

## Explaining the Context of Patient-Centered Care in Critical Care Units

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### Abstract

**Introduction:** Patient-centered care refers to care with respect for and responsiveness to patients' preferences, needs, and values; in this type of care, it is ensured that a patient's values are valued in clinical decision-making. Achieving Patient-centered care is not simple and needs a proper context to be provided.

**Objectives:** The purpose of this study is to explain the context of Patient-centered care in critical care units.

**Materials and Methods:** This study is of a qualitative nature with a content analysis approach. A total of 26 deep, semi-structured interviews were used in this study. The research setting included critical care units of selected hospitals of the Tehran University of Medical Sciences. Participants' speeches were recorded with a tape recorder and immediately transcribed word-by-word. After reading the interviews, the resulting data were coded and then classified according to the similarities and differences in order to understand the general text of the interviews; the sub-categories and the sub-categories were extracted.

**Results:** The study data led to the identification of three categories: specialized nature of care, individual factors, and organizational factors. The third category consisted of three sub-categories such as hardware, attention-to-model experiences, and the actual performance of managers.

**Conclusion:** Patient-centered care is a multidimensional and subjective concept focused on nurses' perceptions. In order to achieve Patient-centered care, not only the effectiveness of the nurses' efforts but up-to-date knowledge, the hardware structure of care, and the performance of managers at a wider level are also important.

**Keywords:** Patient-Centered Care, Critical Care Units, Hospital, Nursing Staff

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## Introduction

One of the important concerns in the nursing profession is the use of appropriate strategies for the development of nursing care quality. The use of quality improvement strategies plays an important role in the development of new care guidelines and quality care indicators [1]. The quality of patient-centered care in the health system is defined as providing safe, timely, effective, efficient, and just care focused on the patient [2]. Patient-centered care is, therefore, recognized as one of the vital components to improve the quality of care. Many studies have been conducted to identify the key aspects and elements of patient-centered care in the field of nursing, medicine, and health policies. For example, in nursing, components such as communication with the patient, continuity of care, and attention to patients' preferences have been considered [3–5]. Hobbs defines patient-centered nursing interventions as solutions to meet patients' needs, coordination, individualization of care and skills, and expertise [6]. Patient-centered care is associated with positive outcomes in healthcare systems so that the results of Radwin et al.'s study show that there is a correlation between patient-centered nursing care and achievement of the optimum outcomes in the healthcare system [7], but patient-centered care is not simple and requires the management and organization of care, organizational support, and the ensuring of a good working environment to provide care [8, 9]. Achieving patient-centered care and a subsequent increase in patient satisfaction require the availability and optimization of the context needed. The results of a study, show that the majority of patients in the country have a relative satisfaction with critical care units nursing services [10]. The another study, show that patients' satisfaction with nursing services is higher in specialized wards [11]. Now,

with regard to the evidence available in the country and the relative satisfaction of patients with care provided in these wards, it can be said that it is possible to explain the concept of the patient-centered care context in these wards. The question now is: what are the problems and barriers to providing this care despite the positive outcomes of patient-centered care? In the literature, lack of time to pay attention to all aspects of a patient, lack of nursing staff, and the absence of comprehensive policies are barriers to providing patient-centered care [12–14]. The literature review suggests that a few studies have been done to identify the patient-centered care context.

Since nurses are among the key professionals in care-giving system, the identification of a patient-centered care context can, from their point of view, play an important role in achieving high quality care. Care is provided in a variety of care settings, one of which is the ICU. Provision of ICU care is not simple and requires a high level of care and quality. Most of the ICU care is concentrated on patient-centered care [6]. Therefore, considering that patient-centered care is a context-dependent and multidimensional concept [15], the viewpoints and views of nurses regarding the barriers to achieving patient-centered care can be adapted to their working environment. This study is aimed at explaining the patient-centered care context in the critical care unit.

## Materials and Methods

A qualitative study design, with a contractual content analysis approach, has been used for data collection and analysis for the purpose of understanding the ICU nurses' perspectives on the patient-centered care context. The participants in this study included 21 nurses (16 women and five men) in critical care units (ICU, CCU, and dialysis), who were selected

from educational hospital staff of the Tehran University of Medical Sciences using purposive sampling, based on inclusion criteria. Based on the data obtained from the study, theoretical sampling was also used, and so interviews were conducted with five patients admitted to the critical care units. The completion of sampling in this study was based on the achievement of information saturation. Having work experience of at least two years, having a job in the critical care unit, and willingness to participate in the study and interviews were among the inclusion criteria. The selection of both female and male nurses working in various job shifts, with undergraduate and postgraduate degrees, was effective in achieving the maximum variability.

Deep semi-structured interviews were conducted individually and face-to-face. The duration of the interviews varied between 30 and 55 minutes and took place in the quiet setting of the nurses participating in the study. The interviews were conducted by the first author of the study, recorded during each session, and then written word-by-word on paper. The main questions of the interview included the following:

What's your perception of the concept of patient-centered care? Based on your experience, what are the barriers to achieving patient-centered care in critical care units? Based on your experience, what factors affect the patient-centered care in an critical care unit? In addition, probing questions were used to clarify the responses of participants during the interview. Moreover, observation was used during the process of data collection, and the researchers made notes to record their observations. In this study, a content-analysis approach was used. Content analysis, as a research technique, involves specialized methods to process scientific data. Qualitative content analysis deals

with data reduction, giving them structure and order. Content analysis is a method of exploring the symbolic meanings of messages [16]. In order to analyze the data, the recorded interviews were written word-by-word on paper and read several times for a general sense of the data. The text of the interviews was divided into semantic units that were summarized. Semantic units are abstract, and tagged using codes. Then, the codes were sorted according to the comparison of the similarities and differences with the categories and sub-categories. The initial analysis of data from this study was reviewed and monitored by the first author, and then by the second and third authors. The accuracy of the study is one of the important issues in all stages of the process of conducting qualitative research and leads to the auditor's audit of the events, effects, and actions of the researcher [17]. In this study, peer-checking was used to gain reliability. The peers in this study were professors and PhD students familiar with qualitative research who did not participate in the process of this study. The data were independently coded and categorized by the authors. Then the classes of the analysis were compared with each other and discussions held among the authors until achieving a general agreement. Moreover, member-checking was also used where a summary of the extracted categories was given to a number of participants in the study to confirm their experience based on the extracted categories. Precise auditing has been used to ensure reliability of the study from the early stages and during the data collection phase.

The proposal of this study was approved by the Ethics Committee of the Research Council of Tehran University of Medical Sciences (91D130168). The purpose and method of the study were explained to the

nurses and patients participating in the study. In addition, during the study process, participants were free to withdraw from the study at any time, without any fines and losses. Informed written consent was taken from the participants for participation in the study and the recording of the interviews. The nurses and patients participating in the study were assured that the information they provided would remain confidential.

## Results

The average age of the nurses participating in the study was 38.9 years and their average work experience was 11.6 years. Other demographic characteristics are given in Table 1. The results of the data analysis led to the extraction of 764 initial codes, followed by the identification of three categories: the specialized nature of care, individual factors, and organizational factors. The third category of the study consisted of the three sub- categories such as hardware factors, attention to model experiences, and the impact of managers' actual performance, aspects that are discussed below along with each category and sub- categories with direct participant quotes (figure 1).

### *The specialized nature of care*

Providing care in the critical care unit is not simple and requires a high level of knowledge, awareness, and skills. Providing high quality care to patients admitted to special wards is also important because of their special and critical conditions. Having the knowledge and skills necessary to work in special wards, and familiarity with new healthcare systems and therapies are among the most significant issues in providing care in these wards. The special wards' care context (hardware and software) has created a different category of providing care compared to other wards and has affected

the way nurses provide care. The difference between special and other wards, special qualities of nurses, and specialist nurse-patient proportion have created a different type of healthcare in these wards. The nurses participating in the study believed that a particular physical design of the special wards could make it possible for all the patients to be exposed to the nursing staff, thus reducing the chances of neglect, though there are enough facilities for observing a patient's condition in special wards compared to other wards. In this regard, one of the CCU's nurses said: "Well, the [effect] of special attention in the special ward is that the patient is calm in the special ward, while in the emergency department there is a lot of commuting and noise ... But there are good facilities and equipment for patients in the special ward ... On the other hand, special ward nurses treat their patients well in terms of basic care. If the patient tells her, 'Madam, please give me a glass of water,' they will give him (patient), or, if a patient does not have the food, the nurse, because the patient is in front of her, will come and say, 'Why don't you have the food?' But, in other wards, it is not important whether they have their food or not ... because the nurse does not see the patient because there are too many patients and there are only two nursing staff"(A female nurse with 14 years of experience in ICU, Participant No. 7). According to the nurses participating in the study, the presence of an adequate number of nurses is necessary to provide comprehensive and patient-centered care, taking into account the needs, values, and preferences of a patient. They believe that, compared to the general wards, the relative nurse-patient proportion created a difference between providing care in special wards and other wards.

"We have eight patients in the CCU; we have more than 20 to 25 patients in other

**Table 1: Demographic characteristics of nurses participating in the study**

Demographic characteristics	Number (%)	
Age (Year)	26 – 35	5 (23. 8)
	36 – 45	12 (57. 14)
	> 45	4 (19. 04)
Gender	Female	16 (76. 19)
	Male	5 (23. 8)
Work Experience (year)	2 – 9	6 (28. 57)
	10 – 17	10 (47. 61)
	> 17	5 (23. 8)
Wards	CCU	7 (33. 33)
	ICU	5 (23. 8)
	Dialysis	9 (42. 85)
Level of Education	BS.	18 ( 85. 71)
	MSc.	3 (14. 28)

wards ... they appoint four nursing staff in the CCU, for example, with eight patients, but there are 20 patients with two nurses in other wards"(A male nurse with nine years of work experience in the CCU, Participant No. 15).

#### *Individual factors*

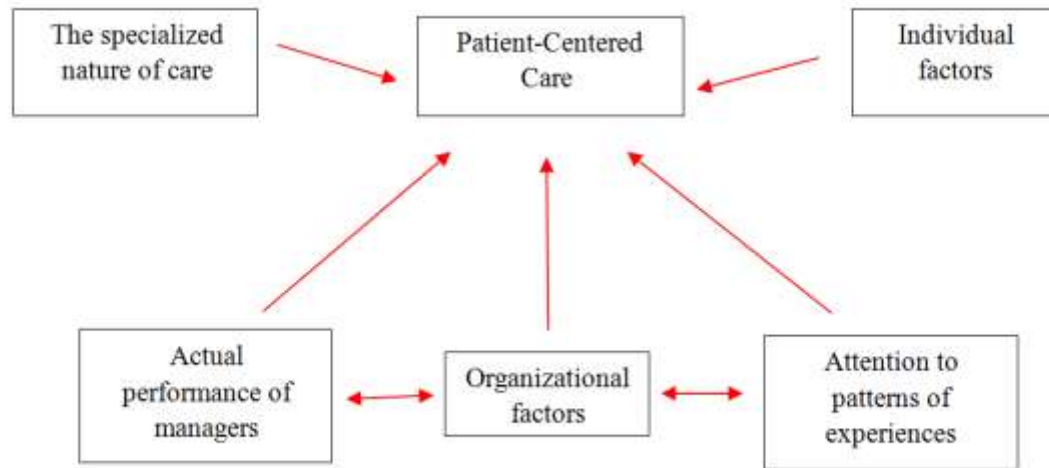
Individual factors in this study refer to immediate statuses directly related to the nurses themselves, which were considered to be effective statuses with statuses scope in patient-centered care. A nurse's views, beliefs, knowledge, and attitude regarding how to provide care determines the type of care provided by him/her.

The individual beliefs of nurses about care not only affect the manner of providing such care, but they also believed that the type of nursing practice had an effect on their personal lives. Some of the participating nurses in the study believed that someone outside the healthcare system should monitor their behavior and actions and show the outcome of their care. "I believe everyone needs to try to be the best in any occupation; we, as nurses now

whether this is a good discipline or not have accepted it and need to provide our services well." (male nurse with 11 years of work experience in a dialysis ward, Participant No.6).

In fact, this participant stressed his belief in providing good and holistic care. The fact is that he believes "we should be the best in everything". In another part of his interview, he cited the reflection of actions in life, saying: "It may have a cultural or belief root, and one believes that there is God in the end, and that we all respond to our actions one day; I believe, we will achieve whatever we do."

Based on the experiences and beliefs of the nurses participating in the patient-centered care study, the emphasis is on patient care, needs, patients' needs, attention to the needs of the patient and family, and special attention to the condition of each patient. In this study, up-to-date knowledge of nursing, efforts to implement scientific knowledge, and a careful and meticulous look at providing care are considered important factors



**Figure 1:** Factors affecting the patient-Centered care context

affecting the patient-centered care context. Nurses' individual efforts to acquire knowledge and keep it up-to-date despite barriers in the system help them to ensure their patients' satisfaction. Regarding up-to-date knowledge, one of the ICU's nurses said: "While I was working in the emergency department, I realized that once I got enough scientific information, it would be much easier for me to understand a patient's problems and help her" (female nurse, 15 years of ICU work experience, Participant No.4).

#### *Organizational factors*

The provision of care in critical care units is affected by the wider context of the healthcare system. In this regard, nurses point out the importance of managers' positions in the healthcare system and mentioned the following factors as being effective in achieving patient-centered care providing a suitable working environment, paying attention to the shortage of nursing personnel, the existence of guidelines defining the care and support of the nursing staff.

#### *Hardware factors*

In this study, medical care facilities and equipment were regarded as effective hardware factors in providing patient-centered care. According to statements of the patients participating in the study, a patient loses trust and confidence about receiving complete and comprehensive care services once he/she becomes aware of the lack of treatment and care facilities. In this regard, a patient reported his angiography experience as follows: "Yesterday, for example, in the operating room, the doctor said that you, for example, practice a 3rd and 3rd spring and the resident and the interns who were working had no spring. The problem was not very important. You know what I mean. At least it must as that patient is mentally protected, I noticed the absence of that spring and I was a little worried." (Male patient admitted to the CCU ward, Participant No. 19).

In fact, this participant, in describing his experience, pointed to lack of proper facilities for the patient as a source of concern and feeling neglected.

*Attention to patterns of experiences*

According to the statements of the participating nurses, the existence of effective patterns in the workplace plays an important role in guiding the nursing performance and care. The existence of successful partners and patterns in working environments and the use of their experiences and knowledge have been effective in directing nurses to focus on patient-centric care. ICU nurses are trying to provide patient-centered care to develop a patient-centered culture. Based on the experiences of nurses participating in the study, the proper functioning of nurses, especially experienced nurses, have been found to be effective in creating a successful and effective pattern in the minds of young and novice nurses. A number of participants recognized the importance of the existence of caring patterns in the workplace and believed they could lead to the creation of other patterns. "I picked Mrs. R, as my role model when I saw that she, with all the work experience, did whatever she could for the patient, and focused all her attention on the patient and the family of the patient; this has had a great impact on me. I feel, now that I am in this field, I have to work well for the patient because this is the patient's right." (Female nurse, 14 years of work experience in the CCU, Participant No. 9).

*The effect of actual performance of managers*

According to beliefs of nurses participating in the study, providing patient-centered care requires the staff to maintain coordination and have uniformity in their words and deed, especially in case of nursing managers. According to the nurses, mere slogans on the part of managers without any real practice were among the factors that weakened motivation and could lead to the neglect of

important care points. Participating nurses stated that attention, seriousness, giving importance, and efforts of managers and their initiatives in implementing programs and care protocols emphasizing focus on patients (such as the clinical governance program) could double the subordinates' efforts to achieve such goals. One of the supervisors spoke about the effect of the actual performance of managers: "When a manager talks, he/she needs to at least execute 10% of it, and it must be limited to mere words. I say, for example, here, I have to do this. First, I have to implement it myself, we learn better from each other than from circulars"(a male nurse with 19 years of work experience, Participant No. 16).

A number of participants in this study also referred to the head nurse's management qualities. They considered the head nurse's supportive activities, the existence of incentive systems in the management style of head nurses as factors increasing the motivation to provide patient-centered care. A number of patients participating in the study also considered head nurses' management to be effective in guiding the performance of personnel and attributed the creation of a care and supportive climate to the management style of the head nurse. In this regard, one of the patients said: "All the nurses are good here because they are under the control of Ms. J.M. One is better than the others ... .They are really better because you know that Ms. JM is the boss here" (male patient in the dialysis ward, Participant No. 20).

**Discussion**

Based on the experiences of the participants in the study, it can be said that the availability of a caring context plays an important role in achieving patient-centered care and improving the quality of care. A proper care environment framework focused on the context where

care is provided is patient-centered care requirements. The elements of this structure include an appropriate design of the care environment and other factors such as expertise and specialized equipment [18]. Considering that there is less service disruption, and the presence of benefits derived from experienced nursing staffs and organizational discipline, special-care environments enjoy good conditions for implementing patient-centered care programs. A proper and specialized care context leads to an increased efficiency in providing care and, as a result, positive care outcomes such as effective care, relief from pain, and meeting the patient's therapeutic needs are achieved [6]. Consistent with the results of this study, McCormack et al. refer to features of the specialized care environment as one of the crucial elements in providing patient-centered care. They refer to the patient-family-nurse relationship as a framework for patient-centered care [19]. A number of studies also state that the special design of specialized care units is important for establishing better communication with the patient [6, 20].

In investigating the second category of this study, nurses pointed to individual factors influencing the formation of a suitable context for providing patient-centered care. A review of the related literature showed that most studies stressed knowledge and improvement of the individual performance of nurses, while a few studies focused on effective individual factors such as beliefs of nurses. For example, Epstein and Street's study highlights the quality at the individual, professional, and organizational levels as pre-requisites for providing patient-centered care. In this article, evidence-based practice and the use of up-to-date knowledge of the nurses play an important role in taking into account the needs and

preferences of patients [21]. In line with the findings of the present study, Small and Small also reported that one of the important aspects of the development of the patient-centered practical model is the identification and application of nurses' individual abilities and roles. Individual characteristics and the personality of nurses, focused on human health and providing unconditional love, and the beliefs of nurses in respecting the human dignity of patients are effective in the formation of the patient-centered care model [22]. In investigating the third category of the study, nurses pointed to organizational factors that influenced the formation of a patient-centered context. From their point of view, attention to hardware aspects in the organization, attention to the experiences of the patterns, and the effect of managers' actual performance are effective in providing high quality care. Studies show that there is a significant relationship between organizational support, level of job satisfaction, and the quality of care [23, 24]. In this regard, Rathert et al also referred in his study to the organization's leadership style in the development and maintenance of a hardworking and model staff and the commitment of managers to create a dynamic and supportive environment as factors affecting the achievement of the patient-centered care environment, thus supporting the view that highly committed nurses and the creation of a motivational and supportive atmosphere leads to positive outcomes in providing care [25]. Patient-centered care involves a range of activities starting from patients' involvement in self-care to community participation in health decision-making. Meanwhile, the performance and participation of managers and their planning must be in line with the goals and expectations of patient-centered care programs [26]. The findings of the



study conducted by Jayadevappa and Chhatre [27] also show that a greater harmony in managerial planning, active participation of managers, and commitment to goals set to achieve patient satisfaction are among the effective factors in achieving patient-centered care [27]. Consistent with the findings of our study, Bell also referred to managers' attention to providing funds to the organization in order to achieve better care quality. Their findings showed that financial support provided by insurances to care services, cleanliness of care wards, quality of patients' food, and a reduction in patients' waiting time were effective factors in achieving patient satisfaction [26]. This article attempted to report some of the effective factors that shape the context of patient-centered care in critical care units. It is evident from the findings of this study that the specialized nature of the care and individual and organizational factors are among the aspects that influence patient-centered care. The findings of this study showed that in order to achieve patient-centered care, not only are the efforts of individual nurses effective but the up-to-date knowledge, hardware and software structure of care, and the performance of managers at a wider level are also important. This study also had some limitations including the fact that only the experiences of ICU nurses were used in this study. Perhaps, if the experiences and views of nurses in the other wards were also considered as concentrated groups, more enriched findings could have been obtained. It is suggested that other studies be conducted to provide a more comprehensive explanation of the patient-centered care context at the level of nursing managers, hospital managers, and patients.

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### Conflict of interest

No conflict of interest has been declared by the authors.

### Author contributions

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE

(<http://www.icmje.org/recommendations/>)

- Substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- Drafting the article or revising it critically for important intellectual content

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