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Improving the Discharge to Home Experience for Pediatric Heart Center Patients and Families

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ABSTRACT

Purpose: The purpose of this study was to determine if implementation of the discharge specialist role improves family perception of discharge readiness and determines whether the use of the role decreases the number of tasks needing completion on the day of discharge.
Design and Methods: A prospective descriptive study was designed to compare parent readiness for discharge from two groups of participants. One group had a discharge specialist the day of discharge. The other group did not have the assistance of the discharge specialist on the day of discharge. Participants were contacted after discharge and surveyed on their perception of readiness for discharge based on a modified version of the Care Transitions Method Survey. Patient responses were either *Strongly Agree* or *Less than Strongly Agree*.
Results: A total of 60 patients (30 in each group) were analyzed. There were no statistically significant differences in demographic variables between the two groups. The overall average score of the composite proportion responding with *Strongly Agree* was higher among caregivers using a discharge specialist (Mean = 88.2) as compared to those without (Mean = 55.9, U = 157.0, $p < .001$).
Conclusion: The use of a discharge specialist on the day of discharge resulted in a higher parent perception of discharge readiness in this sample of children with complex cardiac diagnosis.
Practice Implications: The use of a discharge specialist in the heart center can assist with the successful transition from hospital to home. Future research should examine the effect of the discharge specialist on hospital readmission rates and clinical outcomes.

Background and Significance

Transitions in care are often considered high-risk since the possibility for omitted or miscommunication can negatively impact patient outcomes (Ciaramella, Longworth, Larraz, & Murphy, 2014). Hospitals have invested time and resources into addressing transitions to ensure safe and effective care. However, the transition from the hospital to home is a critical transition that is often overlooked by busy health care providers (McBride & Andrews, 2013). Appointments are made, prescriptions are written, and supplies may be ordered but the time for teaching is limited. For parents of medically complex children, this is a critical time as they prepare to assume the care for their child.

On average the Heart Center, a critical care unit within this academic pediatric hospital, will discharge 28 patients per week and approximately 30% of them will need extensive discharge teaching. Many of these patients will be going home for the first time with a complex cardiac diagnosis and/or repair. Making the transition from critical care to home can be extremely stressful for both the patient and the family. The child is losing the title of "patient" and the support systems that were readily available in the hospital environment (McBride & Andrews, 2013). This level of stress makes careful discharge planning essential for the safe transition of these patients from the hospital to home.

Nurses have an integral role in discharge planning because they have comprehensive knowledge of the needs of patients and families as they prepare for this step (Graham, Gallagher, & Bothe, 2013). Nurses must ensure that caregivers have a good understanding of the disease process and be able to recognize whether their child's condition worsens. However, there are challenges when providing nursing care for several patients at once. Time constraints and the level of acuity of these patients may affect the quality, effort and time the bedside nurse can allocate towards discharging a patient. It is currently estimated that at least one in five families experience a readmission or emergency room visit due to inability to comprehend the discharge teaching (McBride

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& Andrews, 2013). Previous research has clearly documented the importance of the quality of discharge teaching in helping parents prepare for discharge and prevent negative outcomes (Weis et al., 2017).

The goal of discharge teaching is to prepare the family to care for the child who has experienced a significant health status change at home. Nurses have traditionally been taught that discharge teaching begins at the time of admission and continues through hospitalization. However, in the critical care environment this cannot always happen. In this hospital, patients are discharged to home directly from the critical care unit. A chart review revealed that almost all of the discharge teaching was completed on the day of discharge. Nurses were concerned that they were not able to keep the teaching family-centered and individualized to the needs of specific patients. The purpose of this study was to determine if implementation of the discharge specialist role improves family perception of discharge readiness and determines whether the use of the role decreases the number of tasks needing completion on the day of discharge.

Literature Review

Discharge as a Stressor for the Patient and Family

A pending discharge can be stressful for the family as they may not have had any significant medical knowledge prior to this hospitalization. Parents or caregivers are being challenged to learn about the child's medical condition; any needed medications, instructions for additional medical care activities (i.e., dressing changes, nasogastric tube feedings) warning signs and symptoms to watch for at home to indicate worsening physical status, and follow-up appointments with multiple care providers (Berry et al., 2013; Tyler et al., 2014). Additionally, some of these families include new parents who are not only taking a new baby home, but also an infant with a serious medical condition. This transition can certainly create a period of increased vulnerability.

Previous research has clearly documented the stress encountered by families as they prepare to leave the safety of the hospital setting (Auger, Kenyon, Feudtner, & Davis, 2014; Berry et al., 2013). Parents of children with complex medical needs are challenged to adjust to a "new normal" and establish a new routine at home. These parents may have difficulty coping with their child's current physical condition, managing all required medical care, and dealing with the effect of their child's additional needs on the family as a whole (Lerret et al., 2014). The quality of the discharge teaching delivered by the nurse can directly impact the parent's readiness for discharge (Gibson, Stetler, Haglund, & Lerret, 2017).

Adverse Outcomes

As care for children with various cardiac conditions has become more complex, preparing families for a safe transition to home has become more challenging (Tyler et al., 2014). The depth and breadth of knowledge required by both nurse and family has greatly increased throughout the years making the discharge process much more demanding. In addition, there are multiple care providers involved in the inpatient and outpatient care of the child and family yet it is the nurse's responsibility to ensure all is coordinated prior to discharge (Auger et al., 2014; Tyler et al., 2014).

Nurses are acutely aware of the need to develop a therapeutic relationship with the family to ensure ongoing communication for a successful discharge. Engagement of families in their child's care throughout the hospitalization contributes significantly to readiness for discharge (Tyler et al., 2014). Poor communication with patients and families during the hospitalization and at the time of discharge can result in adverse outcomes such as medication inaccuracies, omitted treatments, return trips to the emergency department, or even hospital readmission (Auger et al., 2014; Desai, Popalisky, Simon, & Mangione-Smith, 2015). Effort on the part of all members of the healthcare team to maintain optimal communication is needed to prepare families for discharge and prevent adverse outcomes.

Current Interventions for Discharge

As pediatric patients become increasingly complex, the needs at discharge are also becoming more complex. In the hospital environment, the responsibility for discharge planning and ensuring all needs are met for a safe transition to home is implicit in the nursing role even though multiple caregivers participate in the delivery of care. Some hospitals are adopting care coordination models or tools to provide assistance in the transition from the inpatient setting (Weerahandi et al., 2015). These interventions are frequently focused on preventing readmission so include intense outpatient care management rather than preparation for discharge.

Other hospitals have sought to involve the multidisciplinary team in the discharge process of children through the use of an assessment for discharge readiness tool imbedded within the electronic medical record. The project team found that coordination and communication among providers involved in care of complex patients was often lacking and that many tasks required for a safe and effective discharge were not addressed in a timely manner. By making the discharge planning easily accessible it became possible for multiple caregivers to participate in the process and improve healthcare delivery (Tyler et al., 2014).

A systematic review by Auger et al. (2014) was completed to investigate discharge interventions used to reduce pediatric readmission. The analysis of 14 studies revealed that intensive inpatient education prior to discharge and establishment of therapeutic communication with families were essential to a successful discharge (Auger et al., 2014). Again, the engagement of families in the care of their child was critical to the delivery of care throughout the hospitalization. Additionally, an individual charged with the responsibility to coordinate the discharge process was a vital component to any initiative (Auger et al., 2014).

The concept of shared decision making (SDM) has also been explored among pediatric patients and their families in children who have received solid organ transplants (Lerret, Haglund, & Johnson, 2016). SDM as defined in the Affordable Care Act, refers to the importance of engaging both families and the patient in decisions regarding health care (Informed Medical Decisions Foundation, 2015). Findings from the qualitative study reveal that parents want to be included in decisions regarding their child and seek health care professionals who are accessible, approachable, dependable, knowledgeable as well as supportive and transparent. The collaboration and the characteristics of the health care providers are thought to impact health outcomes and prevent readmission to the hospital (Lerret et al., 2016).

The role of a discharge specialist has been explored in the adult population (Ciaramella et al., 2014; Lane, Jackson, Odom, Cannella, & Hinshaw, 2009). Lane measured the impact of the role of a discharge specialist on nurse satisfaction, workload, and medication reconciliation in a population of adult patients discharged from a bone, joint, and neurology unit. The role of the discharge specialist on the day of discharge was also examined in a mother baby unit with full-term healthy newborns. However, the role has never been reported in the pediatric population.

Methods

Intervention

The role of a discharge specialist was created to assist the bedside nurse with the discharge process and to ensure a smooth transition to home for patients and families. The discharge specialist partners with the multidisciplinary team in planning to make sure everything is prepared and accurate for a successful discharge. Medication administration, diet and feeding instructions, and dressing changes as needed are addressed. In addition to patient specific teaching, coordination of

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