



Self-Directed Learning: A Concept Analysis

Sumayya Bibi¹, Zareena Parveen², Asifa Jamil³, Mehreen Aslam⁴, Azra Mehmood⁵

¹ National University of Medical Sciences, Rawalpindi, Pakistan. Email: sumayyamalik405@gmail.com

² College of Nursing DHQ Bhakkar, Pakistan.

³ National University of Medical Sciences, Rawalpindi, Pakistan.

⁴ College of Nursing, National University of Medical Sciences, Rawalpindi, Pakistan.

⁵ Fuji Foundation University Rawalpindi, Pakistan.

ARTICLE INFO

Article History:

Received: September 04, 2024

Revised: March 29, 2025

Accepted: March 30, 2025

Available Online: April 01, 2025

Keywords:

Attributes

Antecedents

Consequences

Nursing Students

Self-directed Learning

Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

Nurses must demonstrate self-directed learning competencies. Nursing education strongly depends on self-directed learning because it promotes academic achievement as well as future adaptability. This study investigates self-directed learning in nursing education through whole-scale concept analysis to describe autonomy together with motivation, goal orientation, self-evaluation, and critical thinking as essential characteristics to evaluate their antecedents and consequences and establish their measurable indicators. This research meets the requirement for independent learning techniques in nursing education through its solution of theoretical-to-clinical knowledge. This research used Walker and Avant's eight-step concept analysis methodology to perform a systematic review of published studies. The research evaluated the main characteristics while studying both necessary conditions and essential effects together with concrete examples of self-directed learning. The research utilized quantitative together with qualitative data outcomes for synthesis purposes. The researchers identified autonomy, self-motivation, initiative, goal orientation, self-assessment and critical thinking as six main attributes. The study involved evaluating empirical referents to analyze the practical usage of the concept. The research findings established that nursing education becomes more effective when self-directed learning methods are incorporated. Educational ownership became accessible for students because of the attributes that included autonomy along with self-motivation and initiative, goal orientation, self-assessment and critical thinking. Three key components which served as antecedents were students' desire to learn, their clear understanding of personal learning needs and goals along with having appropriate resources to study. The educational process led to better academic performance together with enhanced skills development as well as increased self-confidence and independent learning and the establishment of life-long learning competencies. Integrating self-directed learning practices in nursing education and clinical work will result in better academic results and superior patient care outcomes.

© 2025 The Authors, Published by IRASD. This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License

Corresponding Author's Email: sumayyamalik405@gmail.com

1. Introduction

The notion can be simple or complex, but it must be relevant to the research or practice area. Concepts are terms that describe occurrences that occur in nature or in cognition. Concept is defined as an abstract phrase derived from traits (Loeng, 2020). Any phenomenon that can be expressed in words exists as reality and enables people to convey meaning. It is also the foundation of nursing theories. Concept analysis is the process of meticulously examining concepts to clarify their importance in order to gain a thorough comprehension (Morse, 1995). In adult education, the concept of self-directed learning is critical. Walker and

Avant first introduced the concept analysis process to nurses in 1986. Building upon Wilson's methodology, they refined it to make it accessible for graduate students studying nursing-related issues. In their 2011 work, Walker and Avant outlined three distinct procedures: concept analysis, concept development, and concept synthesis. These terms collectively refer to the systematic process of clarifying the meanings of scientific concepts. In nursing, the most commonly used approaches are concept analysis and concept development, which involve examining concepts to determine their level of maturity, internal structure, usage, representativeness, and relationships with other concepts. Essentially, concept analysis and development aim to deepen understanding by exploring the significance of concepts. Concept analysis is particularly useful for assessing the evolution of nursing concepts by identifying knowledge gaps and determining the need for refining or clarifying concepts with multiple interpretations. It also evaluates the relevance of competing concepts by examining the alignment between a concept's definition and its practical application. Moreover, it assesses whether a concept's definition is consistent with its therapeutic use (Morse et al., 1996).

Self-directed learning (SDL) has emerged as a prominent educational strategy in contemporary education, particularly in higher education and professional training, including nursing education (Wong, Tang, & Cheng, 2021). SDL is a multidimensional concept that encompasses cognitive, affective, and behavioral processes. The "self" refers to the core personality or true nature of an individual. According to Knowles (1975), self-directed learning is a process in which individuals take initiative in identifying their learning needs, setting learning goals, finding appropriate resources, selecting and applying effective strategies, and evaluating learning outcomes—largely independent of external guidance (p. 18). In SDL, learners themselves choose their learning objectives, resources, preferred learning methods, and reflective questions. Self-directed learning has become a well-understood and widely discussed concept in education. It remains relevant today as more learners are being incorporated into learning settings (e. g., in nursing education, where students are expected to be more responsible for their own learning) (Loeng, 2020; Wong, Tang, & Cheng, 2021). The nursing profession, according to the International Council of Nurses (2021), is an area of health care that includes: Preventing illness and improving the health of individual, family, and community members by providing medical and allied health care. Nursing includes the application of scientific knowledge, the use of technical skills, and a concern for patient care. In nursing education, self-directed learning promotes students' autonomy, critical thinking, and problem solving skills—which are necessary for making informed therapeutic decisions (Ojekou & Okanlawon, 2019). Self-directed learning is associated with improved educational outcomes, high levels of motivation, and greater learner satisfaction. As a result, concept analysis of the concept of self-directed learning can provide an in-depth understanding of the basic elements of self-directed learning, related concepts, and potential outcomes (Lee, Park, & Yu, 2024). Furthermore, further investigation of the causes and effects of self-directed learning will allow for the development and evaluation of feasible treatments to promote self-directed learning. As a result, concept analysis of the concept of self-directed learning can provide valuable information on the concept and potential benefits of this kind of learning in nursing education.

2. Literature Review

Self-directed learning is one of the most important aspects of learning. Self-directed learning has been shown to have a high impact on learning among many age groups. The type of learning that self-directed students engage in varies broadly across cognitive and metacognitive theories. These approaches involve participants actively taking part in the learning process.. These pupils are often autonomous, diligent, independent, disciplined, confident in themselves, and goal-oriented (Merriam & Baumgartner, 2020). As a result, incorporating SDL into nursing guarantees that both students and professionals are ready to face the difficulties of a rapidly changing healthcare ecosystem. It promotes crucial competences such as autonomy, adaptability, and lifelong learning, making it essential for the nursing profession (Kaulback, 2020). SDL is utilized in a variety of settings, including schooling, corporate learning, and lifelong learning. Murad et al. (2010) identified SDL as one of the lifelong learning abilities. Nursing practitioners and students must be prepared for lifelong learning since healthcare environments are complex and ever-changing. Nursing knowledge and practice are evolving rather than fixed (Shirazi et al., 2017). As a result, it is critical that nursing school prepare nurses to be lifelong learners who are willing to learn in any context and possess the requisite learning abilities for their career (Çöplü & Tekinsoy Kartın, 2019). This

can be performed in a variety of ways; for example, nursing educators must understand students' interests and learning styles in order to select the best techniques for instruction and evaluation (Wided & Abdulaziz, 2024; Wided & Alfalih, 2023).

Historically, didactic teaching approaches were employed extensively in the nursing education field. However, due to the present status of nursing education, these strategies are no longer applicable. Today's nursing programs emphasize adult learning methodologies such as self-directed learning (Rui, Mohamad Nasri, & Mahmud, 2024). If SDL is organized correctly, it results in more active learning, allowing students to develop more thoughtful perspectives on the subjects rather than superficial ones. Self-directed learning is critical in preparing nurses to meet the demands of today's health care environment. Nurse educators need to be aware of self-directed learning to facilitate nurses acquiring the skills they require (Yurdal & Toraman, 2023). As a result there is a huge research gap in Pakistan with regards to concept analysis of self-directed learning (SDL) in nursing education and practice. It is common to know that SDL is widely used in the world but is not widely deployed in the cultural and educational context of Pakistan. Traditional approaches to education, limitations on learning resources and cultural customs are some reasons for lack of implementation of SDL. Yet, lack of research needs to be done on the competencies needed for SDL by nursing personnel and their impact on career advancement and patient outcomes. There is also a need to be done on technological support for SDL in the field of Nursing in Pakistan. Although these problems can be addressed through the research pertaining to these issues they could raise valuable questions for further development of nursing education and professional development in Pakistan by using SDL.

3. Method

It follows Walker and Avant's (2011; 14) eight step concept analysis method for investigating self-directed learning in the context of nursing education. This approach contains eight systematic steps common in nursing research to explore the meaning of complex concepts. The first step in this study was to select the concept—self-directed learning—and the second step defined the goal of the analysis, which is to develop insight into how the concept might contribute to a deeper understanding of the impact of self-directed learning on nursing students' learning. The third step found all possible uses of the concept but especially the use of the concept across nursing institutions. The fourth step of the research agenda examines the key attributes that define self-directed learning: in the fifth step, a model case is developed that shows how this concept is applied in practice; the sixth step presents borderline and contradictory cases to illustrate which attributes are in the middle, in the middle of the case or not at all. In the seventh step, the antecedents and consequences are considered – factors that predispose to the introduction of the concept as well as effects of its implementation – and in the eighth step, empirical referents are defined (i. e., indicators that can be measured to evaluate the effectiveness of self-directed learning in the teaching of nursing).

In line with Walker and Avant 's guidelines for data collection, the research data for this analysis was carefully selected so that all relevant information was included. A number of databases and databases such as Google Scholar, PubMed, and research gate were used to provide access to many different works, articles, and papers, as well as empirical research, covering all aspects of self-directed learning in nursing education. This systematic methodology allowed the study to examine the theoretical aspects of self-directed learning in nursing in order to provide a solid basis for analysis. Using this systematic approach the research study sought to understand how nursing students use their personal qualities and insights about self-directed learning in order to improve their educational outcomes. These steps explained all aspects of the concept and empirical references (Walker & Avant, 2005).

4. Results

The principal focus of this concept analysis was self-directed learning under Walker and Avant's model, which states that in order to establish the validity and applicability of a concept it needs to be tested in many different contexts. Self-directed learning, for its part, was selected from the nursing realm because of its role in improving student learning and motivation. The primary purpose of the analysis is to define self-directed learning and develop a greater understanding of its benefits in nursing education, specifically, to identify the aspects, antecedents, consequences and empirical referents associated with the concept as well as serve as a rationale for using the concepts in practical nursing education. Subsequently, the analysis involved exploring all potential applications of the concept. A review of the literature

highlighted that self-directed learning is a process in which individuals take initiative in identifying their learning needs, setting goals, locating resources, selecting and applying strategies, and evaluating outcomes (Hwang & Oh, 2021). SDL is rooted in theories emphasizing autonomy, self-motivation, and experiential engagement, especially those focused on adult learning and personal agency. Among these, andragogy is the most direct theoretical foundation, supported by insights from humanism, constructivism, and self-determination theory. According to andragogy theory adults learn differently from children, with a greater emphasis on self-direction, practical application, and drawing from prior experience. Furthermore, Knowles' principles of andragogy are fundamental to self-directed learning, highlighting that adult learners prefer to take responsibility for their learning and thrive in environments that foster autonomy and self-guidance (Knowles, 1978).

Self-directed learning in nursing education is strongly related to Knowles (1975) Andragogy theory, which posits that adult learners are autonomous, self-motivated, and problem-oriented. Furthermore, Self-Determination Theory (Deci & Ryan, 1985) promotes SDL by emphasizing the importance of intrinsic motivation, autonomy, and competence advancement in professional education. Integrating these theories provides a solid platform for adopting SDL in nursing curricula, fostering lifelong education, and developing clinical reasoning skills. Edward Deci and Richard Ryan explored how human motivation is driven by the need for autonomy, competence, and relatedness (Ryan & Deci, 2023). They highlighted that self-directed learning reflects the principles of self-determination theory by prioritizing autonomy and self-motivation as essential components of effective learning of nursing students. This concept of self-directed learning has been integrated into various nursing theories. For instance, theories like Benner's Novice to Expert Model, Johnson's Behavioral System Model, and Andragogy Theory are congruent with SDL in nursing education. These theoretical perspectives emphasize the importance of autonomous learning, learning by experience, and critical thinking in ensuring success for nursing students and practicing nurses within transitional healthcare contexts. Similarly, Jean Watson's Theory of Human Caring emphasized that nursing is a caring relationship that enhances the dignity, autonomy, self-motivation and self-awareness of both nurse and patient through self-directed reflection and learning. These nursing theories accredited the vital significance of self-directed learning in nursing education to fostered the students' autonomy, self-motivation, and critical thinking. In Pakistan, nursing education is highly reliant on traditional lecture-based approaches, limiting the implementation of SDL. Key problems include a high student-to-faculty ratio, a scarcity of digital learning materials, and language barriers. Furthermore, pupils are frequently conditioned to passive learning rather than self-directed inquiry. Addressing these systemic difficulties by integrating technology-enhanced learning and faculty training in SDL approaches may dramatically improve nursing education in the country.

The concept of the self-directed learning encompasses several defining attributes that are crucial in nursing education. These attributes represent the fundamental qualities that nursing students and professionals must possess to effectively integrate this concept into nursing students' learning. The key defining attributes of self-directed learning concept (a) Autonomy (b) Self-Motivation (c) Initiative (d) Self-assessment (e) Goal Orientation (f) Critical thinking. Autonomy in nursing education, allows students to take responsibility for their learning by independently identifying knowledge gaps, selecting resources, and seeking clinical experiences. Kaulback (2020) emphasizes that autonomous learning strategies, such as goal setting and self-monitoring, enhance students' cognitive engagement and promote deeper learning. Self-motivation drives nursing students to consistently engage in learning activities, even in the absence of external pressure, ensuring their growth aligns with professional expectations (Yurdal & Toraman, 2023). For example, A nursing student voluntarily attends workshops on advanced wound care techniques to improve patient outcomes. Research shows that self-motivated nursing students demonstrate higher academic achievement and clinical competence, enabling them to excel in their roles (Lee, Park, & Yu, 2024). Initiative in nursing students refers to their proactive approach to finding learning opportunities, such as completing additional clinical hours or researching evidence-based practice. For example, A nursing student decides to shadow an experienced nurse to learn more about critical care unit protocols. According to recent research, students who take considerable initiative are more confident in applying their knowledge to patient care, indicating that they are equipped for professional practice (Çöplü & Tekinsoy Kartın, 2019).

Self-assessment empowers nursing students to critically evaluate their learning achievements and identify areas for improvement, promoting ongoing professional development. For example, A student continually assesses their clinical performance, receiving feedback from mentors and modifying study techniques to better their understanding of pharmacology. Studies underscore that nursing students who engage in self-assessment are more likely to achieve clinical competence and adapt effectively to feedback (Hwang & Oh, 2021). Goal orientation helps nursing students define clear learning objectives, such as mastering specific skills or completing certifications, which guide their academic and clinical efforts. For example: A student sets a goal to achieve proficiency in intravenous catheterization and allocates time to practice this skill during simulation labs. Recent studies demonstrates that goal-oriented nursing students are more focused and efficient in academic and clinical contexts (Li et al., 2024). Critical thinking enables nursing students how to critically analyze complex patient conditions, evaluate evidence-based interventions, and make appropriate clinical decisions. To design a care plan, a nursing student utilizes critical thinking to synthesize data from a patient's medical history, results of lab tests, and physical assessment. Developing critical thinking skills is fundamental for nursing students, enabling them to handle high-pressure clinical scenarios effectively (Obied & Gad, 2017). Incorporating these attributes into nursing education ensures that students are not only academically prepared but also capable of delivering high-quality, patient-centered care in diverse clinical environments. SDL fosters the adaptability, critical thinking, and self-reliance essential for success in nursing practice. Self-directed learning (SDL) plays an essential role in nursing education and is essential for students to function effectively in the rapidly changing health care field. For the study of self-directed learning, the discovery of model, borderline, and negative models cases can lead to increased understanding of the critical properties of the concept and how the concept is applied in academic and clinical areas. These cases help clarify the real meaning of the notion beyond cases where it does not appear at all or appears improperly.

Table 1: Attributes of self-directed learning

Defining attributes	Description
Autonomy	The learner's capacity to take independent control of their learning process, including setting goals, selecting resources, and evaluating progress.
Self- Motivation	The autonomous learning strategies, such as goal setting and self-monitoring, enhance students' cognitive engagement and promote deeper learning (Kaulback, 2020). The internal drive that propels learners to initiate and sustain their learning activities without external prompting. Positive correlation between self-directed learning readiness and motivation, indicating that higher levels of self-motivation contribute to better academic achievement (Yurdal & Toraman, 2023).
Initiative	It involves the proactive pursuit of learning opportunities, where learners actively seek out new knowledge and experiences. The learners engaged in self-directed learning exhibit characteristics such as setting clear goals and demonstrating self-assuredness, reflecting a high degree of initiative (Çöplü & Tekinsoy Kartın, 2019).
Self -assessment	The ability to critically evaluate one's own learning needs, progress, and outcomes, facilitating adjustments to strategies and goals. The learners displayed autonomy by enacting self-assessment and self-reflection, which are crucial for self-directed learning (Hwang & Oh, 2021).
Goal Orientation	The focus on setting, pursuing, and achieving specific learning objectives, guiding the direction and purpose of the learning process. Self-directed learners effectively set and attain goals, which enhances their academic performance and personal development (Li et al., 2024).
Critical thinking	Critical thinking involves analyzing, synthesizing, and evaluating information to make informed decisions and solve problems effectively. Developing critical thinking skills is essential for self-directed learning, as it enables learners to assess the

The Model Case depicts a situation in which all the key attributes of the concept are fully exhibited (Walker & Avant, 2005). SDL is essential in nursing education, and it reinforces independence, self-motivation, goal seeking, initiative, self-evaluation, and critical thinking. These attributes enable nursing students to independently identify their learning needs, set clear objectives, and pursue strategies to achieve them. In contrast, a borderline case represents a scenario where only certain attributes of the concept are present (Walker & Avant, 2005). Arifa is a second-year nursing student, attending all her lectures, and giving in her assignments well on time. However, at times she has difficulties while trying to master certain complex concepts related to pharmacology. She takes a limited approach; thus far, she relies completely on the instructor's notes and scheduled tutorials and makes no efforts towards accessing extra resources or adapting the learning approach that would meet those challenges. He passively waits for feedback from the instructor about his progress instead of assessing it himself. *Analysis:* Arfa does show some sense of responsibility in that he attends classes and does the tasks, but the qualities required for SDL include autonomy, self-motivation, taking the initiative, and critical thinking, all of which he lacks. Partially, his approach is self-directed, but it depends on external guidance; hence, this can be called a borderline case of SDL. The contrary case shows a scenario where none of the defining attributes are displayed (Walker & Avant, 2005). Ali, a second-year nursing student, skips lectures, neglects assignments, and makes no effort to address his struggles with pharmacology. He avoids seeking help, exploring resources, or setting goals, instead relying entirely on instructors for answers. *Analysis:* This contrary case highlights a complete absence of self-directed learning (SDL) attributes, such as motivation, initiative, and autonomy. The attributes, antecedents and consequences of self-directed learning are essential for understanding how this concept is triggered and what outcomes can be anticipated. Antecedents refer to the factors required for the concept to emerge, while consequences signify the results that follow from its implementation (Walker & Avant, 2005).

4.1. Antecedents

Before the occurrence of a concept, there must be the presence of some circumstances called antecedents (Walker & Avant, 2011. "Self- directed learning is a process in which individuals take control of their own learning and are responsible for determining what and how they will learn"(O'Shea, 2003).

Table 2: Antecedents of the concept "Self -directed learning"

Antecedents	Description
Motivation to Learn (Intrinsic or Extrinsic)	Nurses must be motivated to learn, whether through intrinsic factors (personal interest in improving patient care) or extrinsic factors (such as career advancement or meeting regulatory requirements). Motivation drives nurses to engage in continuous learning (Deci & Ryan, 1985; Thu <i>et al.</i> , 2024).
Awareness of a Learning Need or Goal	In nursing, awareness of a specific learning need or goal such as improving clinical skills and to direct their learning efforts effectively, enabling focused and purposeful self-direction. (Knowles, 1975; Wong <i>et al.</i> , 2021).
Access to Resources and Tools for Learning	Nurses require access to resources such as (online databases, evidence-based guidelines, continuing education programs, and technology, or support) is crucial for self-directed learning. These resources enable them to pursue professional development and stay informed about best practices. such as materials (Knowles, 1975; Thu <i>et al.</i> , 2024).
Basic Skills in Time Management and Self-Regulation	Effective self-directed learning requires nursing students to manage their time well and regulate their own learning process, ensuring they stay on track and motivated throughout the learning experience. Nurses must balance their clinical responsibilities with their academic learning goals, which requires skills in

prioritizing and organizing tasks (Deci & Ryan, 1985; Sadeghi et al., 2024).

These antecedents create the foundation for successful self-directed learning in nursing, ensuring nurses are equipped to continuously improve their skills and knowledge in patient-centered care and academia.

4.2. Consequences

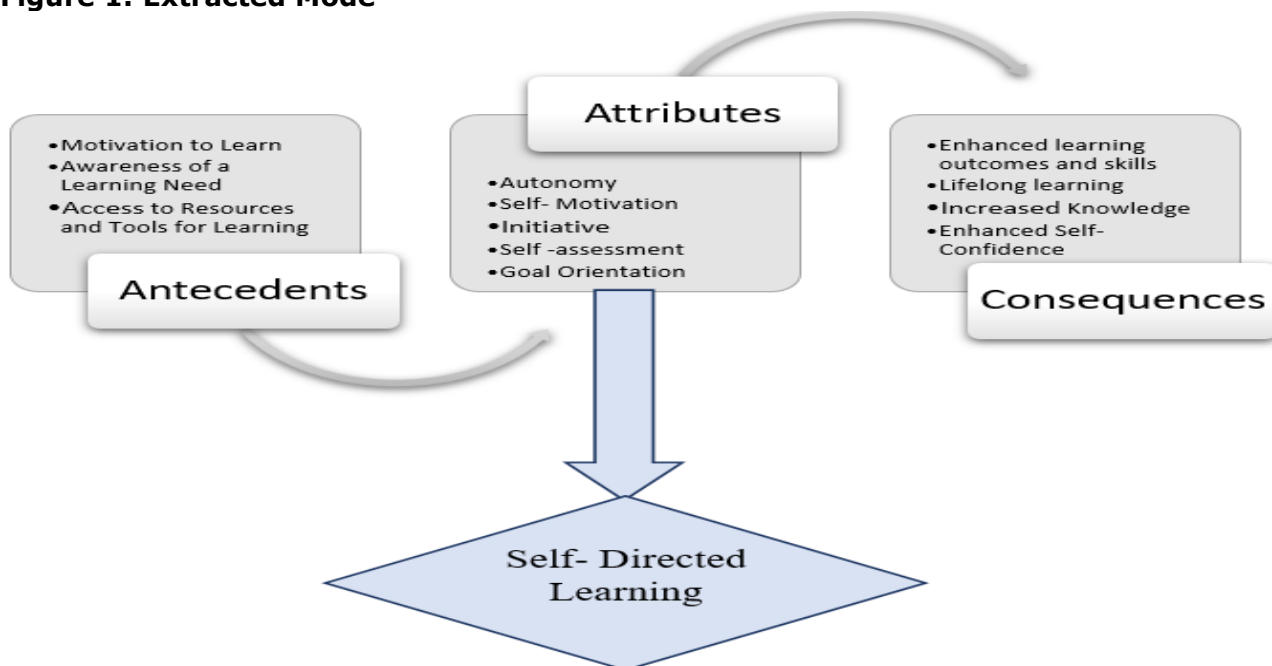
After examination, the resultant events of concept analysis called consequences (Walker & Avant, 2005). Self-directed learning has numerous consequences for individuals, including

Table 3: Consequences of the concept "Self -directed learning"

Consequences	Description
Enhanced Learning Outcomes and Skills	Engaging in SDL enables nursing students to acquire and refine essential skills, leading to improved patient care and professional competence (Nazarianpirdosti et al., 2021).
Enhanced Self-Confidence and Independence in Learning	SDL fosters greater self-confidence and autonomy among nurses, empowering them to take charge of their professional development and learning (Govindan et al., 2023).
Lifelong Learning Capabilities	By cultivating SDL, nurses develop the ability to continuously seek knowledge and adapt to evolving healthcare practices, ensuring sustained professional growth (Ryan & Deci, 2024).
Increased Knowledge or Skills in the Targeted Area	SDL allows nurses to focus on specific areas of interest or need, leading to deeper expertise and proficiency in those domains (Sadeghi et al., 2024).
Better Problem-Solving and Critical Thinking Abilities	Engaging in SDL enhances nurses' critical thinking and problem-solving skills, enabling them to make informed decisions in complex academic and clinical situations. (Huang et al.,2023).
Improved Adaptability in Dynamic Environments:	SDL equips nurses with the skills to adapt to changing healthcare environments, ensuring they remain effective and responsive to new challenges. (Hwang & oh, 2021).

Overall, self-directed learning can have positive consequences for individuals by improving motivation, learning outcomes, critical thinking and problem-solving skills, independence, time management skills, and encouraging lifelong learning. SDL can be usefully incorporated into nursing education by encouraging relationships, increasing self-motivation, and bettering learning and care experiences through fostering deeper bond between the teacher and the learner. The recognition of antecedents and consequences, as well as the elaboration of constructed cases, provides a valid orientation on how to approach the implementation of SDL in practice. Constituents, defining characteristics, and implications of self-directed learning are described. Figure 1 visually presents the inter-relations between the causes, characteristics and effects of SDL. Empirical referents, which serve as measurable indicators, enable the evaluation and description of SDL in practice. These referents assist nurses in assessing how successfully they are applying the key attributes of SDL within their educational and clinical environments. Additionally, Figure 1 clearly depicts the causes, characteristics, and effects associated with the concept of self-directed learning. Key empirical referents for the self- directed learning are observable behavior or characteristics that indicate the presence of a particular concept. In the case of Self-directed learning of nurses, some empirical referents may include: Specific learning goals for themselves, which may include acquiring new knowledge, improving skills, or enhancing their professional development. Self-directed learners actively seek out learning resources such as books, journals, online courses, and professional development opportunities (Govindan et al., 2023; Rui, Mohamad Nasri, & Mahmud, 2024). Furthermore, they evaluate their learning outcomes and reflect on their learning experiences. Lastly, the self-directed learners take responsibility for their own learning, making decisions about what to learn, how to learn.

Figure 1: Extracted Mode



5. Discussion

Self-directed learning (SDL) is a critical concept in nursing education as it allows students to assume responsibility for their learning by fostering independence, self-motivation, initiative, goal-setting, self-evaluation, and critical thinking. These attributes assist nursing students to fit with increasingly flexible and dynamic healthcare environments, and to foster lifelong learning and enhanced capacity for patient-centered practice (Garrison, 1997; Knowles, 1975). SDL challenges learners to clarify their learning needs, set goals and implement strategies that will enhance their success both academically and clinically. Additionally, SDL is congruent with adult learning theories, such as Malcolm Knowles' (andragogy), a theory that recognizes the learners' active participation in the learning process being particularly, demonstrated among professional careers including nursing (Merriam & Baumgartner, 2020). Validated instruments measures that evaluate students' readiness and engagement in the process of self-directed learning which will serve as empirical benchmarks for SDL in nursing education.

The Self-Directed Learning Readiness Scale assesses the degree to which a person possesses autonomy, motivation, and self-management (Fisher, King, & Tague, 2001). There is also the Self-Rating Scale of Self-Directed Learning that evaluates students' capability to plan, carry out and assess their own learning activities (Williamson, 2007). These tools will give measurable information about how well undergraduate nursing schools have applied the principle of self-directed learning. SDL holds significant value in the nursing curricula since it bequeaths the capacity to develop critical thinking and problem-solving skills. Nursing students who are involved in SDL show better appreciation for their learning process, hence making self-evaluations and corrections where necessary (Brookfield, 2009). Because it promotes initiative and self-appraisal, SDL helps students close the gap between theoretical knowledge and its actual application in the clinical setting (Murad et al., 2010). Increasing healthcare demands make nursing students more flexible and competent regarding evidence-based practice and lifelong learning through SDL.

6. Conclusion

Nursing education and practice depend largely on self-directed learning. SDL is a major concept in fostering lifelong learning and flexibility under changing conditions. Its unique attributes, precedents, and outcomes form the basis for its application in education, professional development, and the like. The practice of self-directed learning plays a critical role in both personal and professional growth while enabling nurses to keep up with medical advancements and adjust to evolving healthcare settings to provide excellent patient treatment. Nurses who self-direct their learning process gain autonomy and independence

which enables them to chart their own educational journey. Self-directed learning enables nurses to develop confidence and drive while providing them with personal satisfaction. The fast-paced evolution of healthcare requires nurses to engage in self-directed learning to retain their professional competence and ensure patient safety and quality care. Nurses need to develop self-directed learning capabilities to respond to healthcare changes and offer top-notch patient care.

References

- Brookfield, S. D. (2009). Self-directed learning. In *International handbook of education for the changing world of work: Bridging academic and vocational learning* (pp. 2615-2627). Springer. https://doi.org/https://doi.org/10.1007/978-1-4020-5281-1_172
- Çöplü, M., & Tekinsoy Kartın, P. (2019). Professional self-concept and professional values of senior students of the nursing department. *Nursing Ethics*, 26(5), 1387-1397. <https://doi.org/10.1177/0969733018761171>
- Deci, E. L., & Ryan, R. M. (1985). Conceptualizations of Intrinsic Motivation and Self-Determination. In *Intrinsic Motivation and Self-Determination in Human Behavior* (pp. 11-40). Springer US.
- Fisher, M., King, J., & Tague, G. (2001). Development of a self-directed learning readiness scale for nursing education. *Nurse Education Today*, 21(7), 516-525. <https://doi.org/https://doi.org/10.1054/nedt.2001.0589>
- Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult education quarterly*, 48(1), 18-33. <https://doi.org/https://doi.org/10.1177/074171369704800103>
- Govindan, S. N., Singh, H. K. D., Ling, L. W., & Sekar, M. (2023). Effect of blended self-directed learning on nursing students: Quasi-experimental approach. *Journal of Education and Health Promotion*, 12(1). https://doi.org/10.4103/jehp.jehp_209_23
- Hwang, Y., & Oh, J. (2021). The Relationship between Self-Directed Learning and Problem-Solving Ability: The Mediating Role of Academic Self-Efficacy and Self-Regulated Learning among Nursing Students. *International Journal of Environmental Research and Public Health*, 18(4), 1738. <https://doi.org/10.3390/ijerph18041738>
- International Council of Nurses, I. (2021). International Council of Nurses (ICN). *International Council of Nurses*. <https://www.icn.ch>
- Kaulback, M. K. (2020). Correlating Self-directed Learning Abilities to Lifelong Learning Orientation in Baccalaureate Nursing Students. *Nurse Educator*, 45(6), 347-351. <https://doi.org/10.1097/NNE.0000000000000803>
- Knowles, M. S. (1975). Self-directed learning: A guide for learners and teachers.
- Knowles, M. S. (1978). Andragogy: Adult Learning Theory in Perspective. *Community College Review*, 5(3), 9-20. <https://doi.org/10.1177/009155217800500302>
- Lee, S., Park, H.-J., & Yu, S. (2024). The mediating role of positive psychological capital in the relationship between metacognition and self-directed learning ability: A cross-sectional study. *Nurse Education Today*, 143, 106385. <https://doi.org/10.1016/j.nedt.2024.106385>
- Li, S., Jia, X., Zhao, Y., Ni, Y., Xu, L., & Li, Y. (2024). The mediating role of self-directed learning ability in the impact of educational environment, learning motivation, and emotional intelligence on metacognitive awareness in nursing students. *BMC Nursing*, 23(1), 789. <https://doi.org/10.1186/s12912-024-02457-z>
- Loeng, S. (2020). Self-Directed Learning: A Core Concept in Adult Education. *Education Research International*, 2020, 1-12. <https://doi.org/10.1155/2020/3816132>
- Merriam, S. B., & Baumgartner, L. M. (2020). *Learning in adulthood: A comprehensive guide*. John Wiley & Sons.
- Morse, J. M. (1995). Exploring the theoretical basis of nursing using advanced techniques of concept analysis: . *Advances in Nursing Science*, 17(3), 31-46. <https://doi.org/10.1097/00012272-199503000-00005>
- Morse, J. M., Hupcey, J. E., Mitcham, C., & Lenz, E. R. (1996). Concept Analysis in Nursing Research: A Critical Appraisal. *Scholarly Inquiry for Nursing Practice*, 10(3), 253-277. <https://doi.org/10.1891/0889-7182.10.3.253>
- Murad, M. H., Coto-Yglesias, F., Varkey, P., Prokop, L. J., & Murad, A. L. (2010). The effectiveness of self-directed learning in health professions education: a systematic review: Effectiveness of self-directed learning. *Medical Education*, 44(11), 1057-1068. <https://doi.org/10.1111/j.1365-2923.2010.03750.x>
- O'Shea, E. (2003). Self-directed learning in nurse education: a review of the literature. *Journal of Advanced Nursing*, 43(1), 62-70. <https://doi.org/10.1046/j.1365-2648.2003.02673.x>

- Obied, H. K., & Gad, R. A. A. (2017). Applying Self-directed Learning Strategy to Enhance Nursing Students' Critical Thinking Skill. *IOSR Journal of Nursing and Health Science*, 06(02), 67-77. <https://doi.org/10.9790/1959-0602056777>
- Ojekou, G. P., & Okanlawon, F. A. (2019). Nursing Students' Readiness for Self-Directed Learning and Its Effect on Learning Outcome in South-West Nigeria. *Open Journal of Nursing*, 09(06), 586-601. <https://doi.org/10.4236/ojn.2019.96048>
- Rui, L., Mohamad Nasri, N., & Mahmud, S. N. D. (2024). The Role of Self-directed Learning in Promoting Deep Learning Processes: A Systematic Literature Review. *F1000Research*, 13, 761. <https://doi.org/10.12688/f1000research.150612.1>
- Ryan, R. M., & Deci, E. L. (2023). Self-Determination Theory. In F. Maggino (Ed.), *Encyclopedia of Quality of Life and Well-Being Research* (pp. 6229-6235). Springer International Publishing.
- Shirazi, F., Sharif, F., Molazem, Z., & Alborzi, M. (2017). Dynamics of self-directed learning in M. Sc. nursing students: A qualitative research. *Journal of advances in medical education & professionalism*, 5(1), 33.
- Walker, L. O., & Avant, K. C. (2005). *Strategies for theory construction in nursing* (Vol. 4). Pearson/Prentice Hall Upper Saddle River, NJ.
- Wided, R., & Abdulaziz, A. (2024). Facilitating Sustainable Employment for People with Physical Disabilities: A Pathway to Inclusion: An ISM-MICMAC Approach. *Journal of Disability Research*, 3(6). <https://doi.org/10.57197/JDR-2024-0070>
- Wided, R., & Alfalih, A. A. (2023). Extremism immunity through artificial intelligence networks: Extremism awareness and social intelligence. *International Journal of Data and Network Science*, 7(1), 341-356. <https://doi.org/10.5267/j.ijdns.2022.9.013>
- Williamson, S. N. (2007). Development of a self-rating scale of self-directed learning. *Nurse researcher*, 14(2). <https://doi.org/10.7748/nr2007.01.14.2.66.c6022>
- Wong, F. M. F., Tang, A. C. Y., & Cheng, W. L. S. (2021). Factors associated with self-directed learning among undergraduate nursing students: A systematic review. *Nurse Education Today*, 104, 104998. <https://doi.org/10.1016/j.nedt.2021.104998>
- Yurdal, M. O., & Toraman, Ç. (2023). Self-Directed Learning, Academic Achievement and Motivation: A Meta-Analytical Study. *Alberta Journal of Educational Research*, 69(2), 233-253. <https://doi.org/10.55016/ojs/ajer.v69i2.75098>