of self-enquiry to empower the practitioner to realize desirable and effective practice within a reflexive spiral of personal transformation." (p. 1405)
A3	Goulet et al. (2016)/ Canada	Not mentioned
A4	Lewis (2012)/USA	"Critical reflection as a facilitator of palliative care delivery in the NICU is a structured, formal, and routine process that allows healthcare professionals the opportunity to critically examine their experiences in different contexts, discuss those experiences, relate those experiences to prior experiences, construct new meaning, and identify creative interventions to improve care delivery in the future." (p. 410)
A5	Mulli et al. (2021)/ Canada	"In this paper we define the concept of reflection-in-action during high-fidelity simulation as the moment within high-fidelity simulation in which students are challenged to demonstrate their knowledge and skills beyond mechanical action. It is the point at which students bridge didactic learning and clinical practice, gaining understanding, new skills, flexibility, speed, and self-confidence." (p. 6)
A6	Nagle & Foli (2020)/USA	"Student-centered reflection during debriefing is an intentional meta-cognitive examination of knowledge, skills, and attitudes in which students dialogue with peers and an experienced facilitator to make sense of the simulation experience resulting in cognitive adjustments and perspective reframing." (p. 39)
A7	Patel & Metersky (2022)/ Canada	"Reflective practice is a cognitive skill that demands conscious effort to look at a situation with an awareness of own beliefs, values, and practice enabling nurses to learn from experiences, incorporate that learning in improving patient care outcomes. It also leads to knowledge development in nursing." (p. 180)
A8	Sadlon (2018)/USA	Not mentioned
A9	Tashiro et al. (2013)/ Japan	"Reflection in nursing professional development is an active process triggered by the theory-practice gap, in which nursing students or nurses describe the situation, realize their emotional reaction, examine their thoughts and feelings internally, critically analyze their behavior and the situation, evaluate them, and thus plan a new action." (p. 176)

concept analyses of reflection began in 2004 [A1], with the most recent study published in 2018 [A9]. In contrast, studies on reflective practice began in 2007 [A2], with subsequent publications in 2016, 2021, and 2022 [A3,A5,A7]. These publication years demonstrate that concept analysis studies on reflective practice have been published more recently than those focusing on reflection. In 2019, nine UK healthcare professional regulatory bodies issued a joint statement highlighting the importance and benefits of reflective practice and recommending that healthcare professionals engage in honest and authentic reflective practice in clinical settings [36]. This emphasis reflects broader professional discussions regarding the need for practical competence that integrates cognitive reflection

with behavioral change and application in increasingly complex clinical environments. Such perspectives align with the argument of Nicol and Dosser [6], who emphasized that reflection should move beyond cognitive training exercises and function as a strategic approach to improving clinical practice.

A comprehensive review of concept analysis studies of reflection and reflective practice revealed similarities and differences in their antecedents. Both concepts share key antecedents, such as psychological readiness and openness [A2,A3,A8], as well as personal motivation and willingness to learn [A1,A3,A8,A9] (Table 3). These findings suggest that learners' open attitudes toward new experiences and their motivation to learn are essential not only

for promoting internal reflection, but also for facilitating reflective actions in practice. This interpretation aligns with the findings of Alsalamah et al. [37], who emphasized that reflection is driven by individual factors such as learning motivation, a sense of responsibility, and a desire for professional development, and that internal reflection can lead to reflective practice in clinical settings. In addition, encountering new experiences or challenging situations has been identified as another common antecedent of both reflection and reflective practice [A4,A5,A7] (Table 3). These findings are consistent with previous studies that reported that reflection is often triggered when individuals are faced with unexpected or significant situations [38], and that reflective thinking and action are promoted in complex or unforeseen circumstances, leading to problem-solving and professional insight [39].

In contrast, reflection tends to be facilitated primarily through internal exploration and self-understanding. Key antecedents include self-awareness and emotional sensitivity [A1], conscious intentionality [A8], moral distress [A4], role expansion and competency enhancement [A9], recognition of the theory-practice gap [A9], and learning opportunities [A9]. These factors suggest that learners are prompted to engage in reflection when they recognize inconsistencies between theory and practice or are required to assume new roles, leading them to reexamine their experiences. This observation is consistent with the findings of Alimohammadi et al. [40], who reported that reflective learning was enhanced in emergency department training through new role assignments and learning opportunities, and Matshaka [41], who found that nursing students developed deeper self-understanding and authenticity when facing moral conflicts.

Conversely, reflective practice extends beyond individual reflection and is supported by interpersonal interactions and environmental factors. Key antecedents include the courage to act on reflection [A2,A3], emotional connection to situations [A7], a supportive and psychologically safe environment [A3,A5,A6], guidance of experienced facilitators [A6], sufficient time and learning opportunities [A3,A6], and engagement with peers and shared learning objectives [A6]. These findings indicate that reflective practice is most effectively fostered within environments that encourage communication and collaboration rather than through internal cognitive processes alone. Notably, the presence of a safe and supportive setting and skilled facilitation plays a crucial role in enabling learners to articulate their reflective experiences and apply them in practice. This interpretation is consistent with previous research that highlights the importance of psycho-

logical safety and facilitator support in promoting reflective learning [12].

Both concepts share the core attribute of critically examining clinical and professional experiences. This process involves systematically reviewing past experiences, interpreting their meaning and impact, and using these insights to facilitate learning and growth. This shared attribute suggests that both concepts extend beyond surface-level knowledge acquisition and support a dynamic process of continuous learning and professional development grounded in experiential understanding. From this perspective, the critical examination of experience, which underpins both reflection and reflective practice, has been shown to provide cognitive and behavioral foundations that support professional growth, adaptability, and development among nurses [42].

In contrast, reflective practice emphasizes action-oriented changes and interpersonal interactions. In particular, “dialogue and feedback with facilitators and peers” highlight the social learning aspect of reflective practice, enabling individuals to consider diverse perspectives and seek actionable solutions through interpersonal communication. Moreover, “pausing in action” and “reflection on action” serve as key mechanisms that facilitate immediate reflection and behavioral adjustment within clinical settings. These characteristics align with previous findings that describe reflective practice as a learning strategy that promotes behavioral improvement through feedback and group discussions [42]. They are also consistent with studies that identify reflective practice as an effective educational approach that integrates knowledge and supports behavioral change through group learning, feedback, and mentoring [9].

The consequences of both reflection and reflective practice included deep insight and knowledge integration, changed perspectives and cognitive transformation, practice improvement, enhanced problem-solving abilities, strengthened critical thinking and clinical reasoning skills, and both personal and professional development (Table 3). These findings suggest that both concepts serve as core processes, through which nurses achieve deep learning and competency enhancement based on their experiences. This is consistent with previous studies indicating that reflection and reflective practice enable nurses to gain meaningful insights, integrate knowledge, improve clinical performance, and advance professional development through experiential learning [9].

Reflective practice, in particular, has been recognized for its potential to translate internal reflection to behavioral transformation and practical application in clinical

settings, enhancing nurses' adaptability, decision-making, and clinical competence in the face of the increasing complexity in healthcare environments. These findings align with previous studies showing that reflective practice enables nurses to critically analyze their experiences, respond effectively to change, and provide high-quality care under pressure [42]. Ultimately, reflective practice leads to measurable improvements in patient outcomes, underscoring its role not only as a theoretical construct but also as a catalyst for meaningful practice change.

The application of reflection emphasizes cognitive awareness, beginning by helping individuals recognize their thoughts, emotions, and cognitive dissonance [A1, A4, A8]. This process proceeds through analysis of experiences from multiple perspectives, exploration of personal beliefs and assumptions, and ultimately derivation of insights that foster transformative understanding. The goal is not merely to recall past experiences but also critically re-evaluate existing beliefs and reconstruct new perspectives through reflective thinking. Specific strategies to facilitate reflection include the use of reflective journals, guided reflective questions, and case-based reflection. Reflective journals allow learners to record their experiences, whereas reflective questions help them examine their thoughts and emotions in depth [A4, A9]. This aligns with the findings of Zhan et al. [43], who reported that master's-level nursing students enhanced both their professional and personal competencies by using reflective journaling to analyze clinical problems, explore emotional responses, and develop actionable plans for improvement. Such structured approaches to reflection suggest that reflective learning can foster the development of new insights and knowledge, ultimately contributing to personal growth and professional development.

However, no explicit guidelines for the application of reflective practice have been identified. This may be because reflective practice often occurs informally in clinical environments or is flexibly applied depending on situational needs. Instead of relying on fixed protocols, reflective practice emphasizes experiential learning and interactive processes in real-world settings. Nevertheless, an integrated analysis of its antecedents, attributes, and consequences indicates that certain conditions are essential for effective reflective practice. These include a psychologically safe environment, experienced facilitators, peer feedback and collaboration, and sufficient time and learning opportunities. These findings suggest that reflective practice extends beyond individual introspection, and requires a supportive context that encourages dialogue and feedback, ultimately enabling learners to translate re-

flexion into meaningful actions in clinical practice.

The findings of this review suggest several practical implications for nursing education and clinical practice. Given that reflective practice is facilitated by environmental and interpersonal conditions, educational and clinical settings should move beyond individual reflective tasks and intentionally design supportive structures that enable interaction and feedback. For nurse educators, this may involve incorporating facilitated group debriefings, peer discussion, and guided feedback into clinical education. In clinical settings, organizational support for reflective practice may include ensuring psychological safety, allocating protected time for reflective dialogue, and fostering mentorship or peer-supported learning environments. Such structural support is essential for enabling nurses to translate reflective insights into meaningful behavioral change and practice improvement, rather than limiting reflection to an individual cognitive activity.

This integrative review had several limitations. First, it focused exclusively on concept analysis papers to compare the concepts of reflection and reflective practice. Although this approach was useful for systematically identifying the theoretical structure of each concept, it may offer limited insight into how these concepts are implemented and function in real clinical or educational contexts. Therefore, the conceptual attributes identified in this review should be interpreted with caution when considering their applicability in practical settings. Second, as the study emphasized theoretical comparisons based on literature analysis, it did not empirically verify how conceptual structures and application methods manifest in practice. Consequently, a limitation remains in that the current findings are not supported by sufficient empirical evidence regarding how reflection and reflective practice are implemented and what outcomes they produce in clinical or educational environments. Third, only studies published in English or Korean were included, which may have introduced language bias and resulted in the exclusion of relevant concept analysis studies published in other languages. Finally, although a structured quality appraisal was conducted, no standardized appraisal tool specifically designed for concept analysis studies was available. As a result, the quality assessment relied on criteria derived from established methodological frameworks, which may have limited the objectivity and comparability of the appraisal process. Despite these limitations, this integrative review synthesis existing concept analysis studies to summarize how reflection and reflective practice have been described and discussed in nursing.

## CONCLUSION

This integrative review aimed to synthesize and compare findings from concept analysis studies on reflection and reflective practice, focusing on their antecedents, attributes, consequences, and applications, to offer practical guidance for effective implementation. Reflection was found to be primarily an internal process in which individuals critically examine their experiences to gain new insights and deepen self-understanding. Overall, reflection was frequently discussed within educational contexts, where it enabled learners to analyze clinical experiences and develop knowledge and thinking skills through reflective engagement. Therefore, reflection was recognized as a valuable educational strategy that supports that supports the development of self-awareness and critical thinking through reflective exploration of personal experiences.

In contrast, reflective practice was characterized as an action-oriented process situated in clinical contexts, in which reflection is actively translated into professional action through interpersonal interaction, feedback, and collaborative engagement. Rather than remaining at the level of individual introspection, reflective practice emphasizes the application of reflective insights to practice, supporting behavioral adjustment, clinical decision-making, and practice improvement. In this way, reflective practice functions as a mechanism for integrating experiential learning with action, enabling nurses to adapt their practice in response to complex clinical situations.

Future research should explore whether reflection and reflective practice are appropriately applied in clinical and educational settings according to their respective characteristics. Additionally, given the informal and variable nature of reflective practice, future research should focus on developing structured guidelines tailored to various clinical situations.

## CONFLICTS OF INTEREST

The authors declared no conflict of interest.

## AUTHORSHIP

Study conception and design acquisition - LD and KK; Data collection - LD and KK; Analysis and interpretation of the data - LD and KK; Drafting and critical revision of the manuscript - LD and KK.

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**Appendix 1. Search Strategy Used in Database**

Data base	Keyword Used
No.	Search queries
#1	"Nursing"[MeSH]
#2	Nurs*
#3	#1 OR #2
#4	"Cognitive Reflection"[MeSH]
#5	Reflect* OR "Reflective Practice" OR "Reflective Thinking"
#6	#4 OR #5
#7	"Concept Formation"[Mesh]
#8	"Concept* analysis" OR "Concept* Mapping"
#9	#7 OR #8
#10	#3 AND #6 AND #9

MeSH=Medical subject headings.

**Appendix 2. List of Studies Included in an Integrative Review**

- A1. Chabeli M, Muller M. Reflective thinking in clinical nursing education: a concept analysis. *Curationis*. 2004;27(4):37-48. <https://doi.org/10.4102/curationis.v27i4.1019>
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## Appendix 3. Quality Appraisal of Included Studies

No.	Author (year)	Country	Evaluation Criteria	Full	Partial	Not
A1	Chabeli & Muller (2004)	South Africa	Was the target concept clearly articulated and purpose of the concept analysis explicitly stated?	√		
			Did the study thoroughly investigate how the concept has been used in academic literature?	√		
			Was a model case presented that comprehensively represents the defining attributes of the concept?		√	
			Were the defining attributes of the concept inductively derived from the cases or literature?	√		
			Were the antecedents and consequences of the concept analyzed?	√		
			Did the analysis result in a practical definition applicable to research or clinical practice?	√		
A2	Duffy (2007)	Ireland	Were the cases presented based on actual sources such as literature, observations, or interviews?		√	
			Was the target concept clearly defined?	√		
			Were surrogate terms and related or similar concepts explored?	√		
			Was the scope and domain of the literature search appropriately determined?	√		
			Were the core attributes of the concept appropriately derived?	√		
			Were the references, antecedents, and consequences of the concept identified?	√		
			Was the concept clearly distinguished from similar or related concepts?		√	
			Was a model case presented to illustrate the concept clearly?	√		
			Did the analysis account for changes in the concept over time and across contexts?	√		
A3	Goulet et al. (2016)	Canada	Was the analysis conducted in a flexible, iterative, and non-linear manner?		√	
			Are the findings applicable to practice, theory development, or instrument construction?	√		
			Did the analysis clearly explain that the concept is not fixed but socially and contextually constructed?	√		
			Was the method of data collection explicitly described?	√		
			Was the standpoint adopted by the analyst clearly identified?		√	
			Were interpretive dimensions derived from the data?	√		
			Were similarities and differences among the dimensions compared and refined?	√		
A4	Lewis (2012)	USA	Was the final result of the analysis presented in the form of an explanatory matrix?	√		
			Did the analysis proceed in the sequence of standpoint, dimensions, matrix?		√	
			Did the analyst articulate and critically examine their own theoretical and social assumptions?		√	
			Was a concrete phenomenon observed and described from practice or research settings?	√		
			Were the observed elements structured and categorized to identify recurring patterns?	√		
A5	Mulli et al. (2021)	Canada	Was the concept defined operationally for practical or research application?	√		
			Were the components of the concept and their interrelationships structured to form a conceptual model?	√		
			Was a hypothesis for application in research or practice proposed based on the derived concept?	√		
			Was a clear and logical rationale provided for selecting the concept?	√		
			Was the purpose of the concept analysis clearly stated?	√		
			Was the concept thoroughly explored across relevant literature?		√	
			Were defining attributes logically derived from the data?	√		
			Was a model case presented that reflected all key attributes?	√		
			Were additional case types (e.g., borderline, contrary) used to clarify boundaries?	√		
			Were antecedents and consequences clearly described?	√		
A5	Mulli et al. (2021)	Canada	Were empirical referents identified for measurement or observation?		√	
			Was the final definition consistent with attributes, cases, and context?	√		
			Was Walker & Avant's process applied systematically?	√		
			Was the literature diverse enough to reflect multiple perspectives?	√		

## Appendix 3. Quality Appraisal of Included Studies (Continued)

No.	Author (year)	Country	Evaluation Criteria	Full	Partial	Not
A6	Nagle & Foli (2020)	USA	Was a clear and logical rationale provided for selecting the concept?	√		
			Was the purpose of the concept analysis clearly stated?	√		
			Was the concept thoroughly explored across relevant literature?		√	
			Were defining attributes logically derived from the data?	√		
			Was a model case presented that reflected all key attributes?	√		
			Were additional case types (e.g., borderline, contrary) used to clarify boundaries?	√		
			Were antecedents and consequences clearly described?	√		
			Were empirical referents identified for measurement or observation?		√	
			Was the final definition consistent with attributes, cases, and context?	√		
			Was Walker & Avant's process applied systematically?	√		
					√	
A7	Patel & Metersky (2022)	Canada	Was the target concept clearly defined?	√		
			Were surrogate terms and related or similar concepts explored?		√	
			Was the scope and domain of the literature search appropriately determined?	√		
			Were the core attributes of the concept appropriately derived?	√		
			Were the references, antecedents, and consequences of the concept identified?	√		
			Was the concept clearly distinguished from similar or related concepts?		√	
			Was a model case presented to illustrate the concept clearly?	√		
			Did the analysis account for changes in the concept over time and across contexts?	√		
Was the analysis conducted in a flexible, iterative, and non-linear manner?		√				
Are the findings applicable to practice, theory development, or instrument construction?	√					
A8	Sadlon (2018)	USA	Is the concept clearly defined and well distinguished from related concepts?	√		
			Is the concept used in actual practice and useful for explaining phenomena?		√	
			Is the concept used consistently in the literature and applied appropriately within context?	√		
			Does the concept maintain clear boundaries when integrated with other concepts, and is it theoretically coherent?	√		
			Do the included disciplinary perspectives offer diverse viewpoints, and were selection criteria described?		√	
			Was literature sampling conducted appropriately with the concept as the central unit of analysis?	√		
			Were both intra-disciplinary and interdisciplinary analyses conducted?		√	
Were the findings synthesized into a theoretical definition reflecting the four principles?	√					
A9	Tashiro et al. (2013)	Japan	Was the target concept clearly defined?	√		
			Were surrogate terms and related or similar concepts explored?		√	
			Was the scope and domain of the literature search appropriately determined?	√		
			Were the core attributes of the concept appropriately derived?	√		
			Were the references, antecedents, and consequences of the concept identified?	√		
			Was the concept clearly distinguished from similar or related concepts?		√	
			Was a model case presented to illustrate the concept clearly?	√		
			Did the analysis account for changes in the concept over time and across contexts?	√		
Was the analysis conducted in a flexible, iterative, and non-linear manner?		√				
Are the findings applicable to practice, theory development, or instrument construction?	√					