Analysis of the concept of family-centered care in chronic diseases: Rodgers’s evolutionary approach

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Abstract
BACKGROUND: Considering the fact that hospitalization of a family member in the intensive care unit (ICU) can have a great impact on different aspects of the life of the patient’s family, the purpose of this study was to clarify the concept of family-centered care with chronic diseases admitted to ICU.

METHODS: In this study, Rodgers’ evolutionary concept approach was used to analyze the concept of family-centered care for chronic patients. Criteria for entering articles, books and scientific information in English and Persian from 1980 to 2016 on family-based care and chronic diseases were selected using scientific databases.

RESULTS: Family-based care in chronic diseases is a concept that processes nature with care management, education and interaction. Also, three types of forerunners here include family-related predictions (family efficiency), self-confidence (system-related), adequate resources, social factors and cultural factors (related to care providers), participation (in this case).

CONCLUSION: The concept of family-centered care has evolved over the past few years in relation to chronic diseases. Nurses have significantly improved their knowledge of family care mainly focusing on improving the families of patients. Therefore, the nurses in the care groups have been significantly influenced and have been able to assume the responsibility of family-based care groups.

KEYWORDS: Proof of Concept Study, Concept Formation, Family-Centered Nursing, Chronic Illness

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Introduction
Each year, many families experience the admission of one of their beloved to the hospital because of chronic diseases in the intensive care unit (ICU). Hospitalization in these areas potentially has a tangible and terrible conception for the patient and family and poses many problems that avoidance of their negative effects is unavoidable.¹ Hospitalization in special care units and lack of communication with the family create mental and physical stress for the patient and the family,² and constrains people for excessive or inadequate sensory stimulation (ISS).³ Fear of losing one of the family members, fear of the future, fear of financial burden of disease on the family, changes in family roles, anxiety and distress, depression, loneliness and discomfort are among the threats posed by hospitalization which can affect the integrated family system.⁴ In most cases, ICU patients are not able to participate in decision-making for therapeutic purposes, and in half of the cases, this decision is taken by family members.⁵ These threats and stress, along with a lack of awareness, can significantly reduce the ability to decide for medical purposes, as well as the interaction

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between the family and the treatment team. In the long-term period, it can cause many physiologic and psychological illnesses. The needs of patients admitted to the ICU and their families have been studied in many papers. Patients’ presence alongside their families and vice versa and participation in patient care have been introduced as one of the essential requirements. Providing information, support, reliability, comfort and convenience for the patient and family are among other needs for both groups. Moreover, the studies indicate that providing family’s support and information are required in the hospital environment, especially in ICU during the treatment of the patient. Knowing the treatment plan, teaching the family and using their participation are among the most important needs. It associates the educational-related support of nursing staff especially during the care of the patient.

In this regard, one of the ways of empowerment of the patient’s family is the implementation of family-based care, in which a close relationship is established between the staff and the family of the patient. In such a space, not only the patient, but also the family and health personnel will benefit from it. In fact, most families tend to take part in all aspects of caring for a patient and often have this partnership for themselves. Also, the presence and participation of the family is beneficial to the patient and promotes the improvement and reduction of the complications of the disease and decreases the patient’s hospitalization days. On the other hand, the presence and participation of the family in the care of the patient will strengthen the family relationship and reduce the negative effects of the disease in the family. Because the most effective services are those that emphasize the role of the family in treatment.

Family-based care is a health care approach that shapes health philosophies, plans, ease of care and plans, daily interactions with patients, families, and doctors and other health workers. In the family-based care system, the emphasis is placed on the patient and the family, and the family function is considered in terms of the role of all members not merely as a member of the family’s patient. In principle, participation in care is based on the values and beliefs of the family.

In family-based care, the nurse and members of the health-care team empower and strengthen the family by providing opportunities for one-family members to demonstrate their capacities and abilities to provide and respond to patient needs. Nurse’s duties in providing family-based care, interaction with family members and the ability to make positive changes in the family, utilize the power of each individual member. With the continuity of this relationship, the family plays a fundamental and positive role in deciding on the most important and decisive affairs.

The nurse’s role in this field is not to interfere and influence the decision-making process of the family, but to support them and actualize potential abilities to promote the evolution of the members. Research has shown that supporting the family, giving information and training them will make them feel control and power on their own positions and take more care of their patients.

Although the patient’s needs are very important during admission, it is also necessary to pay attention to the needs of the patient’s family. They, indeed, can take care and support from the patient when they have a piece of mind. Studies have shown that nursing-family interactive care model can be a suitable practical guide for interactive care by nurses and parents in view of the increasing trend of therapeutic services from a therapist-based approach. In this model, all decision-making and plans in the intervention are directed at the family-centered service.
Concepts create the components of theories, and there is a need for concepts to form a theory to evolve. To advance each discipline, expansion, development, and evolution of the concept are of particular importance. In nursing, approaches and strategies are used to develop concepts. The analysis of the concept is the basis of the theory and is one of the effective processes for the evaluation, development of the theory and knowledge of nursing. Many of the basic concepts of nursing have not been clearly analyzed in the analysis of previously-defined concepts. Therefore, the analysis of the concepts leads to thinking about a good concept, in which the attempts are made to determine and interpret the logical and psychological dimensions of the concepts. Conceptual analysis not only emphasizes definitions and meanings of concepts but also discusses their development.

In nursing science, the concept of analysis is a prerequisite for the development and evolution of research. On the other hand, we need to use concept analysis if we want to develop nursing science through research and scientific and rational development. In analyzing the concept, the principle of originality and inductive method is used to clarify the meanings. Conceptual analysis leads to the consensus meanings of nursing, knowledge, development, and progress in nursing.

Rodgers’ evolutionary analysis approach focuses on their concepts and their function in spreading knowledge. In the Rodgers’ evolutionary perspective, concepts are inductive, spin, and step-by-step to evolve. Also, in this approach, the meanings of concepts are not constant. Progress over the period of time, and the context or social context affect the meaning of concepts. Rodgers’ evolutionary concept analysis believes that concepts should be continually modified so that their clearer meanings are revealed. The aim of this study was to reveal the concept of family-based care in chronic patients in ICU and to determine the characteristics, the implications and consequences of this.

Materials and Methods

The Rodgers’ convergence process is a rotary and nonlinear method. In Rodgers’ evolutionary method, data collection and analysis are in a structured, clear, flexible and inductive approach to the social and cultural context of various professions.

The first step is to define the concept. In this research, the concept of family-centered care in intensive care units was investigated. The second stage was the sampling of published studies that were analyzed and researched in the published literature on the concept of family-based care. Based on Rodgers’ evolutionary approach, PubMed, ScienceDirect, google scholar, ProQuest, Medline, and a cumulative index of nursing and allied health literature (CINAHL) were selected.

In the initial search of family-oriented care terms, specialized care units and finally the combination of these two were used together. In this research, the criteria for entering the texts for incipient research and analysis of data were published in Persian and English on family care and special care between 1980 and 2016. To have a better vision, the concept of the original sources and existing books were also used. After the initial search, 68 articles were chosen based on the title or the abstract terms related to the concept.

Results

Each article was reviewed at least once. In the initial search, about 195 articles were examined. Then, according to the observance of entry and exit criteria, the number of articles was reduced to 94. Finally, 68 papers and two doctoral theses and a master’s dissertation in the field of nursing and non-nursing were chosen. The main terms of the study, in the title or abstract, were selected based on full or in the abstract...
form of the researcher. A comprehensive and complete concept of nursing books was used in the analysis process.

Therefore, the researcher with a frequent and accurate study of books and articles identified the codes related to the concept of family-centered care. Through reading the texts, information about the features, the fore and the consequences of the concept, the words of successor related to the concept were summarized and coded. In this study, the same items were identified and structured using rotary process and internal analysis. Then, they were identified in the main themes of the study.

**The features of family-based care in ICU:** Properties are the key and duplicate characteristics of concepts found in relevant texts or articles. In the first stage of the analysis of the concept, the characteristics must be specified. By identifying the features, a more precise and realistic definition of the concept can be presented. In the present study, the concept of family-based care in ICU was identified as a process-oriented concept with features of care management, education, and interaction.

**Education:** In all of the data, there was a relationship with the teaching of materials. The articles emphasized family education and care for the patient. Some recommended individual training and some group training. Training is for the proper care of the patient and the use of education to emphasize on education systems, teamwork, and family-patient interaction and family engagement to provide proper care for the patient.

Caring education is the main focus of family-based care; thus, families who have not seen their care have become more likely to be hospitalized in their careers. Family-based care education has led to an increase in family health information. To enhance the level of knowledge, the training sessions have been used by group discussion and training manuals.

The lack of training for nurses with special care about nursing the patient’s family along with the responsibilities of nurses and the lack of nursing staff are among the reasons why nurses with special care should not allow the patient’s family to have adequate access and participate in patient care. Clinical care for the patient’s family has led to the participation of the patient’s family in patient care. For example, studies conducted by the Patient-Centered Family Care Institute showed that care education by the healthcare staff to the patient’s family resulted in improvement of caring behaviors in the family of patients admitted in the special section. Also, the results of other studies indicated that education with family-centered care has a direct relationship.

**Interaction:** Studies have shown that one side is family interaction, and family interaction with the health team is vital for family-based care. Collaborative care planning is developed through the interaction of the client’s family with the care team and the patient’s family has active participation in the care program. The results of the studies showed that the interaction of the patient’s family with the therapeutic team is necessary for assessing the needs of the patient.

Also, other studies have shown that lack of psychological interaction in the education of care in the family of patients leads to family-based care failure. Through interaction, the family can manage problems and can better take care of its own patient.

In a study, Ramezani et al. concluded that the interaction between the family and the primary health care team is essential for the development of family involvement in patient care. As collaborative approaches have led to great effectiveness in the care of patients in intensive care units.

**Care management:** Another aspect that is related to the concept of family-based care is
the control of care. In a study on family needs of patients admitted to the intensive care unit, it was stated that participation in control and care management is a two-way process, and participation in care depends on the control of the care by the family and care control. The relationship between the uses of these two concepts was somewhat ambiguous, and the concept of participation in care was more than the control of care.27

In a study called management and control, the results showed that the process of care management led to improvements in the health of patients.24

Care management: The concept of care management in ICU is so intrusive in our thinking, used in the design and delivery of health services.24 Animal studies have emphasized on the application and effectiveness of the concept of care management.28

One of the main concerns in the field of care management is ethical observance and principles. Other concerns include lack of sufficient resources for the family of clients, initial readiness and care management skills, and the potential risks of caring for nurses and medicine by the family of patients.27 One of the important tasks to reduce implementation problems is to establish standards for care management. For example, the family-based care community can be mentioned.24 In these associations, the necessary education is given to the family of patients relating to decision-making, patient care behaviors, problem-solving, participation with a team for improving clinical outcomes, promotion of health status, quality of life, and, in general, any activity that helps prevent, treat and rehabilitation.27 In addition, the concept of care management is closely related to the concept of family-based care. The economic and political factors affect the concept of care management.21

The concept of care management may have different meanings for different people at different times. In the care management program, the caregiver’s family is involved in activities.20

Priorities of family care in the ICU: The second stage in the analysis of the concept of Rodgers’ analysis is to identify the goals of the concept in question. There are events and occasions that occur before the family-centered care takes place.22 Three types of advancements here include family-related advances (family efficacy, self-esteem), system-related (adequate resources, social factors, and cultural factors) and care providers (partnerships).

Efficiency in cognitive and social theories is highly utilized and the ability to perform a specific behavior is precise and through which the ability to perform care is predicted by the patient.18 Effectiveness is the ability to do family work and is one of the important factors affecting family-based care. In a study conducted by the American Family-based Care Association, the results showed that family efficacy, anxiety, depression and self-confidence affect family-based care.19 Therefore, the family of patients admitted to the ICU can be effective in improving their ability to function, well-being and the process of the disease by acquiring care skills.16

One of the important factors in family-centered care is in patients with special confidence. The results of the studies showed that families with high self-esteem and high self-care need less support in patient care, while families with low self-esteem and low self-efficacy have no role. Therefore, the healthcare team should spend a lot of time planning for training in these families.13 Also, the results of another study showed that those with hemodialysis had less self-esteem. As a result, family-based care was weak due to hopelessness, depression and mental, psychological and physical problems.12 Therefore, it is necessary for the family of patients to have more information about the state of illness and their care plans and to be
encouraged to take responsibility for the patient’s health. The participation of the family of patients in the care programs, in addition to their greater cooperation with the health care team, changes their behavior in accordance with the health-care patterns and increases their self-esteem.

A systematic structure is essential for predicting social support, available resources and the impact of cultural factors on family-based care. The results of the study showed that if the family of patients had sufficient social support and resources, they would have enough motivation to learn care for implementation of the therapeutic protocols and less likely to experience physical, mental and psychological problems. In addition, social support and sufficient resources have led to increased self-esteem in families.

Individual and social support leads to increased family-centered care capabilities in the family of patients. A study on social support in people with diabetes showed that one of the reasons for the neglect of family care was the lack of social support. Cultural factors also play a role in family-based care. Therefore, in the health-care system, the culture of quality promotion and quality of care for patients in the special department should be defined as a goal and should be sought to achieve this goal.

The involvement of caregivers with a family member plays an important role in the family-based care process in ICU. For example, in a study conducted by the Family-based Care Society, the results showed that if the patient’s family and care providers are responsible for the treatment and family is supported by the healthcare team in the care of the patient, the family members will feel more competent and will be actively involved in the care of their patients.

Henneman and Cardin study on the role of family in caring for chronic patients emphasizes the active participation of the patient’s family, and it is based on the philosophy that if the family plays an active role in patient care, it has a higher quality of life. Many adverse effects of the disease can be controlled by family-based care. Also, participation and increasing the skill of family in patient care can change the behavior and improve the health of patients.

**Consequences of family-based care in ICU:**

The consequences are from the concept. Consequences of the concept of family-centered care in this study was to reduce stress, increase the quality of life, change lifestyle, increase knowledge and increase family adaptation with patient status. The outcomes of the studies showed that aftercare education in the family of patients in ICU improved the quality of life. The family learned and respected the patient’s protection and prevention of the transmission of disease to others, they set their own plans for their patients, and given the status of their patients and their supportive institutions, and counseling centers supported them. The level of stress in the family of patients was reduced and they were busy with their daily activities.

Other studies also showed that if families with many physical and psychological problems get supported by friends, teamwork and community, and attend care classes and receive a good education, the quality of their lives will increase significantly, as a result of their dependence on the health team. For example, the results of studies have shown that if the family and care providers took on both the responsibility for treatment, the sense of competence increased due to participation in the care of the patient in the family, which led to an increase in the quality of life of the family and the recipient.

**Texture or background:** In relation to the context, the results of the study showed that the concept of family-centered care was the central concept in the special care centers, although it was only used in the concept in
emergency care providers or treatment centers (hospitals). During the past years, family-based care has been used repeatedly and the role, breadth and function of healthcare providers in the community. Family-based care involves physical, mental and psychological care in the acute phase of the disease by the family in health care centers. Several articles in the form of theoretical models, review, and meta-analysis and concept analysis have been discussed in the context of the concept of family-centered care. Several studies have shown that family-based healthcare programs can be enhanced through family planning programs in the family of patients, since family-based care delivery is more cost-effective and easier.

As stated in the previous article, various studies have been carried out on the family of patients in special sectors. Their results showed that the family care process in the patient's social context would lead to an increase in the quality of life of the family and patients.

**Alternative words and related concepts:** Alternative words and related concepts help to understand the differences, similarities, explanations of meanings, and the description of the concept and the term.26 Alternative words and related concepts of family participation, family-focused care, family-oriented care, and family empowerment have been mentioned in the articles.24 The term "family participation" has been used in more articles than "family-based care". However, the results of other studies showed that, in general, family-based care was used more than other terms.15

**Discussion**

Over the past few years, numerous factors such as time and context or background on family-centered care in ICU have been implicated in studies. Several studies have been conducted in specialized care units.8 Generally speaking, problem-solving skills, goals and evaluation can determine the characteristics of the concept of family-centered care.7 In relation to the concept of family-based care, researchers have a number of views. The differences in viewpoints are due to the performance, training, experience, role and scope of each discipline.

In the present study, the concept of family-based care in patients in ICU centers was identified as a process-oriented concept with care management features, care control, education and interaction. The results of this study showed that nursing articles have focused on family-centered education. Some recommended individual training and some group training. Patient care education is the main focus of care management and participation in care. When the family of patients is not trained care education, the patient is more likely to be admitted to the hospital. Also, literacy and health information lead to providing effective care of the patient,5 in relation to the educational characteristic. The results of studies have shown that literacy, awareness and health information play key roles in care management and lead to increased family management capacity in specialized care units.11 Similarly, other studies have shown that in health education systems, education and health information are important and effective factors in the ability to manage care by the family. It has a great influence on the ability to perform in family-centered care.12

Educational strategies can be independent of age and socio-economic factors; therefore, each family at any socioeconomic level can obtain the necessary information in relation to health issues. However, published literature on nursing has influenced many factors, including social, cultural and contextual factors, on family education, assessment and evaluation.16 In general, the results of other studies in the field of education are similar to our study.
Another feature of this study was interaction. The results of the study showed that interaction is the basis of family-based care and can be between the family and a nurse, patient and friends. The family interaction with the health team for the care of the patient is vital and important. Through the interaction of the patient’s family with the care team, the needs of the patient are resolved and the family can take care of the patient more effectively. The results of the studies showed that nurses frequently interact with their families in order to solve the problems of clients.14 Communication is important for family involvement in planning for a patient. Communication is essential, and planning and participation in care are difficult and even impossible without communication.17

Another feature that is related to the concept of family-based care is the ability to control family care. The results of this study showed that family-centered care and care controls are a two-way process and the experiences of life and cultural background of the patient’s family. Controlling caring plays an essential role and this concept is a broad concept that takes into account the integrity of the individual.18

Care monitoring is used in nursing or non-nursing studies. The results of this study clearly demonstrated the application of care management with family-centered care.19 In other studies, the results showed that the concept of family-centered care in nursing was more applicable to care management concept.22 Other features of this study were care management. The results of this study showed that the concept in designing and providing health services, reduces patient care problems, decision-making, problem-solving, participation with the treatment team to improve clinical outcomes, improvement of health status, promotion of quality of life, and in general, every activity that contributes to prevention, treatment and rehabilitation.23

Conclusion

In this study, Rodgers’ evolutionary concept analysis method was used to analyze the concept of family-based care using published texts in this field. The characteristics reflected from the concept of family-based care, education, interaction, and care management. The results of this study showed that the concept of family-centered care has evolved over the past years in chronic patients and patients admitted to special care units and nurses have been able to significantly improve their knowledge of family-centered care for patients. The syntax that nurses in the care groups have been significantly influenced by and managed to take responsibility for family-based care groups. As a result, this has led to an increase in the autonomy of the nursing profession and, ultimately, in strengthening nursing knowledge.

Conflict of Interests

Authors have no conflict of interests.

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