



# The Complexity of the NICU-to-Home Experience for Adolescent Mothers

## Meleis' Transitions Theory Applied

**Elizabeth Orr, MSc; Marilyn Ballantyne, PhD; Andrea Gonzalez, PhD; Susan M. Jack, PhD**

Quality care for individuals and families during periods of transition is one of the major issues facing health care systems and providers today. The transition-home from the neonatal intensive care unit (NICU) as experienced by adolescent mothers is poorly understood—placing young mothers and their infants at risk of poor outcomes following NICU discharge. Meleis' Transitions Theory offers a unique theoretical perspective for understanding this transition experience and also serves to highlight the complexity of the NICU-to-home transition for this population of young mothers that is not currently elucidated in the literature. **Key words:** *adolescent mothers, health transition, neonatal intensive care, nursing and nursing theory, transition-home, transitions theory, women's health*

**Q**UALITY TRANSITIONS from inpatient settings to the community are one of the major problems facing health systems today. High hospital readmission rates, patient and family dissatisfaction with discharge processes, and adverse events postdischarge have prompted leading academic societies of nursing and medicine to recognize the importance of successful care transitions and the need for novel patient- and family-centered approaches to ensure safe hospital-to-home

transitions.<sup>1-3</sup> However, this predominantly situational focus on the hospital-to-home transition may contribute to an incomplete understanding of the transition process, thus leading to knowledge and practice that lacks a robust or holistic view of the experience. In this article we apply Meleis' Transitions Theory,<sup>4</sup> to the example of adolescent mothers with infants admitted to and discharged home from the neonatal intensive care unit (NICU). By examining Meleis' theory and applying it to this population at risk for poor transitions posthospital discharge, we highlight the condition of multiple, intersecting, and overlapping transition experiences and emphasize the importance of a multidimensional view of transition for informing nursing policy and practice related to care transitions.

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## BACKGROUND

### Meleis' Transitions Theory

The concept of transition is a relatively universal phenomenon, and while frequently used to describe processes of change, the

### **Statement of Significance**

#### **What is known or assumed to be true, about this topic:**

- Quality transitions from inpatient settings to the community are one of the major problems facing health systems today.
- Transition is a concept central to the nursing profession with nurses facilitating and providing support to individuals, families, and communities experiencing the events, changes, and outcomes associated with transitions.
- Meleis' Transitions Theory is a middle-range nursing theory that integrates the phenomenon of transition into the nursing profession's theoretical knowledge base.

#### **What this article adds:**

- Transitions Theory is used as a framework for understanding the types, multiplicity, and complexity of transitions experienced by adolescent mothers with infants discharged home following admission to the NICU shortly after birth.
- Extending the application of Transitions Theory beyond the situational transition of hospital-to-home allows for a robust and holistic exploration of the transition experience.
- Keeping Transitions Theory at the forefront of the hospital-to-home discourse is important for building disciplinary knowledge and advancing nursing policy and practice in transitional care.

word "transition" is not simply synonymous with change. Transition most often represents the psychological processes involved in adapting to change associated with

developmental stages, alterations in health, and changes in social circumstance.<sup>1</sup> Transition is a phenomenon often triggered by critical events and changes in individuals or environments. In health care settings, nurses commonly interact with and support individuals, families, and communities experiencing the critical events associated with transitions, and as such, this concept is central to the nursing discipline. Nurses, therefore, need to be aware of the impact of transition experiences on health and well-being.<sup>2</sup> A focus on transition in the nursing profession, "acknowledges universal aspects of nursing, enhances nurses' potential in supporting emerging identities and life patterns, supports nurses' concerns about changing systems and societies, and challenges nurses to develop therapeutics supportive of positive experiences and healthy outcomes."<sup>3</sup>

Accordingly, Meleis' middle-range nursing theory, or Transitions Theory, has been utilized, and widely accepted in nursing research and practice.<sup>4</sup> Transitions theory refines the definition of transition and describes the concept's defining characteristics (see the Table for Transitions Theory concepts and contributions). The 4 types of transitions identified by Schumacher and Meleis,<sup>5</sup> developmental transitions, situational transitions, health-illness transitions, and organizational transitions, highlight the diversity of transition-related circumstances, and as these types of transitions are not mutually exclusive, the theory emphasizes the added complexity of multiple transitions occurring simultaneously.<sup>6</sup> The transition experiences of adolescent mothers with infants discharged home from the NICU serve as an example of this complexity.

### **Adolescent mothers in the NICU**

The postpartum period is a critical time for a woman and her infant. In addition to the physiologic demands associated with the weeks following childbirth, this time period is characterized by early attachment, infant growth and development, breastfeeding, and

**Table.** Meleis' Transitions Theory

Theory development	<ul style="list-style-type: none"> <li>• 3 decades of work by Meleis and colleagues</li> <li>• Extensive review of transitions literature as well as empirical testing of the developing framework<sup>2</sup></li> </ul>
Purpose	To describe, explain, and predict human experiences in various types of transitions <sup>4</sup>
Definitions and concepts	<p><i>Transition</i>—"a passage or movement from one state, condition, or place to another."<sup>5</sup></p> <p><i>Defining characteristics</i><sup>6</sup></p> <ul style="list-style-type: none"> <li>(a) process, in that transition involves a sense of movement or flow;</li> <li>(b) disconnectedness, or a disruption in the associations on which one's feelings of security depend;</li> <li>(c) perception, transition, and its attributed significances vary between persons, communities, and societies;</li> <li>(d) awareness, persons must have some awareness that change is occurring</li> </ul> <p><i>Types of transitions</i><sup>5</sup></p> <ol style="list-style-type: none"> <li>1. developmental transitions (eg, becoming a parent);</li> <li>2. situational transitions (eg, discharge from hospital);</li> <li>3. health illness transitions (eg, end of life); and</li> <li>4. organizational transitions (eg, introduction of new care technology)</li> </ol> <p><i>Transitions conditions</i><sup>4</sup>:</p> <ul style="list-style-type: none"> <li>• Factors that may facilitate or constrain the process of healthy transition</li> <li>• Examples, socioeconomic status, cultural beliefs surrounding transitions, and knowledge about transition experiences</li> </ul>
Contribution to nursing knowledge	<p><i>Theory-informed nursing research</i></p> <ul style="list-style-type: none"> <li>• Exploring transitions experiences among various contexts and populations<sup>4</sup></li> <li>• eg, discharge, relocation and care transitions; chronic conditions; hip fracture; medical complexity and end of life</li> </ul> <p><i>Theory-informed nursing interventions</i></p> <ul style="list-style-type: none"> <li>• eg, transitional care interventions, public health nursing models, and frameworks for nursing student education</li> </ul> <p><i>Exemplar references</i></p> <p>Fegran, L., Hall, E. O., Uhrenfeldt, L., Aagaard, H., &amp; Ludvigsen, M. S. (2014). Adolescents' and young adults' transition experiences when transferring from paediatric to adult care: a qualitative metasynthesis. <i>International Journal of Nursing Studies</i>, 51(1), 123-135.</p> <p>Joly, E. (2016). Integrating transition theory and bioecological theory: a theoretical perspective for nurses supporting the transition to adulthood for young people with medical complexity. <i>Journal of Advanced Nursing</i>, 72(6), 1251-1262.</p> <p>Larkin, P. J., Dierckx de Casterle, B., &amp; Schotsmans, P. (2007). Transition towards end of life in palliative care: an exploration of its meaning for advanced cancer patients in Europe. <i>Journal of Palliative Care</i>, 23(2), 69-79.</p> <p>Naylor, M. D., Shaid, E. C., Carpenter, D., Gass, B., Levine, C., Li, J., . . . Williams, M. V. (2017). Components of Comprehensive and Effective Transitional Care. <i>Journal of the American Geriatrics Society</i>, 65(6), 1119-1125.</p>

well-baby care. This is a time when health services are designed to engage new mothers in early intervention and health promotion efforts to support the optimal health, growth, and development of the infant and support the mother in developing sensitive parenting skills and adjusting to the new maternal role. Commonly, these supports may be provided through home visitation programs, well-baby primary care services, parenting groups or specialized clinic services with access to lactation consultants, mental health screening, and social service supports. Admission of an infant to the NICU interrupts and complicates this typical postpartum experience for a mother and her infant.

Infants born to adolescent mothers are at an increased risk for preterm birth, low birth weight, and congenital anomalies, making these infants more likely to require hospitalization in a NICU shortly after birth.<sup>7</sup> For adolescent mothers, admission of their infant to the NICU can exacerbate already complex circumstances that include multiple social, psychological, and economic difficulties.<sup>7-10</sup> Not only do adolescent mothers often require high need for supportive services to support optimal postpartum maternal and infant outcomes, accessing these services can be difficult due to perceived stigma, lack of trust, and programming that does not account for their contextually and developmentally unique needs.<sup>11,12</sup> Additionally, infants born to adolescent mothers also have an increased likelihood of rehospitalization and emergency department visits following discharge from the NICU,<sup>13</sup> and mothers who parent alone and/or experience more social and economic challenges are more likely to discontinue attendance at follow-up clinics focused on infant neurodevelopment, where participation post-NICU discharge is vital to optimize infant outcomes.<sup>14</sup>

The experience of transition to home following discharge from the NICU has been a topic explored within the health literature that provides an understanding of the experience from both qualitative and quantitative perspectives.<sup>15-22</sup> However, many of the

participants in these studies are significantly older than the adolescent age group and therefore application of these adult-focused findings to the adolescent population would fail to consider the unique developmental stage of the adolescent mother and the relative complexity of her pregnancy and parenting situation.

The use of theory among these studies (or lack thereof) is also a limitation of this body of literature. Where theory, and in this case Meleis' Transitions Theory, can be used to conceptualize the transition experience, establish context and lead to a more comprehensive understanding of the phenomenon being studied, there is little to no theoretical guidance cited within the transition from NICU literature. Adolescent mothers could represent as high as 15% of the NICU parent population<sup>23</sup>; however, the unique experience of the adolescent parent within the NICU—and more specifically their transition-home from the NICU—is poorly understood on a number of levels.<sup>24</sup> The application of Meleis' Transitions Theory highlights the importance of understanding this experience as more than a situational transition from hospital-to-home and instead as a complex phenomenon of intersecting and overlapping transition experiences.

#### **TRANSITIONS THEORY APPLIED: BEYOND THE SITUATIONAL**

Transitions Theory represents a useful framework for understanding the types, multiplicity, and complexity of transitions experienced by adolescent mothers with infants discharged home following admission to the NICU shortly after birth. Specifically, these mothers, at the time of discharge from the NICU, are experiencing at least 4 transitions: (i) a health-illness transition—NICU admission; caring for an infant with increased risk of developmental-delay/complex health needs and the associated uncertainties; (ii) a developmental transition—becoming a mother; (iii) a situational transition—discharge home

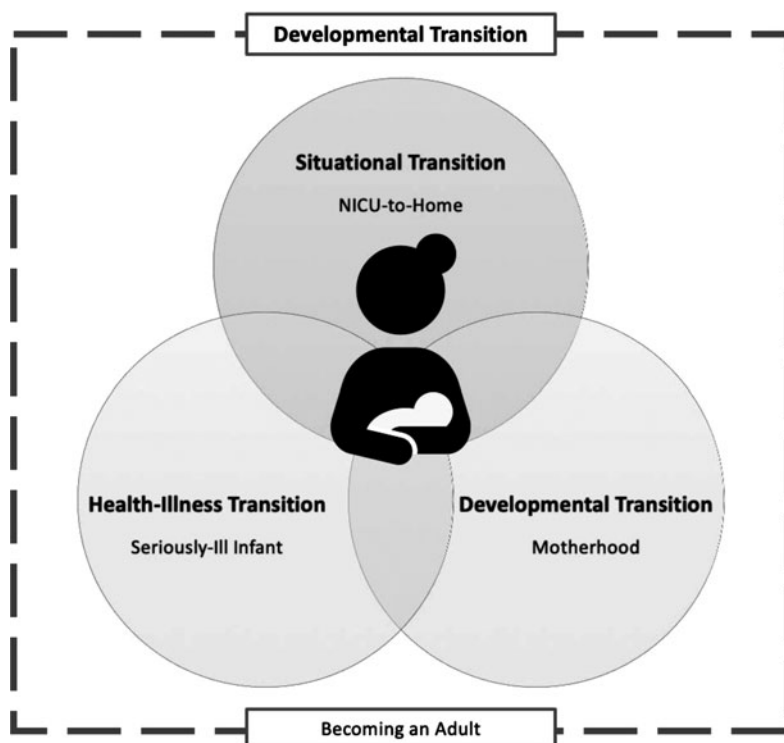
from the NICU and notably, these 3 transitions occur within the context of a fourth transition; and (iv) the developmental transition of the adolescent mother to adulthood (see the Figure). Exploring each of these transitions more deeply serves to highlight the complexity that needs to be considered when a young woman is discharged home from the NICU with her infant.

### Health-Illness transition—parent of a seriously ill infant

Admission to the NICU is a source of stress, anxiety, depression, and grief, with emotional and psychological outcomes often lasting well beyond the infant's discharge.<sup>24-27</sup> When individuals and their families experience an acute health event, receive an unexpected diagnosis, or learn they are at risk for a particular condition, they are experiencing health-illness transitions. From the moment

a mother learns her infant is seriously ill and will require specialized care in a NICU, she commences a health-illness transition that is often characterized by uncertainty.<sup>17</sup> Uncertainty is cited as the single greatest source of stress for those affected by serious illness, with uncertainty pervading parents' experiences of a child's serious illness.<sup>28</sup> Parental experiences of their infants requiring specialized care in the NICU are dominated by prolonged periods of uncertainty from NICU admission through discharge-home and beyond.<sup>18,19,29,30</sup> Derived from knowledge in nursing and other disciplines, Michel's<sup>31</sup> middle-range nursing theory of Uncertainty in Illness offers an explanation for the process of determining meaning in the illness experience.

Uncertainty is a major component of an illness experience and is generally perceived as a significant stressor.<sup>32</sup> Uncertainty develops when the patient (or parent experiencing



**Figure.** Types of transitions experienced by adolescent mothers with infants discharged from the neonatal intensive care unit.

illness of a child) does not form a cognitive schema, or subjective interpretation, for an illness event. A number of variables can impact whether a situation is perceived as uncertain including the stimuli frame (eg, symptom pattern, event familiarity, and event congruency), cognitive capacity, and structure providers (eg, credible authority, social support, and education).<sup>31,33</sup> Uncertainty in Illness theory and the uncertainty variables help explain why this concept dominates parental experiences of NICU admission and beyond. The admission of an infant to the NICU shortly after birth is rarely expected, thus leading to a situation perceived as both unfamiliar and incongruent with prior expectations (delivery of a healthy newborn). Additionally, for the adolescent mother, immature brain development, mistrust of health systems, lack of social support, and lower educational attainment are likely to contribute to more profound and pervasive feelings of uncertainty, which can lead to intrusive thoughts, avoidance of social interaction, and severe emotional distress.<sup>34</sup>

While Uncertainty in Illness theory further explicates the health-illness transition experienced in parenting a seriously ill infant or an infant at risk for developmental delay, it still only accounts for one of the transitions the adolescent mother must face when her infant is admitted to the NICU.

### **Developmental transition—transition to motherhood**

Developmental transitions are complex and dynamic phenomena involving predictable, biologically determined stages of growth as well as nonnormative, unpredictable events likely to influence health and well-being.<sup>2</sup> Many developmental transitions, such as experiencing menopause or becoming a mother, align with health experiences and therefore intersect with the roles and values of the nursing profession. Nursing theorist Ramona Mercer defines and describes the developmental transition to motherhood in her middle-range nursing theory, *Becom-*

*ing a Mother*.<sup>35</sup> According to the theory, the transition to motherhood is characterized by a period of reorganization in a woman's life that involves the addition of the mothering role to an established set of roles according to the woman's particular life stage. During this process the mother first learns the expectations of the maternal role and relates to the fetus in utero, then begins taking on the role of a mother guided by others in the mother's social system, she then makes the new role fit within her existing lifestyle developing unique ways of dealing with the role, and eventually integrates maternal identity into her persona.<sup>36</sup>

Becoming a mother as a theoretical framework for explaining the process of transition to motherhood has been widely accepted by the nursing profession. The theory has been adopted into areas of nursing practice, education, and research that encounter women during pregnancy and in the mothering role. The theory has also been advanced by exploring and expanding the theoretical concept for a number of unique circumstances including adolescent motherhood and motherhood in the context of the NICU.<sup>37,38</sup> For example, the transition to motherhood can be a significantly different experience for adolescent mothers compared with adult mothers with a number of factors including relationships, finances, housing, and availability of informal support impacting whether this transition is perceived as positive or negative.<sup>37</sup>

### **Situational transition—NICU-to-home**

The NICU environment and the uncertainty associated with NICU admission can have a negative impact on the transition to motherhood, leaving mothers with infants in the NICU feeling disconnected from their infant and "hovering around the edge of mothering."<sup>38</sup> The accounts of the profound experiences of motherhood in the NICU described by Shin and White-Taut<sup>38</sup> underscore the importance of understanding intersecting developmental transitions and health-illness transitions. These transition

experiences become woven in such a way that a new experience is created and is unique in that does not exist when one or the other is experienced alone. The complexity of this experience is now compounded when the infant is discharged home from the NICU.

Situational transitions, such as the discharge home from the hospital, have been widely explored in the health literature, with various aspects of the discharge experience or discharge for specific patient populations well documented. Much of the literature related to transition home from the NICU has focused on the description and evaluation of NICU discharge interventions<sup>22,39</sup>; discharge readiness indicators for infants and parents<sup>40</sup>; and descriptions of the parent experience.<sup>17-19,25,41</sup> Kenner with colleagues, through a series of studies conducted with parents of infants following NICU discharge, developed the Transition Model from NICU to home.<sup>42</sup> Based on a qualitative descriptive study asking parents what they were concerned about regarding discharge of their infant from the NICU, 5 thematic categories of responses emerged: informational needs, anticipatory grief, parent-child development, stress and coping, and social support; these themes represent the 5 concepts that constitute the proposed theoretical model or framework.<sup>30</sup> The Kenner Transition model is a useful framework to address the information needs of parents prior to discharge from the NICU and has also led to the development of a measurement tool to assess transition challenges among NICU parents. The issue that remains is that the literature on the situational transition from NICU-to-home is often focused on the discharge event rather than the process experienced as one moves from hospital-to-home. This focus on 1 or 2 time points in the entire transition (eg, preparing for and/or discharge from hospital) makes it difficult to fully understand what the experience entails and for providers, it is then difficult to target interventions aimed at improving points along this process. Additionally, as outlined earlier, the experience of the adolescent parent in the context of the NICU

is poorly understood and it is this developmental transition to adulthood that encompasses all the other transitions happening at this time.

### **Developmental transition—becoming an adult**

The transition experiences outlined earlier, the transition to motherhood, the health-illness transition of having an infant admitted to the NICU and the situational transition upon the infant's discharge, are, theoretically, experienced by all mothers in the situation where their infant is ill at or shortly after birth. However, the developmental transition to adulthood is a process that overarches these other 3 transition experiences and is perhaps the most important to understanding the complexity of the experiences of young mothers upon discharge of their infant from the NICU.

Adolescence is marked by significant physical, emotional, intellectual, and social changes including the physical transformations of puberty, intense interest in peer activities, novelty seeking, increased risk taking, and decreasing dependence on one's parents.<sup>43,44</sup> While the presence of secondary sex characteristics and engaging in sexual activity gives the appearance of being more mature, the adolescent brain is still developing. The prefrontal cortex is the fastest and largest region of brain development in adolescence, and it is responsible for advanced reasoning, including the ability to plan, understand cause and effect, think through scenarios, and manage impulses.<sup>43,45</sup> Knowledge that this area is still developing throughout adolescence serves to highlight a biological component important in the understanding of pregnancy in adolescence; for example, this immature cognitive functioning can lead to distortions in judgment, leading adolescents to believe that pregnancy could not happen to them, or when their pregnancy is confirmed, adolescents may find it difficult to employ abstract decision-making or planning for the future.<sup>43,45</sup> While this is simply one example of how the unique

developmental issues that characterize adolescence have an impact on health and related behaviors, it emphasizes the demand for a specialized approach when the individuals in this life stage intersect with the health and social care systems.

The dominant developmental theory proposed by Erikson<sup>46</sup> advances that adolescence begins with puberty and lasts until the late teenage years; adolescence is then followed by young adulthood lasting from the late teenage years until age 40. However, sociologist Arnett<sup>47</sup> argues that this paradigm no longer fits the normative pattern in industrialized nations and proposes that the transition to adulthood is now long enough to represent an additional period in the life course: Emerging Adulthood. In the theory, Arnett argues that demographic changes in industrialized nations over the past 50 years have altered the nature of development for young people in their late teens and early twenties. The theory's main argument is that Emerging Adulthood is neither adolescence nor young adulthood (the dominant stages proposed by Erikson) but is theoretically and empirically distinct from them both.<sup>47</sup> Emerging Adulthood is defined by "longer and more widespread education, later entry to marriage and parenthood, and a prolonged and erratic transition to stable work".<sup>48</sup> Five distinguishing features of Emerging Adulthood are proposed: identity explorations, instability, self-focus, feeling in-between, and possibilities/optimism.<sup>48</sup>

Arnett's theory of Emerging Adulthood proposes the addition of a life stage to developmental theory that has remained essentially unchanged for over half a century. He offers compelling demographic and empirical evidence for his propositions and clearly explicates the new paradigm. The new developmental stage has been adopted within the nursing and health literature, as it is this group that experiences the transition from pediatric to adult care services (typically at age 18 years), a current focus in the fields of pediatrics and transitional care.<sup>49</sup> While

the theory describes notable features of an emerging adult on a typical trajectory, it is unclear what happens when someone advances their trajectory prematurely—like in the case of a pregnant or parenting young woman. The intersection of the developmental transitions of motherhood and emerging adulthood has not been explicated, leaving many questions about what it means to experience this new life stage as a pregnant and parenting young woman. Regardless of the label given this developmental stage, it is distinct from adulthood, and individuals experiencing this developmental transition should be given specific consideration when this transition experience intersects with the others described earlier.

### THE IMPORTANCE OF INTERSECTING AND OVERLAPPING TRANSITIONS

Using Meleis' Transitions Theory to explore the transition-home from the NICU as experienced by adolescent mothers offers a unique perspective for understanding the issue and serves to highlight the complexity of the transition experience that is not currently elucidated in the existing literature. From Transitions Theory we understand that transitions are periods characterized by uncertainty and disconnectedness, where there are losses of networks and social supports, and therefore individuals experiencing transitions are in a vulnerable state and often require intervention to facilitate healthy transition and enhance healthy outcomes following transitions.<sup>2</sup> What remains unclear though is the possible cascading or compounding effect of these multiple transitions, or the potential health risks or consequences of developmental transitions intersecting with health-illness and situational transitions. Simply combining the concepts from multiple related empirical studies or theories does not create a comprehensive understanding of the unique transition-home phenomenon experienced by adolescent



mothers with infants discharged from the NICU.

Examining and applying Transitions Theory's concepts emphasizes the importance of understanding the number and types of transitions that may intersect or overlap with the situational transition of hospital to home. In this article the adolescent mother serves as an example, as she is simultaneously experiencing the transition to motherhood; parenting an infant with complex health needs and risk for developmental delay; transitioning from the critical care environment to home—all within the context of transitioning to adulthood. However, to facilitate healthy transitions in any population, this consideration of multiplicity and complexity in the transition experience is important. Exploring each type of transition allows for thinking that extends beyond the concept as simply the situational transition or discharge event, and for nurses, it is this kind of theoretical approach, focused on a robust and holistic definition of transition, that is important for building disciplinary knowledge, advancing nursing practice, and keeping Transitions Theory at the forefront of the hospital-to-home discourse.

### MOVING FORWARD WITH A THEORY-INFORMED UNDERSTANDING OF TRANSITIONS

To extend the disciplinary knowledge base related to transitions and advance transitional

care practices, knowledge-generating research—informing health care professionals of the distinct circumstances, experiences, and needs of individuals across various transitions experiences—is warranted. This theory-informed research can then be translated into policy and practice that facilitates a healthy and holistic approach to care transitions. To continue the example of the adolescent mother with an infant discharged home from the NICU, individually each of the transitions she experiences has been explored to some extent within the health literature; however, the unique and often complex intersection of these transition processes have yet to be investigated. This gap in the literature supports the argument for a proposed grounded theory study to explain how adolescent mothers transition-home following discharge of their infant from the NICU. This understanding can then be used to inform practices and policies, beginning in the NICU and continuing beyond the acute care setting, to address the complex biopsychosocial care needs of this unique group of mother/infant dyads.

A holistic approach to transitions, that is theory-informed, may quite possibly be a key factor in addressing the problem of quality care transitions that faces health systems today. Nurses are in the unique position, having the disciplinary knowledge of Transitions Theory and the frequent encounters with individuals experiencing transitions, to ensure successful hospital-to-home transitions across all contexts.

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