

Original Article

Proactive Nursing: A Concept Analysis

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Purpose: The aim of this study was to identify a clear definition of proactive nursing and to elucidate the essence of proactive nursing required in the current healthcare context. **Methods:** A concept analysis using Walker and Avant's approach was conducted. **Results:** The defining attributes of proactive nursing included surveilling to surface problems, employing practices beyond the established protocols, tailoring a path toward the care goal, and arranging resources in advance. The antecedents were that nurses have their own theoretical and experiential knowledge, possess a professional identity, understand clients' status, and have accessible resources. The consequences arising from proactive nursing were ensuring client safety, achieving the care goals efficiently, and improving nurses' job satisfaction. Through this concept analysis, proactive nursing was defined as taking the initiative for practices during the care process that utilize creative methods and taking advantage of various resources to identify or solve implicit problems of clients. **Conclusion:** This concept analysis provided a clear meaning structure for proactive nursing, enabling a better understanding and communication of the concept within the nursing discipline. A clear definition of proactive nursing would lead nurses to practice in a more proactive way in the current healthcare system, resulting in improved quality of care and greater safety for clients.

Key Words: Nursing process; Nursing theory; Practice patterns, Nurses'

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INTRODUCTION

The paradigm of healthcare is undergoing significant transformation due to revolutionary advancements in disease treatment and growing concerns regarding healthy lifestyles [1]. This transformation raises critical questions about the adequacy of the existing healthcare system, which primarily adopts a curative and on-demand approach, in effectively addressing the increasing complexity of chronic diseases and unmet client needs [1,2]. In response to these contextual shifts, there is a pressing need to shift the healthcare paradigm from a reactive to a proactive orientation, necessitating innovative changes in the current healthcare services [1,3].

This contextual shift has led to an escalating demand for nurses to demonstrate proactivity [4]. Nurses, as frontline healthcare providers, play a pivotal role in delivering proactive care within the transformative healthcare system [5]. Nurses are expected to take action to achieve practical goals and solve problems [2], thus providing improved health care for clients, the humans who are the central focus of nursing phenomena [6,7].

Following on this perspective, previous studies have developed numerous nurse-led strategies in interdisciplinary proactive interventions, highlighting the crucial roles of nurses in conducting initial client assessments, consultations, and collaboratively establishing care plans with other healthcare professionals, which have shown positive outcomes in terms of reducing the severity of patient symptoms or complications, increasing patient participation, and decreasing hospital stays or readmission rates [8-10]. Furthermore, nurse-led interventions were reported to effect significant improvement in symptom management and client satisfaction [2,11].

However, at present, there is no existing definition of proactive nursing, and although previous studies have emphasized the importance and necessity of nurses' proactive behavior, their descriptions of the meaning of proactive nursing are often ambiguous or missing entirely [4-6]. This absence of a clear definition poses an obstacle to clear communication and research regarding proactive nursing, hindering the development of a widespread perception and true understanding of nursing practice [12]. Therefore, a concept analysis which can provide a new frame of view for nursing practice and research is needed to identify a clear meaning structure for proactive nursing [7,12,13]. Thus, the purpose of this study is to achieve two objectives: firstly, to establish a clear definition of proactive nursing through concept analysis, and secondly, to uncover the fundamental elements of proactive nursing

that are essential in the current healthcare context.

METHODS

A concept analysis can clarify the vague meaning of a concept and thus provide a standardized language for effective communication in the field of nursing [12]. In this study, the eight-step procedure of Walker and Avant [12]'s concept analysis approach was used to extract the essence of proactive nursing from the existing divergent explanations for obtaining a single clear definition. The eight steps are: (1) select a concept; (2) determine the aims or purpose of the analysis; (3) identify all uses of the concept discovered; (4) determine the defining attributes; (5) identify a model case; (6) identify borderline, related, and/or contrary cases; (7) identify the antecedents and consequences; and (8) define empirical referents.

A literature search was conducted on online databases, including PubMed, Web of Science, the Cumulative Index of Nursing and Allied Health Literature (CINAHL), and Google Scholar. The search terms "proactive" AND ("nurs*" OR "care") were employed to encompass the precise meaning of proactive and gather comprehensive data regarding nursing practice. Furthermore, there was no limitation imposed on the search period to ensure the inclusion of all relevant usage of the concept. To examine the general use of proactive nursing, we conducted additional manual searching, including internet websites. Documents published in English were included, and the following exclusion criteria were applied: (1) documents on irrelevant topics that did not discuss nurses' proactivity; (2) research articles that did not specifically focus on nurses or nursing practice.

The documents were meticulously read and analyzed to identify essential elements pertaining to proactive nursing. Furthermore, we compiled and analyzed relevant interconnected studies collectively. Finally, we included 72 documents in our analysis, including 64 journal articles such as research papers, editorials, letters, and interview papers, three books, two conference papers, and three online articles from a newspaper, a blog, and a magazine (Figure 1). The following related studies were together counted as a single study for the analysis: six studies by Bleijenberg et al. [11,14-18], two studies by Buszewicz et al. [2,19], two studies, one by Meek and one by Meek et al. [20,21], two studies by du Pon et al. [9,22] (Figure 1).

RESULTS

1. Uses of the Concept

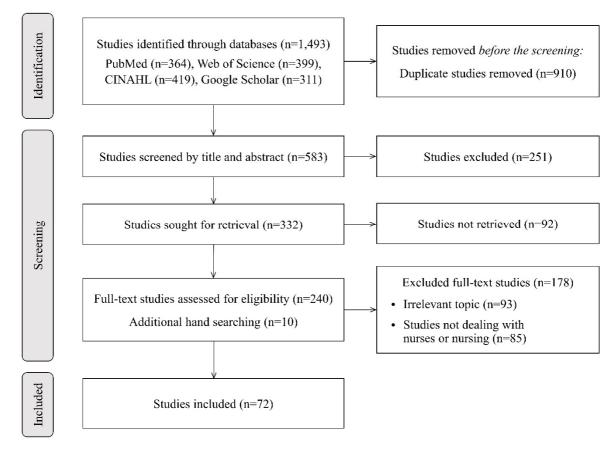


Figure 1. Process of searching for data to be used in the concept analysis.

First, a comprehensive examination of the meaning of "proactive" in the general and academic areas was done. Identifying all uses of the concept helps to acquire a deep understanding of its meaning [12].

Dictionaries define proactive as either "acting in advance" or "behaving actively." The Merriam-Webster [23] describes it as "acting in anticipation of future problems, needs, or change." Similarly, the Cambridge University Dictionary [24] defines it as "intending or intended to produce a good result or avoid a problem, rather than waiting until there is a problem." Both dictionaries' definitions focus on acting in advance of potential future events. On the other hand, the Oxford English Dictionary [25] highlights the behavioral dimension of proactive behavior, which involves "creating or controlling a situation rather than merely responding to it after it has occurred." Accordingly, being proactive entails assuming responsibility and effecting change.

The term "proactive" has been extensively studied in business management, where it refers to the ability of employees to take initiative to overcome obstacles and achieve organizational goals [26]. Based on business management research, efforts have been made to investigate the proactive behaviors of nurses. Studies have investigated the proactive behaviors of nurses, using proactive personality scales [27,28], and proactive work behavior scales [26] to explore the influence of nurses' competencies, work engagement, and proactive work behaviors [4,29]. However, these studies have primarily focused on describing nurses' work attitudes, while proactive nursing also has connotations directly related to nursing practice and clients who are expected to receive and participate in nursing care [4,5]. To summarize the comprehensive examination of definitions pertaining to the concept, it was revealed that the majority of the documents referred to proactive nursing without providing an accurate definition.

2. Attributes

The results of the concept analysis contain three parts: attributes, antecedents, and consequences (Figure 2). The attributes are characteristics that define the essence of the concept and that differentiate it from other concepts [12]. Through the critical evaluation of the scientific use of the concept, four attributes of proactive nursing were identified: surveilling to surface problems, employing practices

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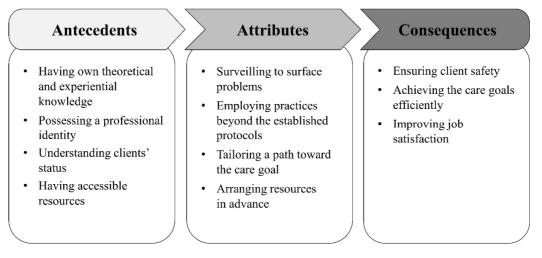


Figure 2. Concept analysis of proactive nursing.

beyond established protocols, tailoring a path toward the care goal, and arranging resources in advance.

Surveilling to surface problems means directly or indirectly observing clients to identify any risk of deterioration or unmet needs [2,5,30-32]. Such surveillance is a preemptive measure to bring hidden problems to the surface, for spotting emerging implicit problems, and for maintaining the ongoing care process rather than a reactive response to adverse events or client demands [30,32]. This proactive practice enables nurses to plan for and address impending problems in a timely manner [33].

Employing practices beyond established protocols involves active behaviors for solving unfolding issues in an innovative way [34]. Nurses' initiatives that go beyond their standard job description can make positive changes in healthcare [35]. Such proactivity contrasts with traditional reactive practice, in which nurses take a peripheral position and behave passively when dealing with adverse events [30].

Proactive nursing is a process of adjusting an individual client's path toward a healthcare goal [35,37]. It focuses on the individual client's goals at a macro level, optimizing care plans by placing the client at the center of the care process [31,37]. Nurses' proactivity is the initiative process of maintaining clients' care continuum by shifting the care pathway in response to clients' changing health status or to environmental circumstances that could affect them [5,21].

Additionally, proactive nursing entails the ability to prepare and arrange necessary resources in advance of an anticipated future [4,10,21,37]. Proactive nurses facilitate clients' access to various resources, such as healthcare experts, treatment instruments, and community services [8,18,30,32,38]. The proactive behaviors of making referrals and coordinating with resources is enhanced by collaborating with multidisciplinary healthcare professionals [3,33,36].

3. Model case

A model case is an example that includes all the attributes of a concept and helps to clearly understand its essence [12].

Nurse A is caring for Mr. W, a 62-year-old patient who underwent a decompressive craniectomy for a traumatic brain injury over a month ago. Despite stable vital signs, Mr. W has shown no improvement in his mental status and is mentally confused. Recently, the doctor advised Mr. W's daughter to find a nursing home for him as the acute stage was over. Nurse A aims to maintain the patient's optimal condition for moving to a nursing home without complications. During her rounds, Nurse A notices that Mr. W looks too still and does not respond to any stimuli. She immediately checks his mental status and deduces that his fever of 37.7°C (99.86°F) is the cause of his mental status change. She puts the patient in a head-up position, applies an oxygen saturation monitor, and performs tracheal suction to prevent pneumonia, a common complication of immobilization among patients who are not mentally alert. After applying ice packs to reduce the fever, she calls the doctor to inform him of the situation and checks Mr. W's temperature again. She then contacts the radiology department to check their schedule and informs them about the possibility of an emergency scan. In preparation for the anticipated scan, she ensures informed consent is obtained, identifies suitable IV sites, and prepares additional oxygen supply devices such as a ventilator.

In this model case, Nurse A's actions demonstrate the attributes of proactive nursing. Her vigilant surveillance allowed her to promptly surface the risk at hand. If she had only visited Mr. W during the minimum required times, she would have noticed the patient's fever too late. Additionally, she proactively took the initiative to address Mr. W's fever and prepared for the anticipated care process, instead of waiting for the doctor's orders. These actions could be considered employing proactive practices beyond routine protocols. Furthermore, while focusing on the goal of transferring Mr. W to a nursing home, she provided acute care to address his potential complications. Concentrating on the best practice in response to changing situations is an essential aspect of proactive nursing, which tailors the care path toward the ultimate goal. Moreover, Nurse A's preparation for a CT scan shows her proactive behavior in arranging resources in advance. This careful, preemptive arrangement ensured Mr. W's care continuum is effective and efficient.

4. Borderline case

A borderline case is an example that includes some partial meaning of the concept and helps to identify a clear boundary that distinguishes it from other concepts [12].

Nurse B, a diabetes specialist, is responsible for the care of Ms. X, a 55-year-old outpatient. Nurse B conducts regular phone call checkups, during which she discovers that Ms. X's blood sugar levels are increasing and that there are several gaps in her food diary. Ms. X complains about restrictions on her food intake and the difficulty of planning a healthy diet every day. Nurse B's primary goal is to control Ms. X's blood sugar levels and maintain them within the normal range. She tells the patient, "I know it is hard and annoying, but keep checking your blood sugar. It is of the utmost importance for your health. Let me remind you of your schedule. You are scheduled for the community diabetes program this Friday at 3 p.m. I will send you some handouts for education. Is there anything else I can do for you?"

In this borderline case, Nurse B exhibited some shortcomings in proactive nursing. Although she identified Ms. X's deteriorating state through regular telephone checkups, she only reviewed the report's data and did not attempt to identify implicit problems. To exhibit creative practice in proactive nursing, Nurse B could have paid more attention to Ms. X's struggle with food control by asking about her food preferences and recommending recipes, which can be counted as creative practices with a more tailored approach that focused on client's individual needs and current problems. Additionally, Nurse B could have been more proactive in referring Ms. X to other services beyond the scheduled diabetes program, such as a nutritionist or counselor, to address her concerns about food control and any underlying issues.

5. Related Case

A related case is an example of a similar concept that helps to clarify the core meaning of the main concept [12].

Nurse C is preparing to receive her new patient, Mr. Y, who is transferring from the ICU. He suffered a C6 spinal cord injury in a car accident and is paralyzed below the hips. Nurse C reviews his chart, noting his weak hand grip and his goal to adapt to a rehabilitation program and be discharged without complications. While conducting initial assessment, Mr. Y suddenly starts crying, saying his life is ruined and questioning why he has to live. Nurse C listens carefully and shows empathy. "I truly understand your discomfort. Your wife and daughter both believe in you and support you. I also believe in you!" She also arranges his possessions and a call bell where Mr. Y can easily reach them. She tells him, "I am sure you can expand the areas you can reach for your stuff. Exercise your range of motion as much as you can. If you need me, please don't hesitate to press this call bell. Is there anything else I can do for you?"

In this case, Nurse C's approach in caring for Mr. Y was patient-centered rather than proactive nursing. While proactive nursing focuses on preventing risks and arranging resources in advance, Nurse C's actions centered on Mr. Y's current condition, providing psychological and physical support, and organizing his surroundings within his range of motion Although her approach was not tailored to Mr. Y's care process, it exemplified the attributes of patient-centered care, including respect for his autonomy and providing holistic and individualized care [40], which are distinct from those of proactive nursing.

Contrary Case

A contrary case is an example that opposes all aspects of a concept and that helps to understand why and how the concept consists of its defining attributes [12].

Nurse D is providing care for Ms. Z who is undergoing several perioperative tests for surgery for a cerebral aneurism and is being strictly managed for hypertension. One day, Ms. Z's daughter reports to Nurse D that her mother's mental state has suddenly changed, prompting Nurse D to check on the patient. Nurse D finds that Ms. Z is drowsy and has difficulty opening her eyes, which is a significant change from her earlier alert state. Nurse D immediately calls the doctor and records the orders. The doctor soon arrives and asks for details about the mental change. However, Nurse D cannot understand what is going on and is puzzled by the situation. After the doctor requests that vital signs be checked, the systolic blood pressure is found to be high at 183mmHg. In response, the doctor asks a series of questions: "Did Ms. Z take the hypertensive medication properly? Was a pre-op CT scan done? When? Prepare for surgery!" Nurse D becomes panicked as additional questions arise in her mind: "What should I do first? What did the doctor say to me at the very beginning? I have so many things to do…"

In this contrary case, Nurse D demonstrated anything but proactive nursing. First, she only became aware of Ms. Z's mental deterioration after her daughter requested that she check on her. Furthermore, she appeared passive and uncertain of how to handle the situation, waiting for the doctor's orders without taking any initiative. During the emergency, she seemed helpless and had difficulty understanding the doctor's questions and orders. This is the complete opposite of proactive nursing.

7. Antecedents

The antecedents of proactive nursing, which are the prerequisites for the concept to occur [12], included that nurses have their own theoretical and experiential knowledge, possess a professional identity, understand clients' status, and have accessible resources. Nursing knowledge forms the basis of practical judgement and behavior, allowing nurses to make optimal decisions [35]. In addition to knowledge, nursing wisdom gained from practical experience allows nurses to solve impending problems proactively [6,38,40]. Nurses' professional identity also drives proactive practice through intrinsic motivation, commitment, and responsibility toward clients [4]. Proactive nursing requires nurses to identify their professional roles and to be aware of the value and impact of their behavior [37]. Understanding clients' status is another necessary condition of proactive nursing. To identify underlying problems and then prevent them, nurses should create clear care plans and goals based on sufficient information about clients [35]. Through such actions, proactive nurses play a central role in understanding and assessing clients and in being change agents for effective care [41]. Lastly, proactive nursing requires accessible resources for preparing and arranging in advance of an anticipated care process.

Access to organizational and administrative supports, such as human and material resources including community services, are necessary for nurses to provide proactive care and improve care continuity by sustaining and improving nurse referrals [29,35,40].

Consequences

The consequences of proactive nursing included ensuring client safety, achieving the care goals efficiently, and improving nurses' job satisfaction. Proactive nursing ensures client safety by setting care priorities, preventing deterioration of clients' condition, and stabilizing their health status [4,10]. Addressing complex hidden problems through proactive interventions and concentrating on the individual needs can prevent suffering and uncertainty in care, such as unplanned invasive procedures and prolonged hospital stays [30], resulting in providing clients with a positive care experience and a higher level of safety [31, 35]. Proactive care also aims to achieve care goals efficiently by following a prepared path that avoids or prevents obstacles and reduces the time and cost of the care process [5,11,29,32]. Collaboration among multiple disciplines facilitates the selection of the best practices, ensures consistency of care, and targets the same goals with other staff, which allows for innovative steps to be taken in responding quickly to expected harm while avoiding potential obstacles and achieving the care goal more efficiently [8,10,35]. Proactive nursing also positively impacts nurses' competency, work engagement, and performance, leading to better job satisfaction [6,27,35]. Additionally, managing underlying needs or problems with a focus on the client gives nurses greater control over workloads, more confidence, and a clear role identity by reducing unnecessary procedures and stress [40].

9. Empirical Referents

Empirical referents are categories of actual practices in the real world that demonstrate the existence of a concept [12]. Instruments such as the proactive personality scale [27,28] or the proactive work behavior scales [26] have been utilized to assess nurses' proactivity within the nursing profession. However, it is important to acknowledge that these instruments originate from a different discipline, leading to inherent limitations in accurately capturing the intricacies of proactive nursing and aligning interpretations with its true essence. Instead, any nursing practice in which a nurse identifies a patient's concerns, anticipates the care process, prepares for upcoming events, and makes the best decisions in the current circumstances can be an empirical referent of proactive nursing. Proactive rounding is a representative empirical referent of proactive nursing in clinical settings.

Nurse rounding is a basic component of nursing practice that entails regular patient assessment [42]. Reflecting the contextual demands of patient safety, emphasis on proactive rounding has been increasing. Proactive nurse rounding is regular rounding that places a greater focus on intentionally assessing patient needs and addressing them, greatly influencing patient safety [31,33]. The authentic manifestation of proactive nursing occurs when initiative practice is implemented following proactive rounding.

DISCUSSION

This concept analysis identified the essential components of proactive nursing, allowing nurses to perceive what constitutes proactive care and thus enabling them to make decisions in a more proactive way. Based on the concept analysis and defining attributes, the suggested operational definition of proactive nursing is as follows: proactive nursing is taking initiative practices during the care process that utilize creative methods and take advantage of various resources to identify or solve implicit problems of clients.

Within the context of a global crisis like COVID-19, there has been a notable recognition of the critical role of nurses in assuming leadership responsibilities to ensure the protection of clients' health and safety [43,44]. The World Health Organization has advocated for the cultivation of effective leadership among nurses, urging them to invest in their professional nursing practice and education, as well as actively contribute to health policy and healthcare systems [44]. Within this global healthcare context, this study's concept analysis holds significant implications for guiding the future focus of nurses in terms of nursing practice, education, and theoretical development.

While general and scientific usage has characterized the meaning of "proactive" as active behaviors performed before something happens [23-29], proactive nursing is a client-focused concept that centers on nurses' initiative practices based on their theoretical and practical knowledge [30-33,37]. This concept is closely intertwined with person-centered care, which directs attention to individual values, beliefs, and preferences, and encompasses the provision of care with empathy, respect, and dignity by holistically considering the client as a whole person [39,45]. The person-centered approach, with its client-focused perspective, assumes a pivotal role for nurses in strategic decision-making [43]. In contrast to passive and reactive behavioral patterns, proactive nursing entails nurses actively seeking opportunities to promote the well-being of their clients, demonstrating a proactive approach rather than relying on external direction [46].

The findings revealed that proactive nursing encompasses the role clarification of nurses and their active engagement in interdisciplinary collaboration, particularly given its attribute of effectively utilizing human resources. Nurses assume a central role as the primary professionals within interdisciplinary collaboration, acting as vital conduits for information exchange between clients and multidisciplinary healthcare providers [47]. By proactively engaging in collaborative efforts, nurses ensure the continuity of care and facilitate the implementation of best practices [10,35]. Thus, to strengthen the team network and optimize the advantageous outcomes of interdisciplinary collaboration, leading to the facilitation of integrated practice [47], nurses are required to adopt a more proactive approach in the provision of care.

The organizational level of education should promote and improve proactive nursing as nurses have already perceived the importance and necessity of staff training to develop proactivity [27,35]. Given that the antecedents of proactive nursing, such as knowledge and professional identity, may differ among nursing students and nurses at different stages of their careers, this study proposes the implementation of education tailored to their respective levels. It is crucial to provide effective education that highlights the specific attributes of proactive nursing, taking into account the competencies of both nursing students and registered nurses.

Future research is suggested to continue efforts in developing instruments or theories related to proactive nursing, while also uncovering multiple connections with other concepts. Investigating these relationships can provide a frame of view for grasping complex nursing phenomena toward nursing theory construction within the present transformative healthcare paradigm [7,12,13]. Further exploration of the concept could refine the definition and establish clearer boundaries, which would facilitate and improve proactive nursing practice.

This study has some limitations, primarily associated with the potential loss of documents during the search process. However, to mitigate these limitations, we made extensive efforts to comprehensively collect all available data related to proactive nursing by utilizing multiple online databases and conducting thorough manual searches. Another limitation pertains to the restriction of including only studies written in the English language. However, this decision was made to ensure clarity and avoid potential ambiguities that could arise from translations into other languages, considering the international usage of English as a common scientific language.

CONCLUSION

This study highlights that the concept of proactive nursing encompasses nurses' initiative and creative practices, utilizing diverse resources to identify and address the implicit health problems of clients. This concept analysis enhances nurses' understanding and communication of proactive nursing practices, enabling them to adopt a more proactive approach and expand its potential within the healthcare system. The clarified meaning of proactive nursing can promote the development of instruments to measure it and education and training programs to enhance proactive nursing practice, highlighting the need for further research to advance proactive nursing theory and practice.

CONFLICTS OF INTEREST

The authors declared no conflict of interest.

AUTHORSHIP

Conceptualization and Methodology - Kim D and Shin H; Investigation, formal analysis, and Writing-Original draft preparation - Kim D; Supervision and Validation - Shin H and Chang SO; Funding acquisition - Chang SO.

DATA AVAILABILITY

Please contact the corresponding author for data availability.

REFERENCES

- World Health Organization, Primary health care: closing the gap between public health and primary care through integration. Geneva: WHO; 2018. p. 1-20.
- Buszewicz M, Griffin M, McMahon EM, Walters K, King M. Practice nurse-led proactive care for chronic depression in primary care: a randomised controlled trial. The British Journal of Psychiatry. 2016;208(4):374-380.

https://doi.org/10.1192/bjp.bp.114.153312

- 3. Oliverio T, Di Lenarda A, Benedetti G. From reacting chronic care to proactive and predictive chronic care: the integrated territorial management of cardiovascular diseases in the reality of the district 2 of the asuits one year after. European Heart Journal Supplements. 2019;21(Supplement_E):E159-E160. https://doi.org/10.1093/eurheartj/suz154
- 4. Galletta M, Vandenberghe C, Portoghese I, Allegrini E, Saiani

L, Battistelli A. A cross-lagged analysis of the relationships among workgroup commitment, motivation and proactive work behaviour in nurses. Journal of Nursing Management. 2019;27(6):1148-1158. https://doi.org/10.1111/jonm.12786

- Glauberman G, Bray M, Loos JR, Qureshi K. Spotlight on nursing: population health: proactive solutions for healthy outcomes. Hawai'i Journal of Health & Social Welfare. 2020;79(2): 60-62.
- Molin TD, de Oliveira JLC, Tonini NS, de Oliveira RM, de Anchieta DW, de Silva GKT, et al. Comportamento proativo de enfermeiros hospitalares: comparaCAo entre cargos. Cogitare Enfermagem. 2019;24:e58174.

https://doi.org/10.5380/ce.v24i0.58174

- Kim HS. The nature of theoretical thinking in nursing. 3rd ed. New York, US: The Springer Publishing Company; 2010. p. 1-352.
- Harari D, Hopper A, Dhesi J, Babic-Illman G, Lockwood L, Martin F. Proactive care of older people undergoing surgery ('POPS'): designing, embedding, evaluating and funding a comprehensive geriatric assessment service for older elective surgical patients. Age and Ageing. 2007;36(2):190-196. https://doi.org/10.1093/ageing/afl163
- du Pon E, van Dooren A, Kleefstra N, van Dulmen S. Effects of a proactive interdisciplinary self-management program on patient self-efficacy and participation during practice nurse consultations: a randomized controlled trial in type 2 diabetes. Journal of Clinical Medicine Research. 2020;12(2):79-89. https://doi.org/10.14740/jocmr3965
- Berntsen GKR, Dalbakk M, Hurley JS, Bergmo T, Solbakken B, Spansvoll L, et al. Person-centred, integrated and pro-active care for multi-morbid elderly with advanced care needs: a propensity score-matched controlled trial. BMC Health Services Research. 2019;19(682).

https://doi.org/10.1186/s12913-019-4397-2

 Bleijenberg N, Drubbel I, Schuurmans MJ, Dam HT, Zuithoff NP, Numans ME, et al. Effectiveness of a proactive primary care program on preserving daily functioning of older people: a cluster randomized controlled trial. Journal of the American Geriatrics Society. 2016;64(9):1779-1788.

https://doi.org/10.1111/jgs.14325

- Walker LO, Avant KC. Strategies for theory construction in nursing. 6th ed. Boston: Pearson; 2019. p. 1-272.
- Rodgers BL, Knafl KA. Concept development in nursing: foundations, techniques, and aplications. 2nd ed. Philadelphia: Saunders; 2000. p. 1-458.
- 14. Bleijenberg N, Boeije HR, Onderwater AT, Schuurmans MJ. Frail older adults' experiences with a proactive, nurse-led primary care program: a qualitative study. Journal of Gerontological Nursing. 2015;41(9):20-29.

https://doi.org/10.3928/00989134-20150814-03

15. Bleijenberg N, Drubbel I, Neslo RE, Schuurmans MJ, Ten Dam VH, Numans ME, et al. Cost-effectiveness of a proactive primary care program for frail older people: a cluster-randomized controlled trial. Journal of the American Medical Directors Association. 2017;18(12):1029-1036.

https://doi.org/10.1016/j.jamda.2017.06.023

- 16. Bleijenberg N, Ten Dam VH, Drubbel I, Numans ME, de Wit NJ, Schuurmans MJ. Development of a proactive care program (U-CARE) to preserve physical functioning of frail older people in primary care. Journal of Nursing Scholarship. 2013;45 (3):230-237. https://doi.org/10.1111/jnu.12023
- 17. Bleijenberg N, Ten Dam VH, Drubbel I, Numans ME, de Wit NJ, Schuurmans MJ. Treatment fidelity of an evidence-based nurse-led intervention in a proactive primary care program for older people. Worldviews on Evidence-Based Nursing. 2016;13(1):75-84. https://doi.org/10.1111/wvn.12151
- 18. Bleijenberg N, Ten Dam VH, Steunenberg B, Drubbel I, Numans ME, De Wit NJ, et al. Exploring the expectations, needs and experiences of general practitioners and nurses towards a proactive and structured care programme for frail older patients: a mixed-methods study. Journal of Advanced Nursing. 2013;69(10):2262-2273. https://doi.org/10.1111/jan.12110
- Buszewicz M, Griffin M, Beecham J, Bonin E-M, Hutson M. ProCEED: report of a study of proactive care by practice nurses for people with depression and anxiety. Project Report. United Kingdom: University of Kent; 2012 December. Report No.: KAR id:32455.
- 20. Meek JA. Increasing return on investment potential in care management: predictive modeling and proactive care management: part II. Lippincott's Case Management: Managing the Process of Patient Care. 2003;8(5):198-202. https://doi.org/10.1097/00129234-200309000-00004
- Meek JA, Citrin RS. Integrating services for optimal proactive care. Lippincott's Case Management: Managing the Process of Patient Care. 2004;9(5):232-238.

https://doi.org/10.1097/00129234-200409000-00006

- 22. du Pon E, Kleefstra N, Cleveringa F, van Dooren A, Heerdink ER, van Dulmen S. Effects of the proactive interdisciplinary self-management (PRISMA) program on online care platform usage in patients with type 2 diabetes in primary care: a randomized controlled trial. Journal of Diabetes. 2020:5013142. https://doi.org/10.1155/2020/5013142
- 23. Merriam-Webster. Proactive [Internet]. Massachusetts: Merriam-Webster; 2022 [cited 2022 Jun 15]. Available from: https://www.merriam-webster.com/dictionary/proactive
- 24. Cambridge University Press. Proactive [Internet]. Cambridge: United Kingdom; 2023 [cited 2023 April 14]. Available from: https://dictionary.cambridge.org/ko/%EC%82%AC%EC% A0%84/%EC%98%81%EC%96%B4/proactive
- 25. Oxford University Press. Proactive, adj [Internet]. Cambridge:

United Kingdom; 2023 [cited 2023 April 14]. Available from: https://www-oed-com-ssl.ocam.korea.ac.kr/view/Entry/15 1671?redirectedFrom=proactive

- 26. Parker SK, Collins CG. Taking stock: integrating and differentiating multiple proactive behaviors. Journal of Management. 2008;36(3):633-662. https://doi.org/10.1177/0149206308321554
- 27. Hu X, Zhao R, Gao J, Li J, Yan P, Yan X, et al. Relationship between proactive personality and job performance of chinese nurses: the mediating role of competency and work engagement. Frontiers in Psychology. 2021;12:533293. https://doi.org/10.3389/fpsyg.2021.533293
- Batesman TS, Crant JM. The proactive component of organizational behavior: a measure and correlates. Journal of Organizational Behavior. 1993;14(2):103-118. https://doi.org/10.1002/job.4030140202
- 29. Warshawsky NE, Havens DS, Knafl G. The influence of interpersonal relationships on nurse managers' work engagement and proactive work behavior. The Journal of Nursing Administration. 2012;42(9):418-425.

https://doi.org/10.1097/NNA.0b013e3182668129

- 30. Blackburn G, Rasmussen B, Wynter K, Holton S. Proactive rounding: perspectives and experiences of nurses and midwives working in a large metropolitan hospital. Australian Critical Care. 2022;35(6):684-687. https://doi.org/10.1016/j.aucc.2021.09.006
- 31. Aboumatar HJ, Chang BH, Al Danaf J, Shaear M, Namuyinga R, Elumalai S, et al. Promising practices for achieving patient-centered hospital care: a national study of high-performing US hospitals. Medical care. 2015;53(9):758-767. https://doi.org/10.1097/MLR.0000000000396
- 32. Markle-Reid M, Weir R, Browne G, Roberts J, Gafni A, Henderson S. Health promotion for frail older home care clients. Journal of Advanced Nursing. 2006;54(3):381-395. https://doi.org/10.1111/j.1365-2648.2006.03817.x
- 33. Al Danaf J, Chang BH, Shaear M, Johnson KM, Miller S, Nester L, et al. Surfacing and addressing hospitalized patients' needs: proactive nurse rounding as a tool. Journal of Nursing Management. 2018;26(5):540-547.

https://doi.org/10.1111/jonm.12580

34. Park M, Park EJ. Questionnaire development of a good nurse and better nursing from Korean nurses' perspective. The Journal of Nursing Research. 2020;28(6):e120. https://doi.org/10.1097/JNR.0000000000393

 Rehnstrom K, Dahlborg-Lyckhage E. Proactive interventions: an observational study at a Swedish emergency department. SAGE Open. 2016;6(3).

https://doi.org/10.1177/2158244016658083

36. Tenison E, Smink A, Redwood S, Darweesh S, Cottle H, van Halteren A, et al. Proactive and integrated management and empowerment in Parkinson's disease: designing a new model of care. Parkinson's Disease. 2020;2020:8673087. https://doi.org/10.1155/2020/8673087

 Snowball J. Asking nurses about advocating for patients: 'reactive' and 'proactive' accounts. Journal of Advanced Nursing. 1996;24(1):67-75.

https://doi.org/10.1046/j.1365-2648.1996.01719.x

- 38. Bennett M, Walters K, Drennan V, Buszewicz M. Structured pro-active care for chronic depression by practice nurses in primary care: a qualitative evaluation. PLoS One. 2013;8(9): e75810. https://doi.org/10.1371/journal.pone.0075810
- Lusk JM, Fater K. A concept analysis of patient-centered care. Nursing Forum. 2013;48(2):89-98. https://doi.org/10.1111/nuf.12019
- 40. Frogeli E, Rudman A, Ljotsson B, Gustavsson P. Preventing stress-related ill health among newly registered nurses by supporting engagement in proactive behaviors: development and feasibility testing of a behavior change intervention. Pilot and Feasibility Studies. 2018;4:28.

https://doi.org/10.1186/s40814-017-0219-7

 Maxwell CA, Mion LC. Geriatric trauma: an opportunity for proactive palliative care. Geriatric Nursing. 2015;36(6):475-476. https://doi.org/10.1016/j.gerinurse.2015.10.004

- Brosey LA, March KS. Effectiveness of structured hourly nurse rounding on patient satisfaction and clinical outcomes. Journal of Nursing Care Quality. 2015;30(2):153-159. https://doi.org/10.1097/NCQ.00000000000086
- Rosser E, Westcott L, Ali PA, Bosanquet J, Castro-Sanchez E, Dewing J, et al. The need for visible nursing leadership during COVID-19. Journal of Nursing Scholarship. 2020;52(5):459-461. https://doi.org/10.1111/jnu.12587
- 44. World Health Organization. State of the world's nursing 2020: investing in education, jobs and leadership. Geneva: World Health Organization; 2020. p. 1-92.
- 45. American Geriatrics Society Expert Panel on Person-Centered Care. Person-centered care: a definition and essential elements. Journal of the American Geriatrics Society. 2016;64(1):15-18. https://doi.org/10.1111/jgs.13866
- Crant JM. Proactive behavior in organizations. Journal of Management. 2000;26(3):435-462. https://doi.org/10.1016/S0149-2063(00)00044-1
- 47. Schot E, Tummers L, Noordegraaf M. Working on working together. a systematic review on how healthcare professionals contribute to interprofessional collaboration. Journal of Interprofessonal Care. 2020;34(3):332-342. https://doi.org/10.1080/13561820.2019.1636007

468 https://doi.org/10.7739/jkafn.2023.30.4.459