

SHORT COMMUNICATION

## Transitions theory as a framework for rehabilitation nursing for people with tracheostomy during ventilatory weaning in intensive care

## La teoría de las transiciones como marco para la enfermería de rehabilitación de personas con traqueotomía durante el destete ventilatorio en cuidados intensivos

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### ABSTRACT

**Introduction:** ventilatory weaning involves moving from invasive mechanical ventilation to spontaneous ventilation. In people with tracheostomies, this process causes physical vulnerabilities (reduced respiratory function, risk of infections), psychological vulnerabilities (anxiety due to the inability to vocalize) and social vulnerabilities (isolation in the ICU, interruption of roles).

**Objective:** to analyze the role of rehabilitation nursing care in promoting ventilatory weaning in tracheostomized individuals, through the lens of Meleis' Transitions Theory.

**Method:** theoretical review based on Meleis' Transitions Theory and recent studies, integrating evidence on the vulnerability of the person with a tracheostomy, in the process of weaning, respiratory rehabilitation strategies, mobilization, emotional support and health education.

**Results:** the Transitions Theory guides the rehabilitation nurse towards a personalized assessment of the physical, cognitive, social and cultural conditions of the person with a tracheostomy; education adapted to the level of literacy, with respiratory exercise training; early mobilization and functional training to reduce atrophy and strengthen respiratory muscles; psychosocial and family support, promoting adequate communication, the presence of family members and coping strategies; monitoring of transition indicators, allowing dynamic adjustments to the rehabilitation nursing care plan.

**Conclusions:** the application of the Transitions Theory enables rehabilitation nurses to plan and implement interventions centered on the person with a tracheostomy and their family, valuing vulnerability as an expression of quality of life. By monitoring process and outcome indicators, nurses anticipate barriers, strengthen trust and promote coping strategies, helping to make ventilator weaning a healthy and transformative transition.

**Keywords:** Rehabilitation Nursing; Nursing Theory; Intensive Care Units; Ventilator Weaning; Tracheostomy.

### RESUMEN

**Introducción:** el destete ventilatorio implica la transición de la ventilación mecánica invasiva a la ventilación espontánea. En personas con traqueotomía, este proceso aumenta la vulnerabilidad física (disminución de

la función respiratoria, riesgo de infecciones), psicológica (ansiedad por la incapacidad de vocalizar) y social (aislamiento en la UCI, interrupción de roles).

**Objetivo:** analizar el rol de los cuidados de enfermería de rehabilitación en la promoción del destete ventilatorio en individuos traqueotomizados, a través de la perspectiva de la Teoría de Transiciones de Meleis.

**Método:** revisión teórica basada en la Teoría de las Transiciones de Meleis y estudios recientes, que integra la evidencia sobre la vulnerabilidad de las personas con traqueostomía en el proceso de destete, las estrategias de rehabilitación respiratoria, la movilización, el apoyo emocional y la educación para la salud.

**Resultados:** la Teoría de las Transiciones guía al enfermero de rehabilitación hacia una evaluación personalizada de las condiciones físicas, cognitivas, sociales y culturales de la persona con traqueostomía; educación adaptada al nivel de alfabetización, con entrenamiento en ejercicios respiratorios; movilización temprana y entrenamiento funcional para reducir la atrofia y fortalecer la musculatura respiratoria; apoyo psicosocial y familiar, promoviendo una comunicación adecuada, la presencia de familiares y estrategias de afrontamiento; y monitoreo de indicadores de transición, lo que permite ajustes dinámicos en el plan de cuidados de enfermería de rehabilitación.

**Conclusiones:** la aplicación de la Teoría de la Transición permite al personal de enfermería de rehabilitación planificar e implementar intervenciones centradas en la persona con traqueostomía y su familia, valorando la vulnerabilidad como expresión de calidad de vida. Mediante el monitoreo de indicadores de proceso y resultado, el personal de enfermería anticipa las barreras, refuerza la confianza y promueve estrategias de afrontamiento, contribuyendo a una transición saludable y transformadora de la desconexión del ventilador.

**Palabras clave:** Enfermería de Rehabilitación; Teoría de Enfermería; Unidades de Cuidados Intensivos; Retirada del Ventilador; Traqueotomía.

## INTRODUCTION

Ventilatory weaning is a process of transition from artificial ventilation to spontaneous ventilation in people who remain on invasive mechanical ventilation for more than 24 hours.<sup>(1,2)</sup> Its success is achieved by maintaining spontaneous ventilation for at least 48 hours after stopping artificial ventilation.<sup>(3)</sup> Ventilatory weaning in people with tracheostomies increases several dimensions of vulnerability.<sup>(4,5,6)</sup> The physical and muscular dimension with reduced lung compliance and respiratory function, makes the person more susceptible to aspiration and lung infections, increasing the risk of failure of the weaning process;<sup>(4)</sup> the psychological dimension, in which the inability to vocalize generates anxiety, frustration and feelings of incomprehension, an emotional impact that can compromise attempts at spontaneous breathing;<sup>(5)</sup> and the social dimension, in which the social isolation caused by being in an intensive care unit (ICU) and the interruption of family and/or professional roles reinforces the feeling of exclusion, compromising the motivation to wean.<sup>(6)</sup> Considering a person's vulnerability as a daily quality of life discovered through an understanding of people's experiences and responses in times of transition,<sup>(7)</sup> Transitions Theory provides a theoretical framework for the Rehabilitation Nurse (RN) in the context of intensive care, in which the focus of nursing care is the transition processes experienced by each person throughout their life.<sup>(7)</sup> This theory presupposes a prior assessment of the person's response to vulnerabilities, planning and intentional intervention, in which the RN is a facilitator in the transition process, allowing it to focus therapeutic nursing interventions on the person and family throughout ventilator weaning, valuing vulnerability as a daily expression of quality of life and taking into account their experiences and responses at each stage of change.<sup>(8)</sup>

Considering that invasive ventilation is a complex situation involving significant vulnerability, in which the individual undergoes transitional processes with human responses that require nursing interventions to support this transition, Meleis' Transition Theory<sup>(7)</sup> can assist nurses in analyzing this highly vulnerable condition. It enables the development of nursing interventions aimed at facilitating the adjustment to the new health condition and achieving outcomes in terms of health, well-being, and satisfaction.

The aim of this article is to analyze the role of rehabilitation nursing care in promoting ventilatory weaning in tracheostomized individuals, through the lens of Meleis' Transitions Theory.

## DEVELOPMENT

The Transitions Theory, developed by Afaf Meleis, is a fundamental theoretical framework for nursing, as it focuses on understanding the changes experienced by individuals and their families, whether they are related to health, stages of development or situational and organizational changes.<sup>(7)</sup> This middle-range theory recognizes the conceptions of Nursing, Person, Health and Environment and, based on the paradigm of transformation, values the person as a whole, in interaction with the environment, and nursing care is directed towards health,

as the person defines it.<sup>(9)</sup>

In the context of intensive care, a tracheostomy marks the beginning of a complex health-disease transition for the person and their family,<sup>(7)</sup> as can be seen in figure 1. The ventilatory dependency that sets in alters the person's autonomy, communication and self-image.<sup>(6)</sup> Moving into the weaning phase represents a critical moment of transition in a sequential pattern,<sup>(7)</sup> requiring adaptation to the person and the RN, a multidimensional and structured response, encompassing specific skills to maximize respiratory function, and also taking into account the psychological, social and educational dimensions of the rehabilitation process.<sup>(11)</sup> The uniqueness of the transition process also implies that the RN considers the multiple, simultaneous and diverse transitions experienced by the person with a tracheostomy in the process of weaning, from admission to the ICU to the transition to rehabilitation care, among others.<sup>(7,12)</sup>

Transitions involve a complex and multidimensional process, supported by essential and interrelated properties: awareness, engagement, change and difference, time span, and critical points and events.<sup>(7)</sup> Awareness involves the person with a tracheostomy in the process of weaning recognizing the changes they will experience, whether it's adapting to tracheal support, possible changes in voice and swallowing, or the need for breathing exercises.<sup>(3,5,6)</sup>

The health education that the RN receives about how the tracheostomy works, the risks and benefits of weaning, secretion management and warning signs of complications, is crucial to their rehabilitation process and must be adapted to the person's level of understanding. The person's level of involvement in the transition process is influenced by their level of awareness, which translates into active participation in respiratory rehabilitation during assisted coughing, lung expansion exercises, swallowing training, among others.<sup>(7,13,14)</sup>

The RN motivates the person to participate and by giving continuous feedback, taking into account their comfort and tolerance, maximizes their sense of efficacy as a person, empowering them for self-care and autonomy.<sup>(8)</sup>

In the nursing discipline, the person is defined as an active agent whose perceptions and meanings about health and illness shape and are shaped by personal and environmental conditions during the transition process. In order for the RN to understand the experiences of the person with a tracheostomy in the process of weaning, it is essential to identify the factors that facilitate and inhibit a healthy transition.<sup>(7,15,16)</sup> On personal conditions (meanings, beliefs, cultural attitudes, socio-economic level, preparation and knowledge),<sup>(7)</sup> the RN should identify personal meanings and expectations regarding the tracheostomy and ventilator weaning.

Educational interventions on breathing exercises, tailored to the individual, increase knowledge and consequently improve decision-making and autonomy.<sup>(8,10)</sup> Regarding the community conditions in which the person lives (support, information, advice, role models),<sup>(7)</sup> the RN must identify the existence of family support or support from friends, which can facilitate or hinder the weaning process, promoting family involvement, adequate and adjusted information for the person and family.

About social conditions (marginalization, stigmas and socially defined roles),<sup>(7)</sup> It is important to provide the RN with interventions to train breathing, swallowing, phonation valves, as well as communication techniques to reinforce the person's autonomy, minimizing the feeling of social exclusion.<sup>(10,17)</sup> By involving the person with a tracheostomy in shared decision-making<sup>(19)</sup> about the pace of weaning and rehabilitation goals, the RN reinforces the person's socially active role in their rehabilitation process.<sup>(8,10)</sup>

In order to understand the transition process, taking into account the person's experience, it is necessary to identify patterns of response, process and result, which support the evaluation of the RN.<sup>(7,15,16)</sup> With regard to process indicators, the RN should recognize whether the person with a tracheostomy feels integrated and informed about ventilator weaning, whether relationships with family, friends and the healthcare team are determining sources of support and knowledge, whether they feel cared for and situated in the ICU, identifying themselves as an active part of the weaning process, demonstrating trust in care and returning coping strategies, with a view to a healthy transition.<sup>(7,8,10,16)</sup> The outcome indicators - mastery and flexible and integrative identity - allow us to assess whether the ventilator weaning of the person with a tracheostomy was a healthy transition.<sup>(7,15)</sup>

Mastery will mean mastering the skills and behaviors needed to manage new situations<sup>(7)</sup> with regard to breathing exercises, the use of the appropriate fenestrated/phonatory valve, the ability to cough effectively, as facilitating elements in weaning and on which the NB focused in the direct provision of care and teaching.<sup>(12)</sup>

In the reformulation of identity, the recognition of the person as someone capable of managing the transition from controlled ventilation to spontaneous ventilation, through the tracheostomy, being able to change their own behavior in order to adapt both the capacity for spontaneous breathing and the capacity for swallowing and mobility. The RN facilitates this transformation by involving the person in decision-making about their care and valuing the progress made, so that the person incorporates new knowledge and behaviors experienced in the practice of care.<sup>(8)</sup>

Therapeutic nursing interventions for newborns are based on the RN's specific skills,<sup>(11)</sup> as a facilitator of transitions,<sup>(16)</sup> focusing on training the person to cope with the transition experienced and on specific

teaching and training so that the person/family can find the best coping strategies for the current situation of ventilator weaning.<sup>(8)</sup> In addition to these competences, the RN must attend to the transversal competences of specialized knowledge,<sup>(18)</sup> demonstrating in-depth knowledge in nursing, with a high level of clinical judgment and translating into specialized interventions for the human responses and life and health process of the person with a tracheostomy undergoing weaning.

Interventions should involve the person, so that they feel that the decisions are in line with their choices, what is best for them, and that they take an active part in decision-making,<sup>(19)</sup> thus underpinning a person-centered approach to care.<sup>(11,20)</sup> The anticipatory nature of the RN's preparation for the change of roles and the prevention of negative effects should be emphasized.<sup>(16)</sup>

Transition process in the ICU for weaning the person with a tracheostomy according to the Mele Transitions model

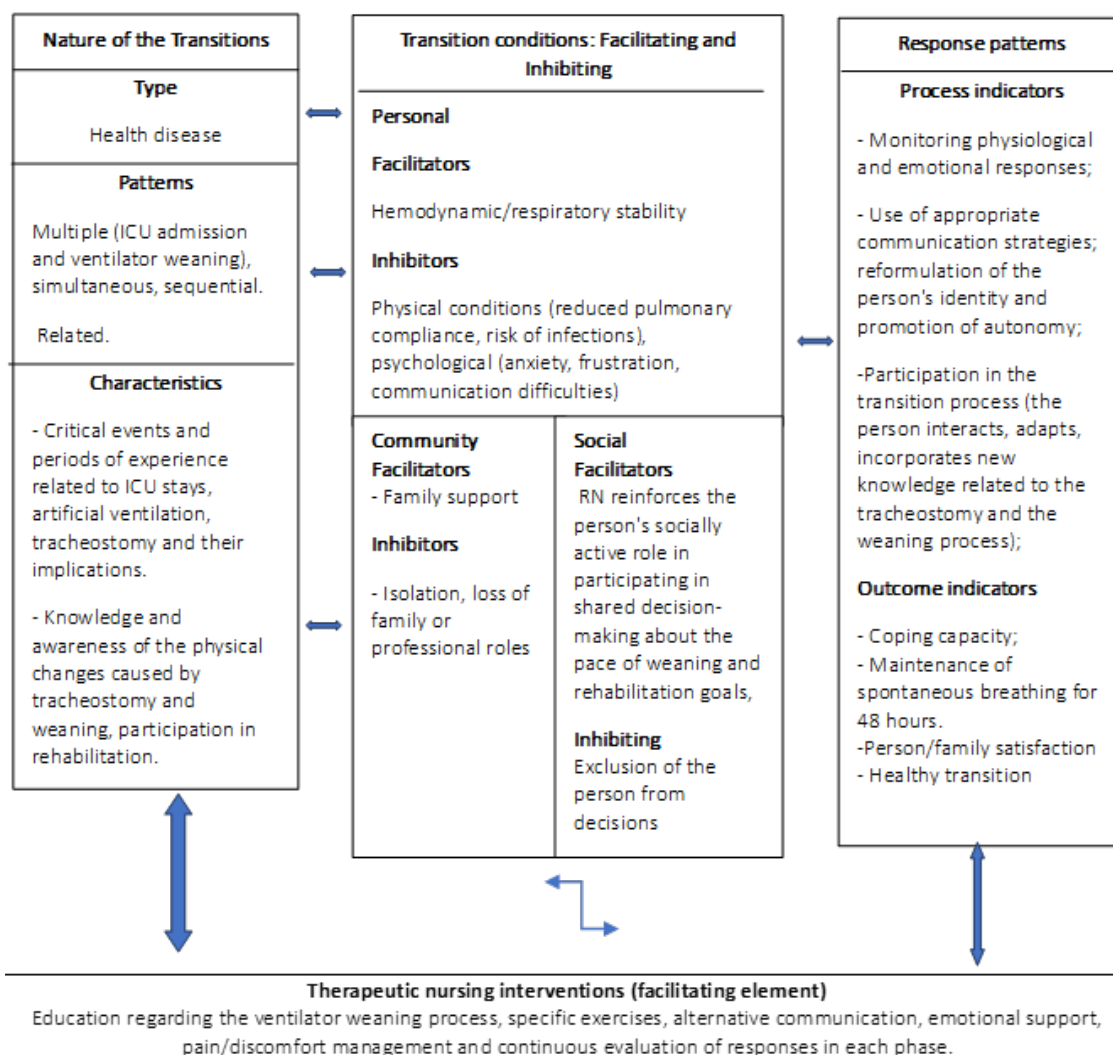


Figure 1. Transition process in the ICU for weaning the person with a tracheostomy

## CONCLUSIONS

Ventilator weaning for people with tracheostomies is a complex transition, marked by physical, psychological and social vulnerabilities. Meleis' Transitions Theory provides a theoretical framework that enables RNs to plan, implement and evaluate person- and family-centered interventions, valuing vulnerability as an expression of quality of life. The person's awareness, active involvement and gradual development of skills (mastery) are promoted through education, appropriate communication, specific exercises, while the reformulation of identity reinforces autonomy and social integration. By recognizing the personal, community and social conditions that facilitate or hinder the process, and by analysing process and outcome indicators, the RN anticipates obstacles, strengthens confidence and enhances coping strategies. In this way, they help ventilator weaning to be experienced as a healthy and transformative transition.

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