

## Review

### Creativity in Nursing Care: A Concept Analysis

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#### Abstract

The aim of this study was to present the concept analysis of creativity in nursing care using the Walker and Avant (2019) approach. In this regard, the keywords "creativity" and "nursing care" were searched through PubMed, Ovid, Scopus, EMBASE, Google Scholar, SID, and Web of Science between the years 2000 and 2018 along with hand searching of reference lists extracted from more than 342 articles. Finally, 37 articles that had inclusion criteria were examined based on the eight stages mentioned in Walker and Avant's concept analysis approach. Results revealed that creativity in nursing care includes fluidity of mind and the creation and acceptance of new ideas for patient care in such a way that the new methods are simple, useful, efficient, affordable, and safe. This requires a creative vision, creative sensitivity, and creative thinking. If there is a supportive environment, motivation, sensitivity, and divergent thinking skills, individuals can demonstrate their creativity. This may result in successful decision-making in the clinical setting and therefore contribute to increasing the organization's effectiveness and the quality of care. All nurses can act as agents encouraging change by the use of creativity to improve the quality of care. It is an educational guide for future nurses to implement creativity in practice. Also, this finding can be used for future research and the development of specific tools. Finally, it is suggested to consider creativity in the other aspects of clinical practice as well.

**Keywords:** Creativity, innovation, nursing care

#### Introduction

With the development of science and technology, society needs people who can take steps in the direction of change and development (Mosakhani et al., 2010). One of the important capabilities of organizations for their survival, success, and excellence in the globalization age is creativity (Rangaraju & Kennedy, 2012). Health care organizations must provide creative responses in order to deal with all the emerging needs and different circumstances (Denhardt et al., 2018). The creativity of any social system is based on the creativity of the people of that system. In such a situation, the presence of knowledgeable and creative employees in the organization is very helpful (Tayebi Shirmard & Mirzaei, 2017). Also, nurses

often face unpredictable situations, for which they have not been trained before. Their education no longer meets the needs of the 21<sup>st</sup> century. To deal with these new and complex situations, nurses need a higher level of competence and attitude and must be able to respond in a timely, effective, creative, and flexible manner (Institute of Medicine, 2010).

First time in 1973, Myra Levine used the metaphor "Linking the art and nursing science" to describe creativity and introduced it as a daily event that was essential for nursing interactions (Ma et al., 2018). Creativity is an important skill to solve the problem and create a new idea. Nurses should use their creativity to conceive of their potential problems and its subsequent outcomes and prepare themselves

for the future. They should also use it for decision-making and problem-solving (Bunkers, 2011).

Nursing creativity can be executed in a variety of areas, including education, research, management, and clinical practice. Obviously, these areas interact with each other. However, creativity in nursing care is a new concept which perceived less than others, and for this reason, the art of nursing care is not publicly visible and remains hidden in the profession.

As new technology and genetic knowledge have changed medical and nursing care (Toole, 2012), there is a need for simple, cost-effective, and low-risk alternatives that embrace nursing creativity. The health system requires new ideas and creative problem-solving methods in the face of future changes (Cresswell et al., 2016). The authors of Individualized care emphasize the attitude toward patients as unique individuals and the obligation to care for them according to their conditions. Efforts to provide patient-centered care, such as evidence-based medicine, emphasize changes in infrastructures. Therefore, nurses should try to work with other healthcare disciplines to create a creative care model that meets the new needs of patients. Obviously, to improve the quality of patient care in a modern healthcare system, it is crucial to use creativity for harmonizing arts and nursing science (Hewitt-Taylor, 2015).

Although previous studies have shown the importance of creative thinking and creativity in nursing, due to the complexity of the psychological and social forces involved in the formation of creativity, individuals face challenges in understanding and managing the creativity (Sadeghi Mal Amiri, 2015; Ma et al., 2018; Zuber & Moody, 2018).

In the 21st century, there is a growing tendency in health systems toward the concept of creativity and innovation to overcome the challenges of the health system, improve quality of care, increase fair access to care services, and reduce subsequent costs. This is not possible without understanding the concept of creativity. Many studies have been conducted in this field, especially in the humanities (Fox, 2013; Khessina et al., 2018; Nembhard & Lee, 2017; Vermeir et al., 2018; Zuber & Moody, 2018). However, there has been no study emphasizing the dimensions of creativity in nursing care. Therefore, it seems necessary to recognize its features through the process

of conceptual analysis and to explain its role in the clinical nursing setting.

Concept analysis is a strategy for examining the semantic structure of a concept. For a concept to be solid in theory and practice, it must be clearly defined and analyzed. Concept analysis helps us to distinguish that concept from others that may be similar but not the same as that concept. Concept analysis can be useful in refining ambiguous concepts and clarifying overused concepts for arriving at precise definitions. Additionally, it can be useful in tool development and language development in nursing. There are several methods for conducting concept analysis; in all of the methods, the analysis of a concept includes the analysis of the descriptive word and its usage. Therefore, a concept analysis of creativity in nursing care can help us to distinguish the concept from other similar borderline concepts, describe it in the nursing care domain, and provide a foundation for further research (Walker & Avant, 2019). Therefore, this study aimed to clarify the concept of creativity in nursing care based on Walker and Avant's concept analysis approach.

### Research Questions

1. What is the concept of creativity in patient care?
2. What is the manifestation of creativity in patient care?
3. What kind of attitude and behavior in the field of patient care reflects the creativity of nursing care?

### Methods

Walker and Avant's (2019) approach was used as the framework for this concept analysis. Walker and Avant's approach is a simplified approach to Wilson's 11-step systematic process that simplifies the concept by creating a clearer understanding of it. This approach provides a pragmatic framework that emphasizes the conceptual aspect of the concepts (Chinn & Kramer, 2004). Walker and Avant's (2019) concept analysis process includes eight stages that are described in Table 1.

The concept was searched using keywords "Creativity" and "Nursing care" in credible databases such as PubMed, Ovid, Scopus, EMBASE, Google Scholar, SID, and Web of Science during 2000–2018, with hand searches of reference lists, and the search process was completed using the dictionary.

**Table 1.**  
*Walker and Avant's Concept Analysis Stages*

| Stage | Action   |
|-------|--|
| 1     | Select a concept   |
| 2     | Determine the aims of the analysis                           |
| 3     | Determine the definition attitudes of concept                |
| 4     | Identify all uses of concept that can discover               |
| 5     | Identify a model case  |
| 6     | Identify borderline cases, related cases, contrary cases,... |
| 7     | Identify antecedents, consequences                           |
| 8     | Define empirical referents                                   |

More than 342 articles were extracted. After removing duplicate items (36 items), examining the relevancy of titles (removing 231 items), reviewing the relevancy of the subject, and the validity of the source, the remaining 37 articles were examined. Exclusion criteria included irrelevant, duplicated articles and lack of access to the article in English. A total of 37 extracted articles were independently reviewed by two researchers S K and L M D who have a brilliant background in teaching nursing theories and concept analysis for nursing students and have written numerous articles in this field. Usually, in analyzing the concept, the quality of studies is not examined using common tools. However, an attempt was made to select the closest and the most authoritative studies in terms of methodological quality from reputable journals and peers review. Finally, the required data were extracted from the initial studies.

## Results

### Select a Concept

The increase in emerging needs, the emergence of individualized care, and departure of the care from conventional academic stereotypes calls for evidence-based thinking and effective clinical reasoning. All this requires a fluid and creative mind while providing individualized care, which this concept has not been clarified yet. Price (2006) believes that if creativity is described in a complex and inapplicable manner or is not well-defined, it is unlikely to go beyond the conceptual stage.

In this study, after reviewing the literature and based on the researcher's interest and the increasing role of creativity in clinical nursing, the concept of creativity

in nursing care was selected. It should be noted that researchers have paid little attention to this concept in the field of patient care. Therefore, this analysis will help us to achieve a better understanding of this concept in this field.

### Purposes of Analysis

The aim of this study was to present the concept analysis of creativity in nursing care and identify attributes, antecedents, and consequences.

### Attributes of the Concept

Defining attributes of the concept include descriptive attributes that are used frequently while discussing the concept and play a major role in differentiating between concepts (Walker & Avant, 2019). Creativity can be defined in a variety of ways, including cognitive processes, personality traits, environmental variables, and interactions of these components. Nevertheless, there is a need to combine the concept in a clinical setting.

Creativity comes from the Latin word "creare" which means to create. Oxford dictionary defines creativity as "to use imagination or original ideas to create something" (Medical Dictionary, 2018). Creativity has an extensive definition. Lau (2011) points to three principles in the concept of creativity: (1) the new reconstruction of old ideas; (2) the selection of useful ideas; and (3) the examination of the relationship between ideas. New forms beyond the common rules can be created by creativity. Although, these three principles are not mostly related to nursing education, human simulations and other creative learning methods can join theory to practice so that nursing students can use different forms of creativity in care for patients and successful decision-making in the clinical setting (Marquis & Huston, 2009).

Based on the main purpose, in this study defined nursing care and then analyzed and developed the concept of creativity in nursing care. The medical dictionary considers nursing care as a general term, which refers to procedures and measures that are solely or primarily intended to reduce the pain, symptoms, and discomfort of the patient (Medical Dictionary, 2018). Therefore, any nursing practice that is carried out based on the above aim is called nursing care. Based on the literature review, definitions, and general conclusions, it can be concluded that the concept of creativity in clinical nursing can include three attributes:

1. The reconstruction of old ideas or choice of a new way of providing patient care that has more advantages than the usual method.
2. The selection of simple, useful, affordable, efficient, and safe ideas.
3. The examination of the relationship between ideas and successful decision-making in a clinical setting.

In the other words, creative nursing care is fulfilling new ideas in the face of intricate clinical interactions and practices by nurses utilizing their fluid minds and old ideas and facilities. That is, such creative nursing care is not only new and simple but also affordable, efficient, useful, and safe. In other words, creativity in nursing care means using new thinking to produce a new idea and apply it to nursing care that must necessarily be more useful, efficient, and safer compared to older methods. This can be defined as a new way of providing patient care and may result in successful decision-making in the clinical setting.

### Uses of the Concept

Although this concept is not well-clarified, creativity in nursing care has led to the creation of devices that facilitate the work, save time, increase the quality of care, and reduce the nursing workload. It also leads to self-belief, growth and prosperity, social status, and self-confidence in nursing staff. Other benefits of creativity include increased satisfaction, self-efficacy, and pleasure of discovery, lower workload and achieving reputation, social respect, and changing attitudes of authorities, universities, and society toward nursing society (Shahsavari et al., 2015 a).

### Model Case

A model case is a specific example of the intended concept that should have all the features of that concept (Walker & Avant, 2019). Such a model case is discussed below:

“Ms. X, due to her interest in nursing and assisting humankind, chose to be a nurse 20 years ago and graduated from one of the best universities. She has been enthusiastically working in the orthopedic ward for years. Besides other tasks defined for her, she has to change 10–12 wound dressings quickly and with the utmost precision every day. She sees that the risk of surgical site infection and the re-admission of patients after surgery are elevated, which imposes a lot of costs on the patients, system, and nurses. She also observes that her co-workers change the

dressing less accurately due to lack of time and high workload. Due to the lack of items needed for changing dressing in the department, shortage of nursing staffs, and a large number of patients, as well as the impossibility of transferring all patients to the only available dressing room due to immobility of some of the orthopedic patients, nurses should use one dressing trolley for all patients, which itself increases the risk of transmission of infection. She always thinks about how to change the dressing of patients quickly and accurately without using hands according to sterile points in a way that the waste material is automatically removed after changing the dressing, and there is no risk of infection for the environment, patient, and nurse. She discusses the issue with the head nurse. The head nurse welcomes her idea and informs the authorities of the hospital. Finally, engineer Y is introduced to them to help change the old trolley's use to design an automatic wound washing machine with the possibility of waste storage in a closed chamber and automatic waste disposal with the help of Ms. X's idea.”

Achieving a profound understanding of the problem investigated by Ms. X and her interest to resolve such problem in addition to the supportive environment and the existence of intrinsic (interest in nursing, diligence, and purposefulness) and external motivations (work pressure and lack of time) are the motivating factors for proposing the idea of making this device by the aforementioned nurse. The aforementioned example is a model of creativity in nursing care in which woman X showed sensitivity to the problem, and with her fluid mind and putting aside old ideas proposed the idea of making an automatic wound washing machine. She then designed and built the machine with the help of an expert.

### Borderline and Contrary Cases

Borderline cases include some of the attributes embracing the concept that are often mistakenly used instead of the concept (Walker & Avant, 2019). Innovation is one of the borderline cases of creativity. Innovation and creativity are two independent but interrelated concepts that sometimes lead to confusion for readers. Creativity is the process of thought, and innovation is a product obtained through the implementation of that creative thinking (Sarooghi et al., 2015). Innovation is, in fact, the use of creativity or problem-solving skills that results in a product, strategy, or service that meets needs in a new and different way (Kaya et al., 2016). In other

words, applied creativity should always lead to innovation. Here's an example of an innovation case:

"Ms. Z is a nurse in the department of surgery. She observes that many patients need self-care counseling after discharge. Although discharge training is practiced, many still need access to a physician and nurse. Therefore, surgical nurses are required to answer the patient's questions besides their plenty of tasks. She thinks that it is better to establish a telenursing center equipped with a referral system at the hospital's nursing office in order to save time and money and help the patient have better access to experts. The idea of implementing such a method is given to the hospital manager. Eventually, after examining different aspects, a center was established at the hospital." This is a nursing innovation aimed at improving quality, saving time, and providing safe services. Though this idea has already existed, in this example, the nurse has used her creative thinking to establish a telenursing center presenting a new method that addresses the needs in a different way. Such thinking provides a coherent approach to define challenges. This helps to identify problems and to proceed according to previous ideas or according to existing guidelines.

If in the previous example, Ms. X only did the dressing process step-by-step according to the existing guidelines, her care lacked creativity. Therefore, routine care can introduce as a contrary case in creative nursing care, patient's conditions, facilities, environment, and existing problems, as well as characteristics of creativity in nursing care must be considered.

### **Antecedents and Consequences**

**Antecedents:** Antecedents are situations, events, or phenomena that precede the occurrence of a phenomenon and the main concept occurs due to their presence. It helps to refine the concept (Walker & Avant, 2019). There are six factors that affect people's creativity: (1) having knowledge and experience; (2) being able to mentally present creative ideas and create new relationships in issues; (3) adopting a creative thinking style and confronting a routine life; (4) motivation; (5) resilient personality, and (6) supportive environment (Jokari & Jorfi, 2012). Participants in Chan's study (2013) had different opinions about the experience factor. Some believed that laws and experience prevented the emergence of new thinking, while some emphasized the inspirational nature of the experience to create creative

ideas. In the case of lack of time and work-related stress, the results are contradictory. Occasionally, work-related stress prevents the emergence of creative ideas, and sometimes the nurses move toward innovative ideas to overcome them. In other words, shortages of time lead to creativity and severe time shortage prevents it. However, there would be different perceptions depending on one's perception of the problem and the nature of the task (Denhardt et al., 2018). Shahsavari et al. (2015b) classified the factors influencing creativity in clinical nurses into five groups. The intrinsic motivators include having an interest and love for nursing and doing the duties, positive emotions such as the sense of satisfaction, happiness, self-esteem, and self-belief. External motivators include workplace problems, workload and time pressure, success, and failure. Both of these motivators influence the behavior of nurses in different ways. The third group of motivators includes diligence, purposefulness, etc., and it shows why some people are more successful than others. The fourth group includes related motivators that lead individuals to help people and to be creative by inducing a profound understanding of the clinical issues along with a sense of altruism and empathy. Ultimately, spiritual motivators and religious beliefs also stimulate creativity in clinical nurses. In addition, a review study, which examined ways to develop and measure creativity in nursing, has referred to self-directed learning and teamwork as effective factors in increasing creativity in nursing learning and practice (Ma et al., 2018). Karpova et al. (2011) claim that the most important factors in increasing creativity include the creation of opportunities for creating ideas (problem-solving, designing and combining experience and knowledge), and being aware of the surroundings (exploring and asking the question), and programs that stimulate motivation and curiosity to raise questions, explore answers, and have diverse and creative thinking. Therefore, while personal characteristics and intrinsic motivations are the most important factors in stimulating creativity, the creation of a supportive environment by managers and authorities that also affects an individual's motivation plays an indirect role in its emergence (Tsai et al., 2013).

**Consequences:** Consequences are caused following the occurrence of a phenomenon. Creativity means offering new thinking to improve quality. The researchers have interpreted the consequences of creativity in different ways. Shahsavari et al.

(2015c) concluded in their data analysis phase that creativity is effective at both individual and organizational levels. At the individual level, it improves self-esteem and self-confidence. The pleasure of discovering is also considered as one of the creativity-related positive emotions. Creativity is also the result of positive emotions and physical and mental health. At the organizational level, creativity leads to simplification of the task, increased quality of care, reduced financial burden, safety, and comfort of patients, nurses, and other nursing personnel. Creativity improves organizational effectiveness, motivation, and teamwork. In other words, from an organizational perspective, increased productivity, lower costs, higher quality services are among the consequences of organizational creativity.

### Empirical Referents

Empirical referents are recognizable attributes of the concept whose emergence signifies the existence of the concept. Empirical referents are more important, especially when concepts are abstract and difficult to measure. It aims to identify the concept and facilitate its measurement (Walker & Avant, 2011). Here, several empirical examples put forward by the professional panel of the American Nursing Association (ANA) are presented. The predictive care model which enables the health system to anticipate and take special action to prevent disease, design an inspired infant wear, establish a direct caregiver connection for the elderly at the end of life, create safety campaigns for healthcare professionals, collaborative care clinics or professional international clinics, create hospital innovation units with new nursing roles, create units and motivational tools for patients, etc. through obtaining information from electronic medical records are among the creativities of American nurses (Hall & Wood, 2013).

Various tools and software have been developed to improve the quality and efficiency of the health system worldwide. For example, Robea is a nurse robot, the idea for the construction of which has been given by RIKEN-SRK in Japan to help older patients become more independent. New ideas for the construction of surgeon, scrub robots, and etc. are also becoming a reality (Eriksson & Salzman-Erikson, 2017). Shahsavari et al. (2015c) in Iran interviewed several creative nurses and examples of nursing creativities, including a wound washing machine for orthopedic patients, automatic washing of the dressing, a C-ARM desk (C-shaped arm is an imaging

scanner intensifier), a robot that stretches out the patient's leg during surgery, electronic tourniquet machine, optic laparoscope that is placed under a surgeon's microscope to help students see eye surgeries better on a monitor.

As aforementioned, creativity in clinical nursing is not limited to the creation of useful devices. Many new creations may be new ways of taking care of or meeting the needs of patients (Price, 2006). The development of useful and practical questionnaires, such as patient assessment forms, shortening forms, creation of online or cellphone-based online content by nurses, creation of international clinics are among different examples of creativity in clinical nursing. However, there is still a long way ahead in the field of creativity in nursing care. Various tools and questionnaires are also explained in the field of nursing creativity which measure different aspects of creativity such as Torrance tests of creative thinking (TTCT) (Torrance, 1990), Spanish creative intelligence test (CREA) (Almansa et al., 2013), and Rendcip's standardized creativity questionnaire (Nikbakht et al., 2014). However, only one of them measures creativity in the nursing field. In fact, there is a need for an appropriate tool with satisfactory psychometrics to measure nursing creativity (Ma et al., 2017).

### Conclusion and Recommendations

Creativity in nursing care is a complex concept, which has been discussed more frequently in theory than in practice. Therefore, there is a need for extensive studies on concept explanation. The aim of this study was to analyze the concept of creativity in nursing care. Creativity has various meanings, such as creating, making, producing designs, product relationships and attributes, a new and useful set of operations, reconstruction of old ideas, and a problem-solving method. However, the implementation of creativity in nursing clinical settings is of particular importance. Factors such as the existence of a supportive clinical environment, having some personality traits such as motivation, sensitivity to surrounding issues, divergent thinking skills, resistance, and having sufficient knowledge and experience can affect creativity in the clinical setting.

The results of this study revealed that creativity in nursing care includes the mind fluidity and creation of new ideas for patient care in the field of nursing practice in a way that the new method of patient

care is simple, useful, effective, cost-effective, and safe. This requires a creative vision, creative sensitivity, and creative thinking in a way that the sensitivity to the problem, the ability to generate new ideas or reconstruction of old ideas, and connecting ideas to select new ways of care result in successful decision-making in the clinical setting.

As noted, creativity in nursing care simplifies tasks, saves time, and improves quality. Therefore, nurses' perceptions about the concept of creativity in nursing care and the importance of its application in practice will be enhanced if such concept is clarified, and they thus will be able to successfully implement their creative thinking in providing patient care in today's complex world. It is worth noting that our goal in this article is to refer to creativity in nursing care, which provides a platform for further discussion. There is a need to clarify the concept of creativity in nursing as a profession and other related areas. These include creativity in monitoring, management, budgeting, organizational charter, and human resources, accreditation, quality assurance, payment system, nursing shifts program, personnel charting based on the type of care, and indirect nursing care including nursing report, counseling, follow up, etc. The emergence of creativity in each of the above areas requires us to recognize it and create a way for the emergence of the context at the individual and organizational levels.

The concept of creativity is very complex and abstract. Therefore, clarification of this concept is very difficult. Also, this analysis was carried out relying on the available evidence that we could find, therefore, it is suggested that the results of our findings are combined with other new and unavailable evidence to clarify this concept.

All nurses can act as agents encouraging the change in processes and policies and the use of technology to improve better and cheaper care for patients and society. Nursing creativity leads to the development of better healthcare policies and practices, improvement of the quality of care, and advancement of health information technology. By considering creativity and its roles in patient care, this study was aimed to attain these goals. It is an educational guide for future nurses to implement creativity in practice. Also, this finding is basic for further research in the field of creativity and can be used for the development of specific tools.

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