

# The Transition in Intensive Care Unit Patients: A Concept Analysis

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## Research

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# Abstract

**Background:** Transition in the health system is associated with the movement of the patient between clinical units and between hospitals, This is a complex process with several potential challenges including medical errors, adverse events, increased costs and patient dissatisfaction. Evidence shows that there is a need for greater clarity regarding the concept of transition.

**Objectives:** The present Study was conducted to clarify the core elements of transition in patients admitted to the ICU.

**Methods:** Walker and Avant's eight-step model was used to guide this concept analysis to provide a comprehensive definition of transition. A Literature search was conducted on CINAHL, Scopus, Pubmed, and Google scholar using the following keywords: transition, intensive care unit, transition care, patient transfer and transition process. Thus, after an extensive review of resources published in the years 2000-2020, articles related to this concept were examined based on the inclusion criteria. Definitions, properties, applications, consequences and empirical references of the concept of transition were extracted.

**Results:** Transition is a complex, multifaceted concept with defining attributes: Critical points and events, disturb normal life, passage of change, instability and un-anticipated changes, Multiple needs, Inadequate continuity of care, Poor coordination of care and communication among health care providers, patients and families, multiple factor, multiple professionals, Awareness, Engagement And Adaptation. The differences in the response to transition according to the patient's condition or position (beliefs, attitudes, socioeconomic status, willingness and knowledge) and environmental conditions (the status of communication and support from the community) lead to the development of confidence, adaptation, recovery from critical illness and return to normal life or disability and other complications.

**Conclusion:** The transition is a process of progressive change and the adaptation requires training and environmental changes to improve and develop new skills for transition. Nurses play a supportive and complementary role in successful transition of patients. Therefore, studies need to focus on the evaluation of nurses' perceptions of patient transition and the consequences and outcomes. The result of this study provide a definition of transition that is relevant and useful for clinical research and practice in healthcare setting.

## Introduction

Transition is a process or a period of change and passage from one stage, form, or activity to another[1]. The definition of transition differs in each discipline, but is more focused on the responses that people make during the change[2]. Patients admitted to the ICU simultaneously experience several complicated transitions and these transition are related to health and disease, situation and organization. For example, transition from health to a life-threatening illness and vice versa, transition from specialized, technical and personal care to general care, transition from the sense of security in the ICU to a vulnerable

and unpredictable environment and ultimately, transition from despair to independence[3]. Most patients require support for the diverse and complex needs they experienced during the transition, and the patient's proper preparation is essential throughout the disease-health transition and other transitional experiences that they may experience simultaneously[4]. Today, with the advancements in technology, therapy, medical care and nursing, patients recover faster in critical situations. Therefore, the preparation and provision of optimal care throughout the disease – health transition and vice versa is vital for the patient to achieve complete recovery and prevent unwanted complications and improve the therapeutic outcomes[5]. The lack of literature specific to nurses' understanding of patients' transition during their Intensive Care Unit stay is concerning. Clarifying the concept of transition as well as physical, mental, and sociocultural manifestations for improving the quality of nursing care for patients with a critical condition [4].

Since the transition process is associated with fundamental changes in identities, roles, relationships, abilities and behavioral patterns of the individual, it is considered an important type of change. Transition often requires that the person combine the new knowledge with the previous knowledge to change the behavior and thus change its definition in the new social position. The challenge of nurses and those involved in supporting those who are in transition is to understand the transition process and provide effective interventions to help people regain stability and health[6, 7].

In recent years, the concept of transition has been highlighted in the healthcare system, and health care providers have to deal with their patients and their families during disease-health transition or other transitions (evolutionary, situational, and organizational)[8]. Conceptual clarity is a key factor in the distinction between nursing and other occupations[9].

The transfer of patients from the intensive care unit (ICU) to a general ward can present several challenges for health care providers. Such patients are at high risk of adverse outcomes, including readmission to the ICU, and increased nosocomial infections and mortality, with a resultant increase in hospital costs. The transition process includes physical, psychological and family dimensions, and so on. Therefore, health care providers need to be well-informed about the concept of transition to ensure the effectiveness of care. An analysis of this concept can be used to develop a care model in the transition of patients admitted to the ICU and help identify the attributes of this concept through the concept analysis process to bridge this gap. This article explores the concept of patients transition from the ICU.

## **Objectives**

This study intends to analyze this concept of transition in ICU patients using Walker and Avant's method, and develop a comprehensive definition of the concept of "transition" and its relationship with similar concepts by clarifying the meaning and the process of transition. By clarifying the concept of transition in association with the health system, its important attributes and characteristics would be well specified and well defined. This concept analysis paper is part of a larger study to develop an instrument to measure and evaluate the quality of transition care processes in intensive care settings. An increased

knowledge of transitions will improve nursing practice because it will offer nurses new possibilities for providing guidance, support, and assistance in enhancing treatment outcomes. One way of learning more about transitions is through concept analysis. Concept analysis is a systematic investigation of everything that is known about a concept to delineate the critical attributes of the concept. Walker and Avant suggested that concept analysis reduces the ambiguity of the concept and thereby increases its relevance and usefulness for research and clinical practice. Accordingly, the purpose of this article is to provide a conceptual framework for nurses and healthcare system which will assist them in their efforts to promote healthy transitions in Intensive Care Unit Patients.

## Methods

To define and determine the attributes and characteristics of the concept of transition in ICU patients, the basic principles of Walker and Avant concept analysis model were used in literature review, which consists of 8 repeating steps as shown in (Table 1).

**Table 1.** The eight steps (Walker and Avant)[10] used to analyze the concept of transition in patients admitted to the ICU

Steps:

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- 1- Selection of a concept
- 2- Determination of the aims or purposes of the analysis
- 3- Identification of all uses of the concept which may discover
- 4- Determination of the defining attributes
- 5- Identification of a model case
- 6- Identification of borderline, contrary, related, invented and illegitimate cases
- 7- Identification of antecedents and consequences
- 8- Defining empirical references

At the beginning of concept analysis, to find what is referred to as the “patient's transition” in related articles and resources, we performed an extensive review in several databases such as Cinahl, Scopus, Pubmed, Google scholar. (Table 2) shows the search strategy and the number of relevant articles found. Thirty-eight articles were selected based on the inclusion criteria such as original articles and review articles in English and Persian from 2000 to 2020 whose content defined and explained the meaning of the patient's transition from the ICU, accessibility to their full texts, and the lack of duplicability. The articles in other languages were excluded from the study. The quality of selected papers was evaluated based on the authors' reputation and the scientific validity of the journals in which the articles had been

published. The definitions, attributes, assumptions and implications of the concept of transition were extracted using Walker and Avant concept analysis model. Based on this analysis, an operational definition, defining attributes and empirical of transition will be offered.

**Table 2.** Search strategy and findings

Database	Articles Found	Number of Relevant Articles	Search Terms
Pubmed	1930	15	<ul style="list-style-type: none"> <li>· Transition</li> <li>· Health transition</li> </ul>
Google Scholar	1074	10	<ul style="list-style-type: none"> <li>· transition care</li> <li>· Continuity of patient care</li> <li>· Patient Discharge</li> </ul>
CINAHL	690	6	((Transition OR Transfer) AND ICU AND concept analysis) <ul style="list-style-type: none"> <li>· transition process</li> </ul>
Scopus	712	7	<ul style="list-style-type: none"> <li>· (Follow-up OR Transition care)</li> <li>· Patient transfer AND ICU</li> </ul>

The steps of analyzing the concept of the transition of patients in the ICU are described below in detail.

## Results

### 1-concept selection

According to the literature review, care providers are daily confronted with patients who are experiencing disease-health transition and other transitions[8]. Each transition is a unique challenge for patient and patient families and care providers involved in patient care[11]. Transition is a central concept in nursing, which was discussed by Meleis in “Middle Range Theories”[3]. The widespread use of the word “transition” demonstrate that this is an important concept[2]. Lack of knowledge about the meaning and process of patient transition leads to a lack of proper planning of patient needs management during the transition period. One way of learning more about transitions is through concept analysis. Concept analysis is a systematic investigation of everything that is known about a concept to delineate the critical attributes of the concept[10]. Although the theoretical definitions currently offered for transition care by multidisciplinary stakeholders are relevant and emphasize the importance of interprofessional practice, there is some ambiguity about the health care provider’s role on the interprofessional transition care team. This ambiguity has created an opportunity to define the concept of transition care within the

content intensive care unit, health care setting, or country. Clarification of transition care as a theoretical concept, including its necessary antecedents, would be useful for the development of effective health care providers education and facilitate the ability to measure and evaluate performance of transition care. A conceptual model of transition care could also be a useful resource and framework for educators, researchers, and practitioners.

## **2-Determining the aim of analysis**

While being aware of the attributes of the concept of transition, the clinical nurses, and nursing managers can act as facilitators of the transition of patients and improve the outcome of this process[3]. A clear definition of the concept of transition will resolve many of the problems and complications such as Inadequate continuity of care, Poor coordination of care and communication among health care caused by improper implementation of this process. It can also be the basis for formulating strategies, implementing and evaluating clinical outcomes in providing care. There is a crucial role for experienced nurses at the bedside to assist developing nursing care to improve outcome. there is an important difference between having knowledge and having understanding.

**3-Identifying the uses of this concept**Transition, originated from the Latin word “transire”, is passage from one condition, action or place to another[4]. The Oxford English Dictionary defines transition as 1. Passing or moving from one state, action or location to another, 2. Passing from one stage to the next evolutionary stage; and 3. Passing from a state of thought or speech to another state[12]. The phenomenon of transition is the process people undergo when they respond to changes. Although there is no unified acceptable definition for transition, but two theoretical views have attempted to describe this concept. The first is the evolutionary view, and according to this view, the transition has occurred through evolutionary periods of life and leads to the acquisition of new roles. The other view sees the transition in life events as moving from one fixed point to another, which causes imbalance. Of course, both views believe that human responses to the process of transition are complex and transition is a crisis-provoking period[13]. This concept is always a change or movement in a particular direction and at different levels of individual, family, group, organization, or even society. Transition is also defined as an overflowing and unpredictable stage[14]. Van Gennep was one of the first to mention this concept in anthropology and explained that the person involved in the transition process experiences three stages of separation, passage and incorporation[13]. Then, Mellis defined the term transition in nursing literature and defined the transition as passage or movement from one state, condition or place to another, and according to this definition, the transition consists of three stages of entry, passage, and exit that occur over time. Mellis introduced the transition as a central concept in nursing and mentioned the ability to facilitate the transition to health and well-being as one of important tasks of nurses. The concept of transition provides a key, which makes interpretation of the person's interactions, environment, and impact on health possible[7, 13]. The definition of transition changes according to the discipline on which it focuses. However, the most agreeable definition of transition is the passage of a change. In some texts, the term transition is a process of change in the stages of life's evolution or changes in health or social status, instead of people's response to the process of change. While transition is not just a synonym for

“change”, the transition involves a person's psychosocial process for adapting to the changes or disruptions in the events. A common definition that has been accepted in health sciences. Passing through a stage of life, condition or state to another, refers both to the process and the outcome, which is the result of interaction between the individual and the environment, and may even involve more than one person. It occurs in different fields and situations, and includes attributes such as process, disconnectedness, perception, patterns and response[2]. There are four types of transitions in the review of texts, including evolutionary, situational, disease-health and organizational transition, and these transitions occur at all levels: social, organizational, familial, and individual. Family and individual levels are the main concern of nurses and health care providers and transition in this level may occur as disease-health, identity, role, communication, abilities and behavioral patterns[8].

#### **4- Defining Attributes of the concept**

Attributes are characteristics that are frequently seen in literature reviews and help define the phenomenon. The definition of attributes in Walker and Avant concept analysis model is the heart of concept analysis[10]. Defining attributes of transition from ICU repeatedly in the literature surveyed. These key attributes will now be explored in more detail.

- **Critical points and events, disturb normal life**
- **passage of change, instability and un-anticipated changes**
- **Multiple factor and Multiple needs**
- **Inadequate continuity of care**
- **Poor coordination of care and communication among health care providers, patients and families**
- **Awareness**
- **Engagement**
- **Adaptation**

**Critical points and events, disturb normal life** : Within the context of an intensive care unit(ICU), several transition processes can be observed. The majority of patients are admitted to an ICU because of an urgent medical situation, needing high-level medical support of vital functions to keep the patient alive[15]. patient and their families may initially experience emotional distress due to the complicated life-supporting and monitoring devices and background noises encountered in intensive care units(ICUs). [16, 17]. Experiencing critical illness and requiring admission to an ICU can be extremely frightening and traumatic, causing distress and disorder in the life of the individual involved and their relatives[18]. Treatment within an intensive care unit (ICU) is stressful for patients and can cause long term physical and psychological problems[19]. Patients being considered for transfer from ICU to the acute medical ward have very complex health situations and multiple comorbidities[20].

**passage of change, instability and un-anticipated changes:** The patients' underlying pathology and physiological changes may be treated and managed until their condition stabilises or they recover[4]. they

are transitioning from high technological units to less acute environments, and many interprofessional providers are involved in exchanges of information and responsibility. A change or movement on a specific path and at different levels of an individual, family, group, organization or even community [2, 8, 21]. Patients transferring from an intensive care unit (ICU) to a general ward are particularly vulnerable to preventable harm due to the high volume of complex information to be communicated toward staff and the transition to reduced monitoring[22]. Transitions in patient care are characterized by the movement of people and information between healthcare providers and care settings[23]. Cumulatively, these changes in environment, care, relationships, information and independence have been reported to place patients and their families at risk of transfer anxiety or relocation stress[24].

**Multiple factor, Multiple needs and multiple professionals:** complex needs requiring multi-professional and inter specialty collaborations[25] One key barrier to addressing these problems is the lack of evidence-based, patient centered guidelines that equip interdisciplinary care teams to develop and execute care plans meeting patients' medical, social, and rehabilitation needs after critical illness[26]. Choi(2018) findings support that family caregivers need information and skills to help deal with patients' care needs, pace between expectations and reality, and practice better self-care[27]. Because of the unique challenges faced during each stage, patient and family needs vary significantly throughout their trajectory. Each transition is unique to the patient and is influenced by patient's and family's past experiences as well as present situation and interventions[20] The causes of readmissions are complex and multifactorial Some causes include, but are not limited to, adverse effects of medication, insufficient follow-up, premature discharge, limited support after discharge, and inadequate communication between hospital and community clinicians[28].

**Inadequate continuity of care:** Recently, professional caregivers in health-related fields have become aware of major issues in the quality of people's lives and continuity of care post discharge from intensive care unit[16]. the failure to have continuity of care during multiple transitions can lead to medical errors, miscommunication, and care that conflicts with the wishes of the patient and family. Care providers can facilitate transitions and the continuity of care by providing guidance and ensuring that the right level of care is provided[29]. Promoting continuity of care and preventing complications during recovery from acute illness requires that patient follow up and assessments continue beyond the acute phase of an illness[30].

**Poor coordination of care and communication among health care providers, patients and families:** When a patient transitions from the hospital setting to another health care setting, coordination and communication among providers and patients is crucial to preventing adverse outcomes[29]. Contributing factors include breakdown in communication, suboptimal handover processes and the lack of appropriate knowledge and skills of ward staff[31]. Poor communication with family can have disastrous effects on the transition. Communication gaps among team members also contribute to poor transitions. Miscommunication within the interdisciplinary team often leads to unrealistic expectations on the part of the family, which creates conflicts between the family and the members of the various treating teams. [20]

**Awareness:** Awareness is related to knowledge, perception and recognition of a transition experience that influences the individual's response. [2, 11, 13, 32]. There is also no standard for sharing the information on the normal ward and no single point of contact for inquiries in the ICU[33]. Participants felt that they needed information about what had happened to them and what to expect during their recovery[19]. However, the effectiveness and efficiency of information flow between clinicians is dependent on the clinicians' activities and workflow[34].

**Engagement:** Level of awareness and conditions and patient's individual situation (beliefs, attitudes, socioeconomic status, readiness and knowledge), and environmental situations (communication status and community support) affect the level of participation in the transition[2, 8, 14, 32].

**Adaptation:** A process that dynamically occurs over time (Process indicators include feeling connected, allowed to interact and interacting, being situated, developing confidence and coping)[2, 8, 14, 16]. Before transition and after transition to adapt to changes continues [2, 4, 21].

## 5- Model case identification

Another useful strategy for analyzing an abstract concept is to provide an example of the model. As Walker and Avant state, the model case is an example that has all the defining properties of the concept. In fact, it is a mere example of the concept being analyzed[35]. One of the best practices in a good analysis of finding the case or instance is an example of the studied concept. Such an example should be chosen quite clearly and must have all the to be specified[36].

The following example demonstrates a model case and includes all defining attributes (Critical points and events, disturb normal life, passage of change, instability and un-anticipated changes, Multiple factor, Multiple needs and multiple professionals, Inadequate continuity of care, Poor coordination of care and communication among health care providers, patients and families, Awareness , Engagement , Adaptation)

In reviewing patient transfer from ICU to ward, "Patient A is a 65-year-old woman hospitalized in intensive care unit after heart surgery. After 24 hours mechanical ventilation and 3 days of stay in the ICU and the initial assessment showed that she was an appropriate candidate for a transfer. In this particular situation, some concerns were raised by both the patient and their family. The patient states that: the ICU environment was excellent. The nurses watched over everything. Now the wound is open and swollen. My caregiver is my sister. She must always refer to the nurses and ask them what to do and what not to do. If or got to tell my doctor that I am very worried. They had received some conflicting messages from the different treating teams and wanted clarification. When the patient is transferred, they should provide the necessary instructions so that the patient know how to express the pain or ask questions. This way, the patient is confused"

This model case demonstrates all the defining attributes of the concept transitin from ICU, The nature of the critical illness, shock of the unplanned admission to the ICU, and the amount time required from

identifying the deterioration of the patient's health status to the actual ICU admission are all factors that can increase anxiety. which involves moving away from disease toward health, but the patient is facing uncertainty and ambiguity, is still concerned about the site of his/her surgical wound and his/her health. There is also need for a series of changes in his/her life to adapt to these conditions and gain complete recovery. A combination of these will affect the patient's and family's coping mechanisms and potentially increase the risk of posttraumatic stress disorder. This patient experiences disease-health transition, change of place of care and change of caregivers and the patient needs to be ready. The ICU environment, with its noise, lights, alarms, and technology, can also exacerbate their fear and anxiety levels. Separation from the ICU environment and changing the place of care and care providers requires the compatibility of patient and patient's family with these changes. In this period, there is need for education, awareness and support, and the patient is worried because of the lack of training and follow up. They often feel hope associated with improved health, and yet, there is fear of an eventual deterioration Increase in the level of awareness increases the participation of the patient and his/her family. The transition is usually stressful, and this patient also has concerns and confusion regarding the treatment process. Lack of correct information leads to stress, anxiety and uncertainty through which everyone can fail the transition process. The transitional phase is influenced by the preparation of both the patient and family before transfer, To enter the adaptation phase, the patient and the family must trust the receiving team. Collaboration between the interdisciplinary team members and the patient and their family is essential for developing trust. Rehabilitation and discharge planning are among the key elements in the adaptation phase.

## **6- Identification of additional models (borderline case, related case, contrary case)**

The borderline model is a case that has some of the (not all of them) of the analyzed concept[10]. Most of the defining attributes are present in the following case, but Engagement and Adaptation is absent. Mr x. young man with a decreased level of consciousness and lead to 6-month ICU stay that due to committing suicide with drug. After healing and taking antidotes, the patient has gained his alertness and health. But considering the intention to commit suicide, he/she is not happy this event and does not cooperate with the treatment team in continuing the treatment and being transferred to the ward. the initial assessment was made with the interdisciplinary team and challenges for transfer were identified. This patient is also experiencing a situational and disease-health transition, and most of the of transition such as being process, change in health status, anxiety, the stress caused by change of care location, and awareness of change. However, due to the patient's intention for self-harm, he/she does not have the desire to adapt, recover and return to health and does not have active participation in the transition process and does not cooperate with the treatment team. The patient's care plan was extremely complex. he had a detailed rehabilitation program. Thus, caregivers have been aware of the effects of transition on every patient and plan their emotional support and care according to their emotional and physical needs and we probably need to get help from a psychologist to continue the care.

### **A related case**

It lacks the defined of the concept, but may still be similar to the meaning of the analyzed concept and this similarity often causes confusion with the concept under study[10]. The transfer of the patient from the ICU to the Radiology unit is associated with physical changes of the location, but it has none of the characteristics and of the transition. In this transfer, it deals only with physical aspects and it is not a process. The interactions that occur are not considered and may be mistaken with the transition process. One of the main of transition is awareness, readiness and participation of the patient in the transition process, while only the patient's physical condition is considered in transfer.

"Mrs X was 55 years old. He was admitted to the ICU with a hypovolemic shock, The initial assessment of the patient's health situation by the CNS showed that he was an appropriate

candidate for a transfer to Radiology unit. The patient was successfully transferred to the radiology unit and comeback again."

### **A contrary case**

It does not include any of the defining attributes of the concept and its introduction indicates that the concept is not analyzed and this difference is so obvious and clear that most people who see it say with confidence that this is not an example of our concept. Chin and Cramer argue that this item does not add any new information for analysis[10]. The patient C is a patient who was admitted to the emergency department with cardiac arrest and after the initial actions, was transferred to the ICU with unstable condition. However, despite the efforts of the patient's treatment team, he/she has not recovered and after the process of recovery and failure, the patient was transferred to the hospital morgue. The proposed model does not have any of the defining attributes of the concept of transition, and it is easily found that this is not a real model for the concept of transition.

### **7- Antecedents**

Antecedents are events that must be revealed before the concept emerges[10]. They are prerequisites for the concept under study and contribute to the clarity of the concept[7]. This analysis identified antecedents for the concept of transition for patients in the ICU: According to a review of the texts, transitions are a complex process, multiple antecedent events may occur simultaneously during a given period. Health- illness events that might occur before the onset of a transition include: Shift in the care of the patient from healthcare providers to the family, Shift from acute care to intermediate care. Situational events that precede transition are often unexpected and untimely. Role changes, disturbances in family routines. Situational transition such as move through different levels of care, changes in the extent of monitoring without adequate details provided [13].

an unstable state in the physical, psychological, and social conditions created by a change in health status, position, role, and identity[32]. Social support, socio-economic status, psychosocial status, community support, and the demographic characteristics of the individual who experiences the transition,

such as age, gender, personality type, communication skills, adaptive methods, attitudes and beliefs, religious beliefs, knowledge and skills affect the experience of transition in an individual[2, 4, 7].

## **8- Consequence**

These are the events that occur after the concept emerges[10]. Chick and Mellis state that transition consequences are inherently positive and are used to make adaptation to change, but others say that the transitions lead to both growth and decline. Transition consequences may occur at any point in the transition process, because the transition is both process and outcome[32]. Positive consequences include less anxiety and emotional problems, finding positive perceptions of change, independence, personal maturity, empowerment, higher self-confidence, while negative consequences include excessive anxiety, separation, incompetence, loneliness, helplessness, confusion, inappropriate, tension, ambiguity of role, motivation reduction, decrease of efficiency, withdrawal and isolation[2, 4, 5].

**Table 3:** Attribute, Antecedents and Consequences of the concept of transition in the transition of patients from the intensive care unit in the health literature review

Title	Author	Attribute	Antecedent	Consequence
Transition: a literature review	Kralik2006	*Over time Entails chang* *passage of change Adaptation*		
Transition: A Conceptual Analysis in the Context of Siblings of Children With Cancer	Wilkins 2006	*Process *Movement *Disequilibrium *Multiple factors *Multiple professionals Change*	*Health-illness events *Developmental events *Situational events	*Process indicators *Outcome indicators
From the ICU to the ward: cross-checking of the physician's transfer report by intensive care nurses	Perren2008			*Potential error
The care transitions intervention: translating from efficacy to effectiveness	Voss, Rachel2011			*Improve health outcomes *Decrease health care costs
Patients' transition in the intensive care units: concept analysis	Ludin2013	*Awareness *Disconnectedness *Movement * Over time *Change		*Anxiety *Relocation stress *Post-traumatic stress *Disorder *fragmented care
Patients' and	Cullinane2013	*Poor	*Information	*Relocation

relatives' experiences of transfer from intensive care unit to wards		communication *Poor Information sharing	and communication *Safety and security *Needs of relatives	stress *Physiologic and/or psychological *Disturbances
Intensive care survivors' experiences of ward-based care: Meleis' theory of nursing transitions and role development among critical care outreach services	Ramsay2014	*Awareness Engagement* *Change and difference *Time span *Critical points and events	*Disconnection *Developing *Confidence and coping	*Adverse events *Deterioration or death
Development and Effects of a Transition Nursing Program for Patients and Family Caregivers at a Neurological ICU in Korea	Yun2015		*Transfer to ward readiness *Personal status *Knowledge *Coping ability *Expected support	*Uncertainty and stress
Transition: A concept of significance to nursing and health care professionals	Al-Yateem2015	*Instability and un-anticipated changes *Disturbing to the normal life *Multiple needs *Multiple sources of distress	*Moving to a new hospital *Change in treatment regimen	
A Concept Analysis of Vulnerability During Transitions	Cline, Daniel D 2016	*Inadequate continuity of care *Poor coordination of care and	*use of multiple medications *fragmentation of the	*Readmissions to previous or new care settings

		communication among health care providers, patients and families	health care system	*potential for negative health outcomes
Family caregivers' experiences during transitions occurring within an acute care facility	Bristol2016	*Multiple services needed in preparing patients for discharge  *Difficulties in following aftercare instructions  *Unclear roles & responsibilities  *Practical information, education, training	*Relationships & interactions  *Time pressure	*Feeling ignored, forgotten, and unimportant  *Lack of attention to basic needs
Critical care transition programs and the risk of readmission or death after discharge from ICU	Stelfox2016	*Multiple factors  *Multiple professionals	*Complex care  *Reduction in monitoring capacity  *Communication failures	*Improve the safety of patient  *Readmission to ICU or mortality
The impact of critical care transition programs on outcomes after intensive care unit (ICU) discharge: can we get there from here?	Goulart2016	*Multidisciplinary team		*Prolonged hospitalization  *Higher costs  *Higher degrees of disability  *More emotional stress  *Clinical deterioration
Nurses' experience of the transfer of ICU patients to general wards: A great responsibility and a huge challenge	Enger2018	*Interdisciplinary cooperation	*expertise and skills  *available resources	*Anxiety, panic and lack of control  *Patient safety  *Uncertainty

\*organisational failings

\*Lack of sufficient knowledge

\*Supervision and clinicians failing

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Improving transitions in care from intensive care units: Development

Jeanna Parsons Leigh2020

\*Complex needs

\*Multi-professional

\*Inter specialty

\*Collaborations

\*Breaks in communication

\*Implications

on the quality

\*Cost of patient care

and pilot testing of an electronic communication tool for

healthcare providers

**9- Empirical reference** According to Walker and Avant, the last step in analyzing the concept of empirical references is performed for the main of the concept, which may help clarify the operational concept. Empirical references are recognizable of the concept whose emergence is a sign of self-concept[37] and the purpose of defining them is to facilitate the measurement and identification of the concept and contribute to the production of research tools[10]. In reviewing texts, there is no specific tool that evaluates the transition. There are several questionnaires and tools for transition such as Weiss & Piacentini's patient's readiness for transition[38] or measurements of transition response patterns such as relocation stress[18] anxiety[39] and nursing interventions for the transition process[3, 40, 41] and evaluation of the Consequences of the transition process, such as mortality and re-admission, patient safety[42]. Although there is consensus on the importance of transfer and transition, the empirical evidence to support a wide implementation is limited[15].

## Discussion

The Walker and Avant's model and methodology were used to clarify the concept of transition among ICU patients and provide a more specific description of the concept by presenting model case, borderline case, related case, and contrary case. Admission to ICU is often a short-term and critical period, but very significant experience in ICU patients and has short-term and long-term effects on patients' recovery process. These patients experience several transitions in a health care system[11]. After the transition from the ICU, the incidence of disorders such as post-traumatic stress disorder (PTSD), anxiety and depression has been reported in these patients[43].

In general, review of the literature emphasizes the support of the health care system to cover the needs of the course of transition in these patients. Though studies show the nature of this multidimensional and multi-professional process, providing these services and care is beyond the nursing field. However, nurses can make significant contributions to facilitating the process and can affect the long-term and short-term outcomes of the treatment[11, 44]. The care needs to be adapted to the needs of the patient and his/her family[45]. Therefore, proper planning and care interventions are necessary in response to the transition of patients[32, 46, 47]. In conclusion, coaching of patients through transition is a central concept of nursing. Nurses are challenged to consider all significant transitions in patients, and not merely health/illness transition, which is most dominant. This challenge is even bigger for intensive care nurses, because transitions are an understudied area in critical care nursing[15].

Studies show increased medical errors and interruption of care due to lack of proper planning during the course of the transition[30]. Poor transitions often result in unnecessary adverse patient outcomes and additional healthcare spending[48]. Care transitions refer to a set of actions designed to ensure the coordination and continuation of appropriate healthcare provision as a patient transfers between different levels of care in the same clinical setting or different locations[48]. The interdisciplinary team to develop the best possible approach to ensure patient's safety during transfer[20].

According to the analyses, transition is an event or a critical situation that occurs as a process over time and occurs through separation and relocation, change or movement in a particular direction and at different individual, family, group, organization, or even the community levels, and the way an individual responds to the transition depends on the level of awareness, the patient's individual condition (beliefs, attitudes, socio-economic status, and patient's readiness) and the environmental conditions (communication status and community support). Based on the review of texts, antecedent of transition is an unstable state of health in physical, psychological, and social situations that is caused by changes in health status, position, role, and identity. Using the attributes and antecedents appearing in this conceptual analysis, nurses can observe and assess the aspects of the transition in patients and help provide positive consequences in patients by providing appropriate situations. In addition, by reaching a relative agreement in the concept of transition from the ICU, they would have the same understanding of the application of this concept in health care settings.

Compared with previous studies, this study provides a more complete operational concept of the transition in patients admitted to the ICU, and nurses and health team members should pay attention to their care and assessment and this can also be the basis for designing more complete tools in this area. The transition process is affected by various factors and it is necessary that health care system managers, policymakers and health care personnel, especially nurses be informed and focus on providing care to patients. The results of the present study provide healthcare providers with an overview of the transition process, which can be effective in promoting the therapeutic outcomes of these patients and reduce unwanted complications and unnecessary works and reduce the costs of re-admission.

## Conclusion

Failure to understand the proper meanings and components of the patient's transition may lead to confusion about what needs to be done in response to patient's experiences during the course of transition. While transition is a unique event, it differs from the process of discharge and case management. Transitional care is aimed at improving the outcome and providing services at a specific time based on the individual experience of each person's transition. Therefore, to properly manage the patient's needs and improve the quality of care and improve treatment outcomes, it is necessary to recognize this concept correctly.

Concept analysis is the first step in improving nurses' perception of transition in ICU patients, which could be a framework for developing nursing interventions to improve patients' transition from the ICU and furthermore, it helps understand the patient and his/her family's needs during transition, how they experience the transition and the way they encounter it. As Walker and Avant point out, conceptual analysis is experimental because of its nature, and therefore, it may lead to new questions while answering several questions. The importance of gaining insight into transfers of complex-care patients across the lifespan and between settings is a critical and timely policy issue. It is suggested that future research focus on nurses' perceptions of transition and their outcomes.

## **Limitations**

There are limitations associated with our study process. First, the review of literature was not a systematic review, rather it was a targeted review that was designed by researchers with expertise in performance measures and care transitions

## **Declarations**

### **Ethical Approval and Consent to participate**

Not applicable

### **Consent for publication**

Not applicable

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### **Availability of data and materials**

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

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All authors contributed to collecting and discussing ideas and writing the manuscript. All authors read and approved the final manuscript.

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## Competing interests

The authors declare that they have no competing interests.

## Abbreviations

ICU: Intensive care unit

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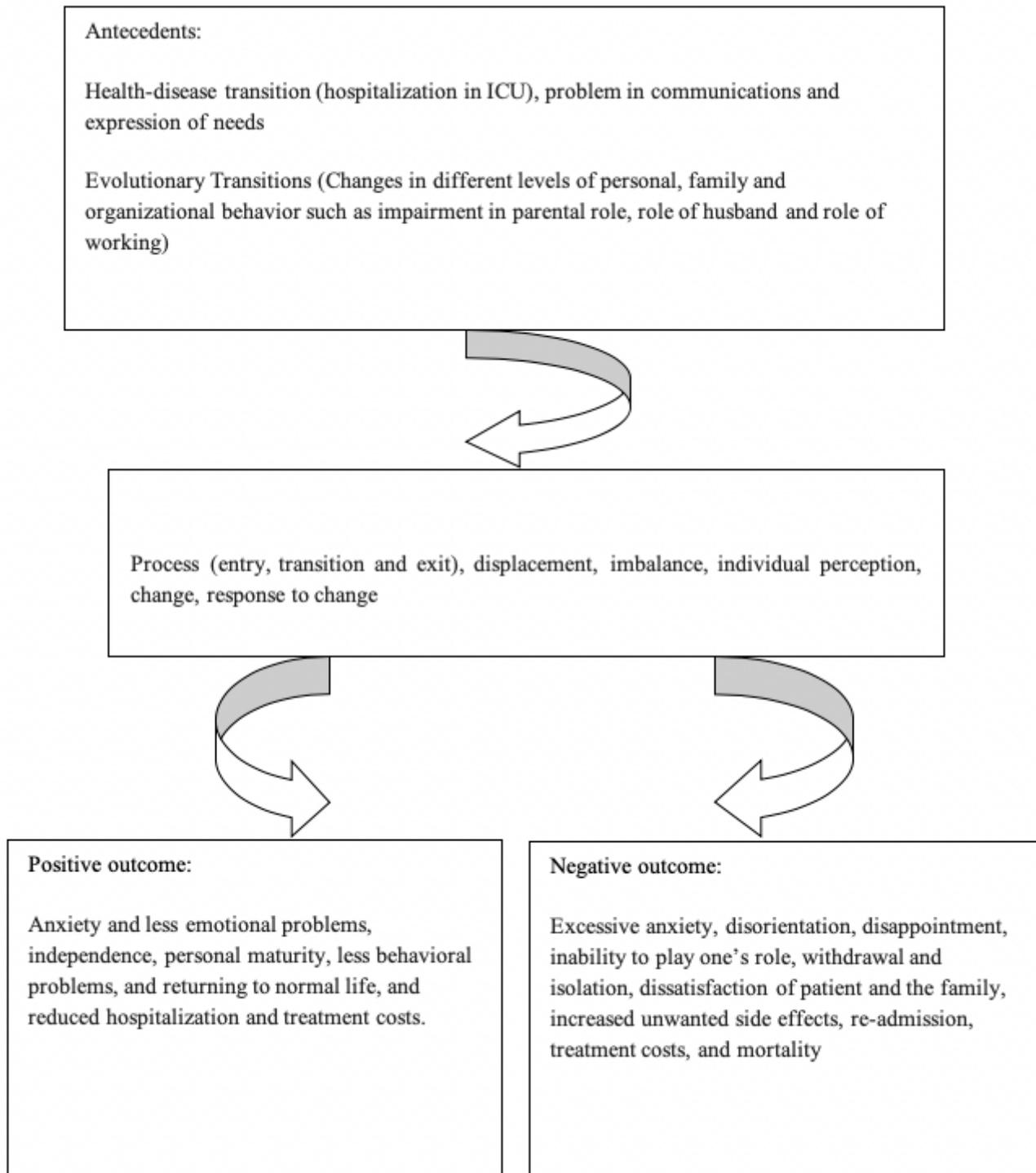
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## Figures



**Figure 1**

Table 4: Antecedents and Consequences of the concept of transition in the transition of patients from the intensive care unit