Transitional Care in a Nursing Home

by

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Department of Nursing
Duke University

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Ruth A. Anderson, Supervisor

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Eleanor S. McConnell

Dissertation submitted in partial fulfillment
of the requirements for the degree of Doctor of Philosophy
in the Department of Nursing
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ABSTRACT

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Abstract

**Background:** Each year, 2 million older Americans complete three to four week courses of post-acute care in nursing homes and return home; however, scant research describes services to protect older adults during their transitions from nursing homes to home. In hospital-based studies, transitional care interventions were associated with improved health outcomes for older adults, but these interventions added new staff positions, which are likely cost-prohibitive in nursing homes. Further, no prior study explored transitional care provided for vulnerable, post-acute care patients in nursing homes. Thus, this dissertation was designed to develop new understandings about transitional care provided by existing staff members in nursing homes. The study has two specific aims: (a) describe transitional care and outcomes for older adults who obtain post-acute care in nursing homes from the day of admission through discharge; (b) explore the influence of interactions, among selected older adult patients and their group of nursing home caregivers, on their ability to accomplish transitional care processes.

**Method:** Using data from a literature review and theoretical models, including Donabedian’s Model of Healthcare Quality and Anderson’s Local Interaction Model, a conceptual model of transitional care for post-acute care patients in nursing homes was constructed. The conceptual model was then used to guide exploration of the research aims with a longitudinal, multiple case study of transitional care in a nursing home. The unit of analysis was the patient care-team, defined as individual post-acute care patients, family caregivers, and 6 to 8 professional staff in each team (e.g., rehabilitation
therapists, physicians, nurses and social workers). Three patient care-team members were purposively sampled for study. Moreover, longitudinal data were collected using repeated interviews and observations with patients, family caregivers, and staff; document and daily chart reviews; and surveys of patient preparedness for discharge. Manifest content analysis and thematic analysis (qualitative methods) were used to conduct within- and across-case analyses of trajectories of transitional care and to identify strengths, gaps and inconsistencies in care.

**Results:** Findings related to the first research aim include a description of transitional care in the study nursing home. Serious gaps and inconsistencies in transitional care exposed older, post-acute care patients to risks for complications in their transitions from the study nursing home to home: (a) systemic supports were not available to support nursing home staff who provided transitional care; further, nursing home staff and leadership were unaware that they provided transitional care; (b) care processes were not in place to prepare older adults and their caregivers to continue care at home; (c) care-team interactions often excluded family members; and (d) post-acute care patients left the nursing home without resources needed to support safe transitions in care, including transitional care plans, education to appropriately respond to acute changes in health, written materials to guide care at home, referrals for medical follow-up after discharge, and transfers of clinical information to primary care physicians.

Findings related to the second research aim include a description of local interaction strategies and the effectiveness of transitional care processes. When
professional staff more consistently used local interaction strategies, specified in the model, care-team members exhibited greater capacity for connections, information exchange, and cognitive diversity. Further, when care-team interactions were of high quality and sufficient frequency, there were multiple indications of more effective transitional care, such as patient engagement in care, inclusion of patient priorities in care plans, and problem solving which included family members and diverse members of the patient care-team. Thus, local interaction strategies were essential staff behaviors needed to adapt care processes to the specific transitional care needs of individual patients.

Because transitional care is a grossly under-developed care process in nursing homes, these findings will likely have immediate implications for practice and research. Findings will provide nursing home administrators and staff with resources to develop and evaluate care in nursing homes; further, the findings will help to create targets for protocol and care process development to strengthen existing practice and address deficiencies. Findings will provide researchers with resources for studying transitional care in diverse samples of nursing homes, which should facilitate development of testable hypotheses for needed intervention studies. In addition, the local interaction strategies findings in the study may generalize to other settings of care, where interdependent staff work is required to establish connections, information networks, and to coordinate care among multiple staff members.
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Finally, I owe my deepest thanks Tori and Katie Toles. I do not know the words to express how greatly I appreciate their love and support.
1. Dissertation Introduction

Transitional care is recognized as an important strategy for supporting older adults as they make transitions between settings and providers of care (Boult, et al., 2009; Naylor, 2002; Sofaer, 2009). Two commonly described transitional care approaches are (a) to prepare older adults and their families with information, self-management strategies, and referrals to navigate care independently and (b) to support older adults and families with care coordination services for continuous coaching and education (Coleman, Parry, Chalmers, & Min, 2006; Jack, et al., 2009; Naylor, et al., 1999). At the core of transitional care, however provided, is the engagement and activation of older adults in plans for safe continuation and coordination of health care as they transition between settings of care (Naylor, et al., 2009; Parry, Kramer, & Coleman, 2006).

Many studies have described the enduring positive effects of added transitional care coordinators on health outcomes for older adults after transitions from hospitals to home, most notably the reduction in rates of re-hospitalization and use of emergency services after discharge from hospitals to home (Chiu & Newcomer, 2007; Kripalani, Jackson, Schnipper, & Coleman, 2007). With evidence from hospital-based intervention studies, several models of transitional care have been developed, such as the Transitional Care Model (Naylor, et al., 2004; Naylor et al., 2009), the Care Transitions Intervention (Coleman et al., 2006; Coleman, et al., 2004), and the Reengineered Hospital Discharge Program (Jack et al., 2009). An important next step in transitional care research is to adapt these hospital-based models to new settings and patient populations with high risk for complications from transitions in care (Naylor & Sochalski, 2010).
Post-acute care patients in nursing homes have emerged as large, new population of older adults at great risk for complications from transitions in care (American Medical Directors Association, 2009). Between 1999 and 2007, older adult use of nursing homes for post-acute care services increased by 32%, or from 1.4 to 1.8 million patients; thus, in 2007, more than 10% of all nursing home patients were admitted from hospitals for “short stay” post-acute care and expected discharges from nursing homes to home (Ng, Harrington, & Kitchener, 2010). Very little is known about the epidemiology, clinical needs, care processes, or care outcomes related to transitional care services for these post-acute care patients in nursing homes. It is known that they are a vulnerable patient population – they are often frail and dependent on informal caregivers for support (Gill, Gahbauer, Han, & Allore, 2009). It is also known that nursing home staff members, who traditionally provide care for long-term care patients, may lack expertise for providing transitional care to prepare post-acute care patients for their transitions to home (American Medical Directors Association, 2009). Thus, post-acute care patients, who are vulnerable to complications from multiple transitions in care, may not receive the basic care required to prepare them for safe transitions from nursing homes to home.

Transitional care, provided by existing nursing home staff for post-acute care patients in nursing homes, has not been studied and thus critical data are missing which explicitly describe: (a) nursing home structures which facilitate transitional care (e.g., protocols and human resources), (b) care processes designed to promote safe care transitions (e.g., patient teaching and care coordination across the continuum of care), (c) team processes or interaction strategies for coordinating transitional care (e.g., staff
interaction patterns which adapt care processes to individual patient needs), and (d) outcome measurements of the quality of transitional care (e.g., staff, caregiver, and patient perceptions of the change in older adult preparedness to manage care transitions from the nursing home to home). Thus, the strengths, gaps, and inconsistencies in transitional care for post-acute care patients are not understood and it is not yet possible to form testable hypotheses to guide research designed to improve care in the nursing home setting.

To address these research needs, this dissertation has two research aims: (a) describe transitional care and outcomes for older adults who obtain post-acute care in nursing homes from the day of admission through discharge; (b) explore the influence of interactions, among selected older adult patients and their group of nursing home caregivers, on their ability to accomplish transitional care processes. Research aims are explored with systematic literature reviews; synthesis of reviewed literature with theories of organizational and healthcare quality; development of a conceptual model of transitional care; and analyses of data from a longitudinal, multiple case study of transitional care in a single nursing home. Findings from the dissertation research are presented in four chapters and one conclusion chapter as follows.

In Chapter Two, I describe a new conceptual model of transitional care for post-acute care patients in nursing homes. Donabedian’s Model of Healthcare Quality (Donabedian, 1980) and Anderson’s Model of Local Interaction (Anderson & McDaniel, 2008) are used to organize findings from a systematic review of hospital-based intervention studies, and to develop a conceptual model to guide assessment of
transitional care in nursing homes. Implications and limitations related to the new model are discussed. On the submission date of the dissertation, the manuscript of this chapter is in review with the *International Journal of Nursing Studies* and the text is reprinted in the dissertation with permission.

In Chapter Three, the new conceptual model of transitional care is applied in a longitudinal, multiple case study of transitional care that was conducted in a single nursing home. In Chapter Three, research aim one is explored; the new conceptual model is used to analyze case study findings, which describe transitional care structures, processes, staff interactions and care outcomes in a single nursing home. On the submission date of the dissertation, a manuscript of this chapter was being prepared for submission to a nursing research journal.

In Chapter Four, findings from a literature review of relationship-oriented management practices in nursing homes are summarized; Anderson’s Model of Local Interactions (Anderson & McDaniel, 2008) is used to evaluate the evidence-base of management practices in nursing homes and how existing descriptions of relationship-oriented management practices provide guidance for new studies of nursing home processes and outcomes. On the submission date of the dissertation, the manuscript of this chapter is in review for publication in *Nursing Outlook* and the text is reprinted in the dissertation with permission.

In Chapter Five, data from the longitudinal multiple case study were qualitatively analyzed to explore research aim two. Findings describe observations of local interaction strategies which promoted staff and patient connections, information exchange and
cognitive diversity in problem solving in the nursing home; findings also describe associations between local interaction strategies and effective transitional care processes.

In Chapter Six, I discuss the implications of the four papers, identify study limitations and draw conclusions for future research.
2. Transitional Care for Post-Acute Care Patients in Nursing Homes: A Literature Review and Proposed Guide for Assessing Care

Transitional care is a care process “designed to improve continuity and coordination of care for older adults and their caregivers as they transfer between settings and providers of care” (Coleman & Boult, 2003, p. 549). Transitional care includes a range of services including detailed assessment, patient-centered planning, patient and caregiver education and timely information transfer of medical information between providers (Kripalani, Jackson et al., 2007; Naylor et al., 2009). It has proven to be an effective resource for improving older adult transitions from hospitals to home (Bull, Hansen, & Gross, 2000; Coleman et al., 2006; Krichbaum, 2007; Naylor et al., 1999). Little research, however, has explored transitional care provided for older post-acute care patients who transfer from nursing homes to home.

In the United States (U.S.), episodes of post-acute care in nursing homes typically extend for the three to four weeks needed for older adults to complete medical treatments and courses of rehabilitation therapy (Center for Medicare & Medicaid Services, 2009; Levenson, 1996). The large number of post-acute care patients in nursing homes and the potential for harm from poorly planned transitions from nursing homes to home suggests that transitional care for post-acute care patients is an important new area for research. Between 1999 and 2007, the number of post-acute care patients in U.S. nursing homes increased by 32%, or from 1.4 to 1.8 million patients (Ng et al., 2010). This trend of increasing non-hospital-based, post-acute care for older adults is an international phenomenon (O'Reilly, Lowson, Green, Young, & Forster, 2008). Notably, specialized
transitional care processes to prepare post-acute care patients for coordinating care at home are often lacking (American Medical Directors Association, 2009; Naylor et al., 2009). As a result, 10 - 13% of older post-acute care patients experience complications after nursing home discharge and require subsequent emergency department use and/or re-hospitalization (Coleman & Berenson, 2004). Epidemiological data on the cost of complications during or following transitional care from nursing homes to home are not available. These costs are thought to be significant. For example, the cost of re-hospitalization for Medicare Fee for Service participants in 2004 alone was $17.4 billion (Jencks, Williams, & Coleman, 2009).

As older adults transition from nursing homes to home, a confluence of medical vulnerability, fragmentation in healthcare systems, and resource limitations in nursing homes predisposes them to transition-related complications and poor health outcomes. First, older adults who receive post-acute care are a vulnerable patient population and are at great risk for harm from transitions between settings of care (K. S. Boockvar, et al., 2004; Coleman, Min, Chomiak, & Kramer, 2004; Kind, Smith, Pandhi, Frytak, & Finch, 2007; Murtaugh & Litke, 2002). Compared to older adults who transfer from hospitals to home, older adults who receive post-acute care in nursing homes are significantly older (Bozic, Wagle, Naessens, Berry, & Rubash, 2006; Mason, Auerbach, & LaPorte, 2009). They are often recovering from stroke, orthopedic surgeries, exacerbations of chronic conditions, and surgeries related to fractures from falls (Coleman, 2003; Gill et al., 2009; Mason et al., 2009). Further, post-acute care patients are more likely to be frail and physically dependent (Gill et al., 2009; Mason et al., 2009) and to bear greater burdens
from the de-conditioning resulting from recent acute changes in health and lifestyle
(M.M. Godfrey & Townsend, 2008; Meleis, Sawyer, Im, Hilfinger Messias, &
Schumacher, 2000; Olsson, Karlsson, & Ekman, 2007; Robinson, 1999).

Second, owing to fragmentation in healthcare systems in many countries
(Clarfield, Bergman, & Kane, 2001) and a resultant lack of communication among
healthcare providers, post-acute patients become the default coordinators of their own
care. Like older adults across systems of care, transitions from post-acute care settings to
home are likely compromised by inadequate or absent patient and informal caregiver
preparation for continuing care at home (Makaryus & Friedman, 2005; Pieper, et al.,
2007; Pippins, et al., 2008); poor communication of vital information between sending
and receiving healthcare providers (Boockvar, et al., 2009; Kripalani, et al., 2007; Moore,
McGinn, & Halm, 2007; Moore, Wisnivesky, Williams, & McGinn, 2003; Roy, et al.,
2005; van Walraven, Mamdani, Fang, & Austin, 2004; Were, et al., 2009); and
incomplete documentation of treatment plans and care instructions to guide older adult
self-care at home (Harrison & Verhoef, 2002; Naylor et al., 2004; Weaver, Perloff, &
Waters, 1998). For many older adults, these transitional care problems result in self-care
errors (Boockvar et al., 2009; Moore et al., 2003; van Walraven et al., 2004), distress
(Archibald, 2003; McCullough, 2008; Robinson, 1999), and complications related to
incomplete recovery or rehabilitation (Coleman, 2003; Kind et al., 2007; Naylor &
Keating, 2008).

Finally, resource limitations in nursing homes may increase the risk for
complications in care transitions. No studies to date describe existing transitional care
processes in nursing homes; yet, several well-known characteristics of nursing homes suggest additional risk for transition complications. Because nursing homes were designed to provide long-term care, rather than short-term stays characterized by multiple care transitions, they may not be structured for providing adequate transitional care (Newcomer, Kang, & Graham, 2006). For example, relative to acute care, nursing home staffing includes fewer registered nurses, more licensed practical nurses and certified nursing assistants (Kim, Harrington, & Greene, 2009; Kim, Kovner, Harrington, Greene, & Mezey, 2009), and higher turnover rates for all staff types (Kilgore, 2009; Parmelee, Laszlo, & Taylor, 2009); thus staff may be under-prepared for coordinating the complex transitional care needs of post-acute care patients. Moreover, nursing homes operate in a context of constrained budgets and corporate structures which often foster high case loads reducing time available for providing transitional care (Kane, Shamlivan, Mueller, Duval, & Wilt, 2007; Weech-Maldonado, Meret-Hanke, Neff, & Mor, 2004). Thus, pressure on nursing home staff from structural, educational and financial constraints may limit the effectiveness of transitional care for post-acute care patients and thereby increase the risk for older adult complications during care transitions.

Transitional care is therefore a crucial but understudied aspect of care that has a potential to reduce complications for post-acute care patients as they transfer from nursing homes to home (American Medical Directors Association, 2009; Naylor et al., 2009). In this paper, I review empirical studies of transitional care interventions, conducted mainly in other healthcare settings, and synthesize empirical findings to address the emerging and largely unstudied problem of transitional care in nursing
homes. My objectives for the literature review were to: 1) identify effective transitional care practices that may be translatable to the nursing home setting of care, 2) describe gaps in knowledge and differences in healthcare systems that may be barriers to application of transitional care practices to nursing homes, and 3) synthesize findings from the review using Donabedian’s Structure-Process-Outcome model of quality (Donabedian, 1980; National Transitions of Care Coalition, 2008) in order to propose a model to guide assessment of transitional care quality in post-acute care settings.

Search Strategy for Transitional Care Intervention Studies

To identify controlled trials of interventions designed to improve continuity and coordination of care for older adults as they transition from inpatient settings of care (e.g., hospitals or nursing homes) to home, I searched for studies in the PubMed and CINAHL databases with the keyword “aged” individually combined with "discharge planning," "patient discharge,” "transitional care," and “transition.” I limited the search to studies that were clinical trials and published in English between 1999 and 2010. I screened titles and abstracts of 1,217 studies from the PubMed search and identified 49 studies related to transitional care. My search of the CINAHL database duplicated findings from the PubMed search. After further evaluation, I eliminated 27 studies that reported only observational findings or described interventions which solely explored collaboration between outpatient providers. I retained 22 studies from the PubMed search. Using a hand-search of references in studies selected for review and in relevant meta-analyses (Beswick, et al., 2008; Phillips, et al., 2004; Shepperd, et al., 2010), I identified ten additional studies and included them in the review. The 32 studies
reviewed are summarized in Table 1. I used the method for systematic review set forth in Garrard (2007) to analyze and synthesize the studies.
<table>
<thead>
<tr>
<th>Research Team</th>
<th>Sample</th>
<th>Intervention Summary (Randomized clinical trial (RCT); unless indicated, control was standard care)</th>
<th>Main Findings (All comparisons were to controls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Naylor et al., 1999)</td>
<td>363 U.S. adults</td>
<td>Hospitalized with mixed diagnoses Mean age = 75 yrs</td>
<td>Added advanced practice registered nurses (APRN) and transitional care protocols Provided pre- and post-discharge transitional care (e.g., assessment, case coordination, home visits, and referral)</td>
</tr>
<tr>
<td>(Nikolaus, Specht-Leible, Bach, Oster, &amp; Schlierf, 1999)</td>
<td>545 German adults</td>
<td>Hospitalized with mixed diagnoses Mean age &gt; 81 yrs</td>
<td>Added a nurse, rehabilitation therapist, and social worker and protocols for transitional care Provided pre- and post-discharge transitional care, (e.g., discharge planning, home safety evaluation and functional monitoring)</td>
</tr>
<tr>
<td>(Bull et al., 2000)</td>
<td>158 U.S. caregiver &amp; patient dyads</td>
<td>Hospitalized with heart failure Mean age = 74 yrs</td>
<td>Added transitional care training for RNs and social workers and dedicated RN time Provided pre-discharge transitional care services (e.g., assessment and patient/caregiver self-care education)</td>
</tr>
<tr>
<td>(Nazareth, et al., 2001)</td>
<td>362 adults in England</td>
<td>Hospitalized with mixed diagnoses Mean age = 84 yrs</td>
<td>Added specially-trained pharmacists and revised medication education and monitoring procedures Provided pre- and post-discharge transitional care (e.g., medication use/adherence/side effect monitoring and home visits)</td>
</tr>
<tr>
<td>(McDonald, et al., 2002)</td>
<td>545 Irish adults</td>
<td>Hospitalized with heart failure Mean age &gt; 70 yrs</td>
<td>Added APRNs and modified hospital heart failure treatment and discharge protocols Provided pre- and post-discharge education, coordination, phone calls and clinic support</td>
</tr>
</tbody>
</table>
### Table 1 continued

<table>
<thead>
<tr>
<th>Research Team</th>
<th>Sample</th>
<th>Intervention Summary</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harrison &amp; Verhoef, 2002</td>
<td>192 U.S. adults</td>
<td>• Added transitional care protocols and RN duties</td>
<td>• Improved health-related quality of life (25.8 vs. 35.4, p &lt; .001)</td>
</tr>
<tr>
<td></td>
<td>Hospitalized with heart failure</td>
<td>• Provided pre- and post-discharge transitional care (e.g., patient and caregiver education, coordination of home-care and nursing)</td>
<td>• Trend toward reduced hospital readmissions</td>
</tr>
<tr>
<td></td>
<td>Mean age = 72 yrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Krumholz, et al., 2002</td>
<td>88 U.S. adults</td>
<td>• Added trained RN educators, heart failure education protocols, and case coordination</td>
<td>• Decreased mortality and hospital re-admission, RR=.69 (95% CI 0.52 - 0.92)</td>
</tr>
<tr>
<td></td>
<td>Hospitalized with heart failure</td>
<td>• Provided pre- and post-discharge transitional care services (e.g., patient-centered education, case coordination, and home visits/phone calls)</td>
<td>• Decreased hospital costs, ($14,420 vs. $21,935, p = .02)</td>
</tr>
<tr>
<td></td>
<td>Mean age &gt; 71 yrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stewart &amp; Horowitz, 2002</td>
<td>297 U.S. adults</td>
<td>• Added RNs and/or pharmacists and protocols for educating heart failure patients for self-care</td>
<td>• Improved odds of event free survival, RR = .7 (95% CI range not reported)</td>
</tr>
<tr>
<td></td>
<td>Hospitalized with heart failure</td>
<td>• Provided pre- and post-discharge education and counseling services and detailed clinical data to community providers</td>
<td>• Decreased hospital readmissions (0.17 vs. 0.29 per month, p &lt; .05)</td>
</tr>
<tr>
<td></td>
<td>Mean age = 75 yrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laramee, Levinsky, Sargent, Ross, &amp; Callas, 2003</td>
<td>287 U.S. adults</td>
<td>• Added an APRN and discharge planning, treatment and care coordination protocols</td>
<td>• No effect on hospital readmission</td>
</tr>
<tr>
<td></td>
<td>Hospitalized with heart failure</td>
<td>• Provided pre- and post-discharge transitional care services (e.g., discharge planning, patient/caregiver education, and telephone follow-up visits)</td>
<td>• Improved adherence to plan for daily weights, edema checks, fluid recommendations, take medications (p&lt;.01)</td>
</tr>
<tr>
<td></td>
<td>Mean age &gt; 70 yrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mion, et al., 2003</td>
<td>650 U.S adults</td>
<td>• Added an APRN and protocols for case finding, assessment and referral to community agencies</td>
<td>• No effect on hospital readmission</td>
</tr>
<tr>
<td></td>
<td>Emergency department (ED) patients</td>
<td>• Provided ED-based pre-discharge case coordination and community referral for follow-up care</td>
<td>• Reduced nursing home admission risk, odds ratio = 0.21 (95% CI 0.13-0.62)</td>
</tr>
<tr>
<td></td>
<td>Mean age &gt; 74 yrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Team</td>
<td>Sample</td>
<td>Intervention Summary</td>
<td>Main Findings</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>(Brand, et al., 2004)</td>
<td>166 Canadian adults</td>
<td>• Added an RN, transitional care protocols, and modified discharge planning procedures</td>
<td>• No differences in hospital readmission or emergency department use</td>
</tr>
<tr>
<td></td>
<td>Hospitalized with mixed diagnoses</td>
<td>• Provided pre- and post-discharge assessment, education, and planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean age &gt; 65 yrs</td>
<td>(included one clinic visit with the nurse for coordination)*</td>
<td></td>
</tr>
<tr>
<td>(Caplan, Williams, Daly, &amp; Abraham, 2004)</td>
<td>739 U.S. adults ED patients</td>
<td>• Added RN duties and protocols for transitional care for the ED</td>
<td>• Reduced rate of hospitalization (16.5% vs. 22%, p = .048)</td>
</tr>
<tr>
<td></td>
<td>Mean age = 75 yrs</td>
<td>• Provided pre- and post-discharge assessment, multidisciplinary planning, nurse home visits and community referrals</td>
<td>• Reduced ED use (44.4% vs. 54.3%, p = .007)</td>
</tr>
<tr>
<td>(Coleman, Smith et al., 2004)</td>
<td>158 U.S. adults Hospital patients</td>
<td>• Added APRNs, transitional care services protocols, and modified hospital discharge planning</td>
<td>• Reduced hospital readmission at 90 days, OR = .43 (95% CI 0.25 - 0.72)</td>
</tr>
<tr>
<td></td>
<td>Mean age &gt; 75 yrs</td>
<td>• Provided pre- and post-discharge transitional care (e.g., case management, written discharge plans, coaching and home visits.*</td>
<td>• Reduced ED use at 90 days, OR = 0.61 (95% CI 0.39– 0.95)</td>
</tr>
<tr>
<td>(Naylor et al., 2004)</td>
<td>239 U.S. adults Hospitalized heart failure patients</td>
<td>• Added APRNs and heart failure management and transitional care protocols and procedures</td>
<td>• Fewer hospital readmissions (104 vs. 162, p = .047)</td>
</tr>
<tr>
<td></td>
<td>Mean age = 76 yrs</td>
<td>• Provided pre- and post-discharge transitional care (e.g., comprehensive assessment, case coordination, and home visits)</td>
<td>• Lower health related costs ($7,636 vs. $12,481, p=.002)</td>
</tr>
<tr>
<td>(Crotty, Rowett, Spurling, Giles, &amp; Phillips, 2004)</td>
<td>88 U.S. adults Hospital patients</td>
<td>• Added pharmacist duties and protocols for evaluation of medication appropriateness</td>
<td>• Lower risk of worsening pain, RR = 0.55 (95% CI 0.32 - 0.94)</td>
</tr>
<tr>
<td></td>
<td>Mean age = 82 yrs</td>
<td>• Provided pre- and post-discharge medication reviews, information transfer to community providers and case conferencing</td>
<td>• Lower hospital utilization, RR = 0.38 (95% CI 0.15 - 0.99)</td>
</tr>
<tr>
<td>(Huang &amp; Liang, 2005)</td>
<td>126 adults in Taiwan Hospital patients</td>
<td>• Added an APRN, protocols for transitional care</td>
<td>• Reduced hospital readmissions, (4 vs. 13 patients, p = .02)</td>
</tr>
<tr>
<td></td>
<td>Mean age &gt; 65 yrs</td>
<td>• Provided pre and post-discharge transitional care (e.g., assessment planning, education, and home phone calls)</td>
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</tbody>
</table>
Research Team | Sample | Intervention Summary (Randomized clinical trial (RCT); unless indicated, control was standard care) | Main Findings (All comparisons were to controls)
--- | --- | --- | ---
(Koelling, Johnson, Cody, & Aaronson, 2005) | 223 U.S. adults, Hospitalized heart failure patients, Mean age = 65 yrs | Added RN educators and protocols for heart failure and transitional care planning, Provided pre-discharge education for heart failure care and resources/procedures for self-care at home | Reduced cardiac readmission, RR = 0.59 (95% CI 0.38 - 0.91), Reduced mortality, RR = 0.94 (95% CI 0.34 – 2.6)
(Preen, et al., 2005) | 189 Australian adults, Hospital patients, Mean age > 74 yrs | Added RN duties, discharge protocols, and communication with community providers, Provided pre-discharge assessment and patient-centered planning and coordinated clinical hand-offs with community providers | Improved SF-12 scores, (13.4 % vs. 2.8%, p = .003)
(Sinclair, Conroy, Davies, & Bayer, 2005) | 324 U.S. adults, Hospitalized myocardial infarction patients, Mean age = 65 yrs | Added RNs and protocols for transitional care, Provided pre- and post-discharge transitional care (e.g., assessment, patient education, guidance for risk factor reduction, and home visits) | Reduced hospital readmissions, RR = 0.68 (95% CI 0.47 - 0.98)
(Forster, et al., 2005) | 361 Canadian adults, Hospital patients, Mean age > 65 yrs | Added RNs and protocols to guide transitional care, Provided pre-and post-discharge transitional care (e.g., patient education, care coordination and supportive home phone calls) | No difference in post-discharge health outcomes
(Coleman et al., 2006) | 750 U.S. adults, Hospital patients, Mean age > 76 yrs | Added APRNs, transitional care services protocols, and modified hospital discharge planning, Provided pre- and post-discharge transitional care (e.g., case management, written discharge plans, coaching and home visits) | Reduced hospital readmission 90 days, OR = 0.64 (95% CI 0.42 - 0.99), Reduced non-elective hospital cost ($1,519 vs. $2016, p < .02)
(Newcomer et al., 2006) | 61 U.S. nursing home patients, Mean age = 79 yrs | Added an RN, social worker and protocols for providing transitional care, Provided pre- and post-discharge transitional care (e.g., assessment, planning, caregiver support, medical equipment, and home visits) | No difference in post-discharge health outcomes (e.g., the number discharged, the nursing home length of stay, and the number of hospital readmissions)
<table>
<thead>
<tr>
<th>Research Team</th>
<th>Sample</th>
<th>Intervention Summary (Randomized clinical trial (RCT); unless indicated, control was standard care)</th>
<th>Main Findings (All comparisons were to controls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Balaban, Weissman, Samuel, &amp; Woolhandler, 2008)</td>
<td>96 U.S. adults Hospitalized with mixed diagnoses Mean age = 56 yrs</td>
<td>Added RN duties and protocols for transitional care Provided pre- and post-discharge transitional care services (e.g., assessment and counseling, written discharge instructions and RN follow-up phone calls)</td>
<td>Reduced missed physician follow-up appointments (7% vs. 20%, p = 0.005) No difference in post-discharge health outcomes (e.g., hospital readmission)</td>
</tr>
<tr>
<td>(Delate, Chester, Stubbings, &amp; Barnes, 2008)</td>
<td>521 U.S. adults Skilled nursing facility patients Mean age = 78 yrs</td>
<td>Added a pharmacist and protocols for medication reconciliation and information relays to physicians Provided pre- and post-discharge transitional care services (e.g., medication reconciliation, problem lists and home phone calls *)</td>
<td>Lower mortality risk, RR = 0.22, (95% CI 0.06 - 0.88)</td>
</tr>
<tr>
<td>(Kwok, Lee, Woo, Lee, &amp; Griffith, 2008)</td>
<td>105 adults in Hong Kong Hospitalized heart failure patients Mean age &gt; 60 yrs</td>
<td>Added an RN and protocols for transitional care Provided pre- and post-discharge transitional care (e.g., assessment, patient education, care coordination and home visits)</td>
<td>No difference in hospital readmissions</td>
</tr>
<tr>
<td>(Shyu, Chen, Chen, Wang, &amp; Shao, 2008)</td>
<td>72 patient and caregiver dyads in Taiwan Hospitalized adults Mean age &gt; 74 yrs</td>
<td>Added specially trained RNs, protocols for transitional care, and modified discharge planning Provided pre- and post-discharge transitional care (e.g., patient and caregiver education, care coordination, phone calls and home visits)</td>
<td>Improved caregiver preparation for discharge, (12.75 vs. 11.73, p = .004) and self-assessment of preparation for discharge, (26 vs. 23.1, p = .008)</td>
</tr>
<tr>
<td>(Allen, et al., 2009)</td>
<td>380 U.S. adults Hospitalized with stroke Mean age = 68 yrs</td>
<td>Added APRNs, protocols for transitional care, and/or control and intervention patients and enhanced discharge planning protocols in both groups Provided pre- and post-discharge transitional care (e.g., care coordination and home visits)</td>
<td>No difference stroke symptom scores or days in the hospital Enhanced discharge planning was effective without APRNs/home visits</td>
</tr>
<tr>
<td>Research Team</td>
<td>Sample</td>
<td>Intervention Summary (Randomized clinical trial (RCT); unless indicated, control was standard care)</td>
<td>Main Findings (All comparisons were to controls)</td>
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</tbody>
</table>
| Dedhia, et al., 2009 | 237 U.S. adults Hospitalized with mixed diagnoses Mean age = 76 yrs | Added staff duties, protocols for multidisciplinary transitional care  
Provided pre-discharge transitional care (e.g., assessment, coordination, medication review, and information transfer to primary care *) | Improved quality of transitions,  
OR = 3.49 (95% CI 2.06 - 5.92)  
Reduced hospital readmissions  
OR = 0.59 (95% CI 0.34 - 0.97) |
| Jack et al., 2009 | 749 U.S. adults Hospitalized with mixed diagnoses Mean age = 50 yrs | Added RN case managers, protocols for transitional care, and modified discharge planning  
Provided pre- and post-discharge transitional care (e.g., education, coordination, tailored discharge materials, and home phone calls) | Reduced risk for hospital utilization, RR = 0.695 (95% CI 0.515 - 0.937)  
Improved primary care follow-up (62% vs. 44%, p < .001) |
| Lin, et al., 2009 | 50 adults in Taiwan Hospitalized with hip fracture Mean age > 78 yrs | Added RNs and protocols for transitional care  
Provided pre- and post-discharge transitional care services (e.g., assessment, education and coordination, and home visits) | Greater self-care knowledge,  
(F =11.57, p = .001)  
Improved general health  
(F = 5.04, p = .03) |
| Zhao & Wong, 2009 | 200 adults in China Hospitalized heart failure patients Mean age = 72 yrs | Added RNs and protocols for transitional care  
Provided pre- and post-discharge transitional care (e.g., patient assessment, education, care coordination, and home visits) | Improved adherence to recommended changes in health behavior  
No differences in service utilization outcomes |
| Arbaje, et al., 2010 | 269 U.S. adults Hospitalized with mixed diagnoses Mean age > 79 yrs | Added an APRN, protocols for multidisciplinary transitional care, and documentation procedures  
Provided pre- and post-discharge transitional care (e.g., assessment, education, care coordination discharge summary transfer, and home phone call) | No difference in transitions quality outcomes or patient satisfaction |
Findings from a Literature Review of Transitional Care Studies

As shown in Table 1, all transitional care interventions added organizational supports to facilitate care delivery and provided transitional care services to prepare older adults for their transitions home. Transitional care interventions in all studies included three components: (a) new transitional care protocols for defining care objectives and coordinating care (Dedhia et al., 2009; Jack et al., 2009; Naylor et al., 2004); (b) added professional staff (n = 27 studies) or added staff duties (n = 5 studies) to existing staff; and (c) delivery of specialized transitional care processes to provide complete and consistent patient care. Study interventions used two broad approaches for delivering transitional care. Five studies, e.g., Bull, Hanson & Gross (2000) and Dedhia et al. (2009), used inpatient or “pre-discharge” interventions to prepare older adults for care transitions. Twenty-seven studies, e.g., Naylor et al. (1999) and Coleman, Parry, Chalmers & Min (2006), used combined pre- and post-discharge interventions to support patient transitions from hospitals to home. A variety of professional staff types were used to deliver care in reviewed studies, including registered nurses (Caplan et al., 2004; Dedhia et al., 2009; Jack et al., 2009), advanced practice nurses (APRN) (Coleman et al., 2006; Krichbaum, 2007; Naylor et al., 2004), social workers (Arbaje et al., 2010; Bull et al., 2000; Newcomer et al., 2006), or pharmacists (Crotty et al., 2004; Delate et al., 2008; Jack et al., 2009). The strength and intensity of interventions ranged from preparing and relaying “user friendly” discharge summaries (Balaban et al., 2008), intensive pre-discharge preparation only (Dedhia et al., 2009; Jack et al., 2009; Koelling et al., 2005),
pre-discharge services and short term post-discharge “transition coaches” (Coleman et al., 2006), and daily pre-discharge services with eight or more post-discharge home visits provided by APRNs (Naylor et al., 2004).

A broad range of transitional care processes (National Transitions of Care Coalition, 2008; Naylor et al., 2009) summarized in Table 2, were implemented to provide transitional care for older adults. Transitional care processes in the studies included: (a) comprehensive assessment and development of patient-centered plans of care (Allen et al., 2009; Caplan et al., 2004; Naylor et al., 2004), (b) emphasis on patient and caregiver preferences in planning (Coleman, Smith et al., 2004; Naylor et al., 1999; Shyu et al., 2008), (c) use of evidence-based practices to guide care (Jack et al., 2009; Koelling et al., 2005; Naylor et al., 2004), (d) patient and caregiver education about self-management (Allen et al., 2009; Huang & Liang, 2005; Sinclair et al., 2005), (e) patient and caregiver education about symptom warning signs and appropriate responses (Coleman et al., 2006; Delate et al., 2008; Koelling et al., 2005), (f) patient and caregiver education about transition planning (Bull et al., 2000; Koelling et al., 2005; Naylor et al., 2004), (g) discharge planning (Allen et al., 2009; Jack et al., 2009; Naylor et al., 1999), (h) referral tracking and appointment scheduling (Coleman et al., 2006; Harrison & Verhoef, 2002; Koelling et al., 2005), (i) medication reconciliation (Caplan et al., 2004; Dedhia et al., 2009; Delate et al., 2008), (j) information transfer to community providers (Balaban et al., 2008; Coleman et al., 2006; Stewart & Horowitz, 2002), and (k) written plans of care provided for patients at the time of discharge (Coleman, Smith et al., 2004; Jack et al., 2009; Naylor et al., 2004).
Table 2 Transitional Care Processes and Conceptual Definitions

<table>
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<tr>
<th>Care Process</th>
<th>Conceptual Definition</th>
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<tr>
<td>(a) Assess and plan care</td>
<td>Comprehensively assess needs, plan care and implement plans to address transitional care needs (Allen et al., 2009; Caplan et al., 2004; Naylor et al., 2004)</td>
</tr>
<tr>
<td>(b) Heed patient and caregiver</td>
<td>Maintain a holistic focus on patient and caregiver preferences and incorporate preferences into planning (Coleman, Smith et al., 2004; Naylor et al., 1999; Shyu et al., 2008)</td>
</tr>
<tr>
<td>(c) Use evidence-based practices</td>
<td>Ensure that plans for care transitions include clinical practices that are consistent with established best practices in care (Jack et al., 2009; Koelling et al., 2005; Naylor, 2007)</td>
</tr>
<tr>
<td>(d) Teach self-management</td>
<td>Encourage patients and caregivers to adhere to medical treatment plans and to use appropriate techniques for self-care (Allen et al., 2009; Huang &amp; Liang, 2005; Sinclair et al., 2005)</td>
</tr>
<tr>
<td>(e) Teach warning signs</td>
<td>Explain clinical warning signs and describe appropriate responses to changes in health or condition (Coleman et al., 2006; Delate et al., 2008; Koelling et al., 2005)</td>
</tr>
<tr>
<td>(f) Teach transition plans</td>
<td>Provide instruction regarding discharge and transition plans (Bull et al., 2000; Koelling et al., 2005; Naylor et al., 2004)</td>
</tr>
<tr>
<td>(g) Plan discharge</td>
<td>Arrange post-discharge resources for support at home (Allen et al., 2009; Jack et al., 2009; Naylor et al., 1999)</td>
</tr>
<tr>
<td>(h) Track referrals and appointments</td>
<td>Provide schedules of pending studies, referrals and appointments (Coleman et al., 2006; Harrison &amp; Verhoef, 2002; Koelling et al., 2005)</td>
</tr>
<tr>
<td>(i) Reconcile medications</td>
<td>Confirm that patients and community providers share a common, integrated plan for medication administration after discharge (Caplan et al., 2004; Dedhia et al., 2009; Delate et al., 2008)</td>
</tr>
<tr>
<td>(j) Transfer Information</td>
<td>Ensure timely, complete and accurate hand-offs of patient and clinical information between providers and settings of care (Balaban et al., 2008; Coleman et al., 2006; Stewart &amp; Horowitz, 2002)</td>
</tr>
<tr>
<td>(k) Provide written plans</td>
<td>Give patients and caregivers a written plan to guide care at home (Coleman, Smith et al., 2004; Jack et al., 2009; Naylor et al., 2004)</td>
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</table>

In 25 of 32 studies, transitional care interventions were associated with statistically and clinically significant improvements in patient outcomes (see Table 1).
These studies described significant, negative associations between transitional care interventions and mortality rates after discharge (Delate et al., 2008; Koelling et al., 2005; Stewart & Horowitz, 2002), re-hospitalization rates (Caplan et al., 2004; Krumholz et al., 2002; Naylor et al., 1999), emergency services utilization after discharge (Coleman et al., 2006; Dedhia et al., 2009; Harrison & Verhoef, 2002) and healthcare cost after discharge (Jack et al., 2009; Koelling et al., 2005; Naylor et al., 2004). Other outcomes of interest included significant, positive associations between transitional care interventions and measures of older adult preparedness for discharge (Bull et al., 2000; Coleman et al., 2006; Dedhia et al., 2009), follow-up with a primary care physician (Balaban et al., 2008; Caplan et al., 2004; Jack et al., 2009), quality of life (Harrison & Verhoef, 2002; Lin et al., 2009; Naylor et al., 2004), and functional outcomes such as walking (Lin et al., 2009).

**Applicability of Transitional Care Studies for Use in Nursing Homes**

In my review of clinical studies of transitional care, I learned that interventions, which added organizational support for transitional care and provided specialized care processes for older adults effectively prepared patients for their transitions from inpatient settings to home. Study interventions, which increased organizational support for transitional care, described useful strategies for organizing nursing home responses to the complexity and increased number of post-acute care patients. Three organizational supports, in particular, may be relevant in nursing homes, including those which: (a) increase organizational awareness that transitional care is a necessary service, (2) promote staff and team coordination of transitional care, and (3) enhance systems for
communicating clinical information among patients and healthcare providers. In addition, my review described empirical support for a set of transitional care processes (Table 2) that will be especially helpful for nursing home staff to use as they prepare older adults for transitions home. Since all studies explored interventions among older adults with mixed medical and surgical diagnoses, and in diverse care settings, study findings are likely to have broad applicability. I concluded from the review that added organizational supports and transitional care processes provide a useful framework for improving transitional care in nursing homes, including service assessment, staff development, and intervention research.

My review also identified threats to adaptation of transitional care interventions from acute care to nursing home settings. With the exception of one study (Newcomer et al., 2006), prior studies have not explored transitional care in nursing homes and no study has targeted the care needs of post-acute care patients. In addition, most reviewed studies (n = 25) added staff members to provide transitional care. Since added transitional care staff may be cost-prohibitive in nursing homes, further research is needed to understand if, and how, existing staff are providing transitional care in nursing homes.

The literature review suggests several new questions for research exploration. For example, is transitional care currently being provided by existing staff and, if so, how? Further, what interventions will foster the capacity of existing staff to address the needs of post-acute care patients, thus improving transitional care? Staff roles in nursing homes may be different from traditional physician-led care provided in acute care hospitals because in nursing homes, medical providers are largely absent and care is planned by an
interdisciplinary team. These differences in roles raise further questions. For example, what coordination and role definition is needed to develop and implement transitional care plans? How do post-acute care patients, family caregivers, physicians, social workers, nurses, and rehabilitation staff function as micro-systems of care (Wasson, Godfrey, Nelson, Mohr, & Batalden, 2003) to achieve effective transitions? As current hospital-based approaches to care are translated into nursing home settings, research will be needed to address these gaps in my understanding and foster transitional care capacity among existing staff.

Recent organizational research in nursing homes provides important guidance for exploring some of these unanswered questions (Anderson, Issel, & McDaniel Jr, 2003; Rantz, et al., 2004; Temkin-Greener, Cai, Katz, Zhao, & Mukamel, 2009). These studies found that the nature of relationships and interactions among nursing staff and patients is critical to achieving good outcomes; moreover, staff interactions and relationships may be untapped resources in nursing homes for promoting effective group interdependence for coordination of patient care (Anderson & McDaniel, 2008; Colon-Emeric, Lekan-Rutledge, et al., 2006; Mukamel, et al., 2006). Thus, as findings from transitional care interventions are moved into nursing home settings, assessment and improvement of staff relationships and interactions are likely to be important strategies for working with existing nursing home staff to improve transitional care quality. As noted by these researchers (Anderson & McDaniel, 2008; Colón-Emeric, et al., 2006), staff interactions that promote exchange of clinical information, staff connections, and the diversity of perspectives used in decision making may be especially useful.
Prior studies of transitional care primarily assessed long-term outcomes such as mortality and service utilization rates; thus, transitional care outcomes were measured weeks or months after hospital discharge and may not directly link care interventions to actionable process measures (Coleman, Smith, & Frank, 2002; Parry, Mahoney, Chalmers, & Coleman, 2008; Parry, Min, Chugh, Chalmers, & Coleman, 2009). Thus, process measures are needed to identify the strength and intensity of transitional care interventions that are most helpful for post-acute care patients. As described in a National Transitions of Care Coalition framework (2008), multiple perspectives (e.g., patient, family caregiver, and staff viewpoints) may be needed to ensure the accuracy of process measures.

**A Model to Guide Assessment of Transitional Care Quality in Nursing Homes**

In research to date, a resource has not been developed for evaluating the quality of transitional care that is provided by existing staff in nursing homes. Thus, in the following, I synthesize findings from studies reviewed above and propose a model to guide assessment of transitional care quality provided in nursing homes (see Figure 1). The theoretical foundations for the model were the Structure-Process-Outcomes Model of Healthcare Quality (Donabedian, 2005), a general framework for measuring transitional care quality (National Transitions of Care Coalition, 2008) and a conceptual model of staff interactions and nursing home quality (Anderson & McDaniel, 2008). The proposed model uses these theoretical foundations to organize review findings and describe four components of transitional care, including structure, care processes, interaction strategies and care outcomes.
Transitional care structures are the organizational supports which facilitate delivery of transitional care processes. Three transitional care structures may be essential for developing and supporting transitional care processes in nursing homes: (a) adequately-trained nursing home staff members (e.g., rehabilitation therapists, nurses, and physicians) who provide transitional care for patients and caregivers (National Transitions of Care Coalition, 2008); (b) organizational policies and other organization-
level mechanisms that guide, regulate, and coordinate staff transitional care activities (National Transitions of Care Coalition, 2008); and (c) protocols that support delivery of transitional care, including staff training materials, documentation procedures, routines for staff meetings and communication, and facility environments which may foster staff interactions. As theorized by Donabedian (2005), assessment of care structures may help to evaluate the adequacy of organizational supports for promoting transitional care processes.

Transitional care processes are actions undertaken by nursing home staff to prepare older adults for safe transitions to home. Based on prior descriptions of transitional care (National Transitions of Care Coalition, 2008; Naylor et al., 2009) and my review findings, eleven transitional care processes promote coordination and continuity of care for older adults who transition to home (see Table 2). As described by Donabedian (2005), care processes directly influence patient outcomes; thus, assessment of transitional care processes in nursing homes will pinpoint the activities among staff which directly shape the quality of older adult transitions. For example, by assessing the way that nursing home staff hand-off clinical information to community providers, it will be possible to identify gaps in services aimed at providing continuity of care.

Staff interaction strategies are behaviors that promote staff connections, information exchange and diversity of opinions for problem solving (Anderson & McDaniel, 2008). Through their influence on care processes, interaction strategies are also strongly related to nursing home care quality (Anderson, et al., 2005; Colon-Emeric, Lekan-Rutledge et al., 2006; Piven, Anderson, Colon-Emeric, & Sandelowski, 2008).
Thus, in my model (Figure 1), I target interaction strategies for evaluation because they are thought to influence how groups of nursing home staff collaborate when they provide transitional care (see Anderson & McDaniel, 2008). Moreover, examining the influence of interaction strategies on transitional care processes may be a critical step in translating hospital-based studies to nursing homes. For example, the proposed model targets assessment of information exchange, one of the primary responsibilities of added professional staff in the reviewed studies. By assessing the way transitional care staff in nursing homes exchange information, managers and staff will have opportunities to learn how staff interactions influence information exchange and thereby shape the effectiveness of transitional care.

Transitional care outcomes are indicators of the degree to which effective care processes are correctly or adequately provided (Donabedian, 1980, 2005). Based on prior models of transitional care outcomes assessment (National Transitions of Care Coalition, 2008) and studies in the review, my model identifies three outcome measures of transitional care that will be useful in nursing home practice and research: (a) patient self-assessment of their preparedness for discharge, (b) staff assessment of care processes and the completeness of transitional care planning, and (c) organization-level measures of the transitional care outcomes. With outcome measures that identify direct linkages between transitional care processes and patient outcomes, nursing home leaders and researchers will be positioned to estimate the effect of staff interventions on patient outcomes.

To summarize, the proposed model for assessing transitional care in nursing homes describes relationships between transitional care structures, care processes,
interaction processes and care outcomes. Moreover, using theory from Donabedian (2005) and Anderson (2008), the proposed model identifies potential gaps in these relationships that may be important targets for future efforts to increase the capacity of existing nursing home staff to provide transitional care. The guide only includes the linear, unidirectional relationships that are suggested by Donabedian (2005). However, it is likely that the relationships among the structure, process, and outcome variables are more complex than depicted and these complexities must be explored in future research.

**Discussion of the Review and Proposed Guide for Assessing Care**

Findings from the review underscore the need to develop increased transitional care capacity among staff members in nursing homes. Short stay, post-acute care patients are a growing population internationally, and epidemiological data indicate that they are especially vulnerable to complications as they transition from nursing homes to home. Thus, although I know that nursing home patients transition from nursing homes to home, the extent to which transitional care is planned and systematically provided remains unknown. Findings from my review and the proposed guide for assessing transitional care have important implications for efforts to improve transitional care practice, education and research in nursing homes.

First, the proposed guide for assessment provides a concrete model for nursing home leaders and administrators to evaluate the quality of care in their facilities. The proposed guide supports concrete next steps in assessment of nursing homes. For example, with the model, administrators might ask to what extent are policies in a facility explicitly designed to prepare older adults to continue care at home? Do transitional care
processes used in the facility address the full range of services required to prepare older adults for transitions home? Do staff members actively seek out and integrate multiple points of view as they make transitional care plans? Does the facility use measures that assess the quality of transitional care outcomes at the point of service? With answers to these questions, changes in transitional care practices may be achieved at the level of individual facilities.

Second, findings from the review and the proposed guide have implications for staff and trainee education. Perhaps most significantly, nursing home staff members may lack awareness that transitional care is a critical aspect of their roles. In my evaluation of study interventions, I identified a set of care processes that were effective strategies for preparing older adults for transitions to home. Using this list of transitional care processes, educators will have a useful starting point for engaging students of nursing, medicine, social work, and rehabilitation science, and raising awareness of care processes that assist older adults with transitions home.

Finally, the proposed guide for assessing transitional care provides a framework to explicitly describe transitional care provided in nursing homes and to identify gaps and inconsistencies in care which may compromise patient outcomes after discharge to home. The proposed guide will be a useful tool for next steps in research, including descriptions of the structures, processes, interactions and outcomes of transitional care in patient care-teams, development of a measure of preparedness for discharge, testing of new teaching materials for nursing home staff, and intervention studies aimed at improving the safety of older adult transitions from nursing homes to home. Because the proposed guide
focuses on how interactions among existing staff promote care, the new research may also help to identify cost-effective ways for providing transitional care.

**Conclusion**

Transitional care, though effective in prior hospital-based studies, has not been studied in the context of post-acute care in nursing homes. Moreover, prior studies have not explored the way that interactions among existing nursing home staff foster interdependent work practices needed to improve care coordination without adding new staff. In this review, I have proposed a new guide for assessing transitional care in nursing homes. This guide may be a resource for focusing transitional care practice, education and research in nursing homes.
3. Transitional Care for Post-Acute Care Patients in a Nursing Home

The purpose of this paper is to describe nursing home structures, care processes, and staff interactions that shape transitional care and its outcomes for older adults who receive post-acute care in a nursing home. Designed “to improve continuity and coordination of care for older adults and their caregivers as they transfer between settings and providers of care” (Coleman & Boult, 2003, p. 549), transitional care has proven to be a reliable means for preparing older adults for transitions in care from hospitals to home (Coleman et al., 2006; Jack et al., 2009; Naylor et al., 2004). Scant research has described transitional care for post-acute care patients in nursing homes and no studies have explicitly described transitional care that is provided by existing nursing home staff. Without evidence to guide care, it is understandable that transitions in care, such as those from nursing homes to home, are thought to be perilous for older adults (Forster, Murff, Peterson, Gandhi, & Bates, 2003; Kripalani, LeFevre et al., 2007; van Walraven et al., 2004). Moreover, epidemiological studies suggest that multiple care transitions, such as trajectories of care from home to hospitals to nursing homes and home again, significantly increase older adult risks for adverse health events, emergency department utilization, and/or re-hospitalization (K. S. Boockvar et al., 2004; Coleman, Min et al., 2004; Kind et al., 2007; Murtaugh & Litke, 2002; Wolff, Meadow, Weiss, Boyd, & Leff, 2008). Since 1999, the annual utilization of post-acute care services has increased 32%, from 1.4 to more than 1.8 million patients per year (Ng et al., 2010); thus, descriptions of transitional care in nursing homes are urgently needed to identify potential gaps and
inconsistencies in care that may be future targets for intervention (American Medical Directors Association, 2009; Naylor et al., 2009).

Although no published reports of post-acute care nursing home patient transitions are available, studies indicated that older hospitalized patients who transition home are often unprepared to continue or coordinate care at home (Coleman & Boult, 2003; Sofaer, 2009); research cites hospital staff failures to explain medications and treatments (Makaryus & Friedman, 2005; Pieper et al., 2007); to provide written treatment plans and care instructions (Weaver et al., 1998); and to transfer vital clinical information to community providers (K.S. Boockvar, et al., 2004; Kripalani, LeFevre et al., 2007). Thus, transitional care interventions have been developed to foster safer transitions for older adults that transfer from hospitals to home (Kripalani, Jackson et al., 2007). These interventions added organizational support for transitional care, professional staff to work directly with older adults, and protocols for specialized transitional care processes (Chiu & Newcomer, 2007; Naylor et al., 2009). These interventions reduced rates of rehospitalization and emergency department utilization (Coleman et al., 2006; Dedhia et al., 2009; Naylor et al., 1999).

Findings from hospital-based studies, however, may not translate directly to nursing homes. First, compared to hospitalized patients who transfer directly to home, older adults who receive post-acute care in nursing homes are more often frail, cognitively impaired, and require greater daily support (Coleman, 2003; Gill et al., 2009; Mason et al., 2009). Second, nursing home staff members, who care for post-acute care
patients, usually have lower educational levels and higher rates of turnover (Kilgore, 2009; Parmelee et al., 2009). Third, “short stay’ patients are a subgroup of older adults with unique care needs to be addressed by nursing homes in which long-term patients have traditionally been the focus of care (Newcomer et al., 2006). Finally, the use of added staff to deliver care in hospital-based interventions may be cost-prohibitive in nursing homes, where use of professional staff continues to decline (Kim, Harrington et al., 2009; Kim, Kovner et al., 2009).

The purpose of this paper is to describe nursing home structures, care processes, and staff interactions that shape transitional care and its outcomes for older adults who receive post-acute care in a nursing home.

![Figure 2 Conceptual Model of Transitional Care](image)

Using findings from a literature review (Toles, et al., under review) and a pilot study, I developed a conceptual model, based on Donabedian’s Model of Healthcare Quality (Donabedian, 1980), to guide my research. With the conceptual model, I studied transitional care using four concepts: (a) care structures, the fixed institutional characteristics and resources used to support transitional care processes; (b) care
processes, the tasks and work patterns through which staff members prepare older adults for safe transitions to home; and (c) care outcomes, assessment of patient preparedness for transition to home by the patients themselves, staff members, and the principal investigator (Donabedian, 1980; National Transitions of Care Coalition, 2008). Further, using an adaptation of Anderson’s Model of Local Interaction (Anderson & McDaniel, 2008), I explored a fourth concept, how nursing home staff interactions influenced transitional care processes. Anderson described three system parameters in nursing homes - information exchange, relationship-building, and cognitive diversity - which are shaped by the interactions among staff members in nursing homes (Anderson & McDaniel, 2008; Colon-Emeric, Lekan-Rutledge et al., 2006). I observed these staff interactions and sought to describe ways that they modified the effectiveness of transitional care processes.

**Design and Method**

I conducted a longitudinal, multiple-case study (Anderson, Crabtree, Steele, & McDaniel, 2005; Barley & Kunda, 2001; Pettigrew, 1995) to prospectively explore strengths, gaps and inconsistencies in transitional care provided by existing staff for post-acute care patients in a nursing home. Patient care-teams comprised “cases” in my research. Informed consent was obtained from all participants and procedures were approved by a university institutional review board.
Setting, sample and procedures

The study setting was a skilled nursing facility (SNF) in a continuing care retirement community. The SNF was purposefully selected because (a) it had greater than average scores on quality indicators in Nursing Home Compare and (b) anecdotally, it had a positive reputation in the community for post-acute care. The facility had no dedicated “transitional care unit” and admitted post-acute care patients to units with long term care patients; approximately 10-15% of the facility’s patients were admitted for post-acute care and 85-90% were undergoing long-term care.

I recruited three patient care-teams from this SNF to participate; each team included one post-acute care patient, a family caregiver and the group of professional staff who provided transitional care (e.g., physicians, nurse practitioners, licensed practical nurses (LPNs), social workers, rehabilitation therapists, and dieticians). Inclusion criteria for post-acute care patients were an expected length of stay of 15 to 45 days and clinical presentations that differed from patients previously enrolled; exclusion criteria included moderate to severe cognitive impairment (Rantz, et al., 2006) and inability to speak English. Inclusion criteria for staff were that they had a role in transitional care activities and were willing to participate. Family caregivers were included when they were available and willing to participate. In total, 20 staff members, 2 family caregivers and 3 patients provided data, collected from 89 interviews, 118 direct observations and 70 chart and document reviews. The amount of data collected for each case study was similar.
Data collection

The principal investigator collected data on the three cases, consecutively, over five months. Using procedures developed in a feasibility study, data collection was guided by my conceptual model, targeting transitional care structures, care processes, staff interactions and their influence on post-acute care patients’ preparedness for transitions to home. Field observations of meetings, rounds, and patient care activities were used to explore care-team members’ work, interactions, and patient responses to care. Additional informal interactions were captured by observing chance encounters among care-team members (Anderson, Crabtree et al., 2005; Barley & Kunda, 2001). Observation data (n = 118) were recorded by hand and transcribed daily for analysis. Unstructured interviews, recorded by hand, were used to clarify observations. Semi-structured interviews were audio recorded and were used to explore transitional care and perceptions of patients’ preparedness for safe transitions home. Interview data (n = 89) were transcribed daily for analysis. Data were collected longitudinally with periodic follow-up observations or interviews with all care-team members over the duration of post-acute care treatment (mean = 25 days). Data from medical charts (e.g., clinician, nurse, rehabilitation therapy, social worker notes) and case documents (e.g., patient discharge documents) were also recorded by hand and transcribed to Word files. Procedures were followed to maintain rigor, such as: (a) use of protocols developed in a feasibility study to increase dependability; (b) iterative data collection and preliminary analysis to increase credibility; (c) triangulation of data sources and case comparisons to
increase confirmability; and (d) purposive sampling and rich detail to increase transferability. Anonymity and confidentiality of participants was protected by de-identifying data and removing contextual details in case reports.

**Analysis**

Using *a priori* codes from a literature review and conceptual model (Toles, et al., 2010; Toles et al., under review), the principal investigator coded all data using manifest content analysis techniques, a qualitative method for exploring visible, obvious meaning (Hsieh & Shannon, 2005). Accuracy and consistency of coding was confirmed with redundant coding of a random sample of 10% of the data; agreement between coders was greater than 95%. In within-case analyses (Miles & Huberman, 1994), concepts in my model of transitional care were used to condense the coded data into thematic groups (Silverman & Marvasti, 2008). When all data were thematically grouped, narratives were written and tables were developed to describe strengths, gaps, and inconsistencies in four main transitional care themes, including structures, processes, interactions and outcomes for each case study. Further, these within-case descriptions were used to describe the relationships between structures and care processes; staff interactions and care processes; and care processes and outcomes. In between-case analyses (Miles & Huberman, 1994), findings from each case were searched to identify common patterns in the strengths, gaps, and inconsistencies of transitional care across cases.
Findings

Care-teams included older adults with varying age, demographic backgrounds, post-acute care needs, family supports, and professional caregivers (Table 3).

**Table 3 Description of Patient Participants, Post-Acute Care Needs, and Disposition**

<table>
<thead>
<tr>
<th>Older Adult</th>
<th>Needs for Post-Acute Care</th>
<th>Care-team Members (n=20) and Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Case X</strong></td>
<td>Completion of intravenous antibiotics</td>
<td>(A) Care-team: geriatrician, geriatric NP, 3 rehabilitation therapists, primary LPN, social worker and dietician.</td>
</tr>
<tr>
<td>68 year old</td>
<td>for endocarditis and rehabilitation for</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>de-conditioning from hospitalization</td>
<td></td>
</tr>
<tr>
<td>female</td>
<td>and severe chronic pulmonary disease.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family did not consent for participation.</td>
<td></td>
</tr>
<tr>
<td><strong>Case Y</strong></td>
<td>Wound care for an abdominal abscess</td>
<td>(A) Care-team: geriatrician, geriatric medical fellow, 2 rehabilitation therapists, primary LPN, social worker and dietician.</td>
</tr>
<tr>
<td>90 year old</td>
<td>following bowel resection and re-conditioning (history of right pulmonectomy). The family caregiver (n=1) was frequently involved.</td>
<td>(B) Disposition: Discharged to home after 22 days in the facility.</td>
</tr>
<tr>
<td>Caucasian female</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rehabiliation after right knee surgery,</td>
<td>(A) Care-team: geriatrician, geriatric NP, 2 rehabilitation therapists, primary LPN, social worker and dietician.</td>
</tr>
<tr>
<td>85 year old</td>
<td>complicated by residual left-sided weakness from a prior stroke. The primary family caregiver (n=1) was disabled.</td>
<td>(B) Disposition: Discharged to home after 24 days in the facility.</td>
</tr>
<tr>
<td>Caucasian male</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*NP – nurse practitioner; LPN – licensed practical nurse

Findings are organized by the concepts in my model: structures, processes, staff interactions, and outcomes. Moreover, based on hypothesized relationships between these concepts (Figure 2), I proposed explanations about how transitional care structures and staff interactions influence the effectiveness (outcomes) of transitional care processes. I use the following nomenclature to maintain anonymity of participants: “staff
member” refers to professional care-team members; “patient” refers to older adult, post-acute care patients; “caregiver” refers to nonprofessional caregivers such as family members.

**Structure**

Transitional care structures were the fixed institutional characteristics and resources in the SNF that facilitated transitional care processes (Donabedian, 1980; National Transitions of Care Coalition, 2008; Toles et al., under review). My findings about structure are described in three themes: organizational structure, human resources, and departmental routines.

**Organizational structure**

Organizational structures supported systematic delivery of many care processes, such as rehabilitation therapy and nursing care; however, no structures specifically facilitated transitional care. The nursing facility lacked organizational goals for providing transitional care, strategies for achieving goals, or protocols for coordinating or monitoring essential transitional care processes. Notably, there were no protocols to facilitate evidence-based transitional care processes, such as transfers of clinical information to primary care providers (Coleman et al., 2006; Naylor et al., 1999), provision of detailed written plans and instructions for patients and caregivers (Coleman et al., 2006; Naylor et al., 1999), or systematic inclusion of family caregivers in planning related to care and discharge (Bull et al., 2000; Naylor et al., 2004). There was also a
facility-wide lack of knowledge about transitional care. For example, a staff person commented:

Transitional care…is for those people that will stay here [in the continuing care community]…as far as those that are going home I would probably look at that as a discharge…you would be transitioning them…but they would be…well enough to go home and stay at home.

This lack of awareness of transitional care, at the organizational and individual levels, was one of the more dramatic and, perhaps, more easily remediable findings in my study.

**Human resources**

Transitional care was supported by consistent staff assignments and frequent face to face encounters between patients and care-team members. Patient care-teams were comprised of board certified geriatricians (n=3 cases), board certified gerontological nurse practitioner (n=2 cases), licensed practical nurse (n=3 cases), rehabilitation therapists (n=3 cases), social workers (n=3 cases) and dietician (n=3 cases). Over post-acute care stays, the average number of professional staff and patient face-to-face encounters included 2 with physicians, 5 with nurse practitioners, 16 with physical therapists, 14 with occupational therapists, 4 with social workers, and 3 with the dietician. In addition, patients had a “primary” licensed practical nurse (LPN), who was consistently assigned to provide nursing care (on average, 16 of approximately 24 patient
days in the SNF). I noted that no care-team members had specialized training in transitional care.

Without structures to facilitate care, staff member roles as transitional care providers were poorly coordinated. Care-team members described their roles as follows: (geriatrician) “establish the medical treatment plan with the nurse practitioner, patient and family,” (nurse practitioner) “fine tune things…so [patients] can get back home,” (LPN) “pass medications, give treatments, and track down orders,” (social worker) determine “what will be needed for care giving at home,” (rehabilitation therapist) “focus on safety and energy conservation.” However, no staff member’s role was to help patients integrate and synthesize a plan for continuing care at home, or to relay plans of care to community providers; thus, care was often fragmented. A social worker commented:

Not everyone sees the whole picture…PT may say [the patient] is strong enough because she’s able to walk…OT may say she’s able to do her personal care…But I have to look at all those…plus the living situation and all those dynamics.

Social workers carried caseloads of 60 patients and the enormity of their stated role conflicted with their intentions to integrate care; further, the absence of systemic structures to coordinate transitional care may have made their attempts more difficult.

**Departmental routines**

Some aspects of transitional care processes appeared to emerge from departmental routines. There were structures for utilization review – facility managers, department heads and some care-team members (including social workers and the dietician)
participated in meetings twice weekly to review ongoing rehabilitation needs for post-acute care patients. There was limited departmental structure for assessing patients’ progress toward goals. Rehabilitation staff members collaborated closely with each other and had a system in place for emailing therapy progress summaries to other care-team members. There were structures for coordinating medical care – physicians, nurse practitioners and geriatric fellows planned medical care with each other through routine face-to-face, phone and email communication. There were also scheduled days or times for nurse practitioner, physician, and rehabilitation therapist visits to nursing units; thus, care-team members were able to anticipate opportunities to visit about patient plans and changes in condition.

Organizational structures to support care plan development were especially under-developed. Even though the minimum data set nurse was responsible for post-acute care planning, a staff member reported that her role was “designed for long stay patients” and that, “It really does not work for short stay [post-acute care] patients.” When asked what systems were in place to integrate planning for short stay patients, a staff member answered:

Staff will use their experience, help from the…nurse practitioner, and orders from the doctors, and just do what needs to be done.

This staff member comment and my field observations suggest that staff professionalism, care-team expertise and departmental routines provided fragments of structure that minimally supported transitional care processes in the nursing facility. In addition, these
same fragmentary supports may have buffered equally deficient supports for processes related to care planning.

Process

Transitional care processes were the tasks and mechanisms through which care-team members prepared post-acute care patients for safe transitions to home (Donabedian, 1980; National Transitions of Care Coalition, 2008; Toles et al., under review). I observed that transitional care processes commonly emerged from care-team member routines designed for other purposes; thus, they were often uncoordinated and incomplete. In Table 4, I summarize my across-case findings of strengths, gaps and inconsistencies in transitional care processes; individual care processes were rated as a “strength” if it was commonly observed or reported; “gap” if it was rarely observed or reported; or “inconsistent” if it was fragmentary or irregularly observed or reported.

Table 4 Translational Care Processes Observed in Three Case Studies

<table>
<thead>
<tr>
<th>Transitional Care Process</th>
<th>Case X</th>
<th>Case Y</th>
<th>Case Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assess and prepare treatment plan</td>
<td>inconsistent</td>
<td>inconsistent</td>
<td>inconsistent</td>
</tr>
<tr>
<td>Heed preferences</td>
<td>inconsistent</td>
<td>strength</td>
<td>strength</td>
</tr>
<tr>
<td>Encourage and activate patient and family</td>
<td>strength</td>
<td>strength</td>
<td>strength</td>
</tr>
<tr>
<td>Teach self-management</td>
<td>inconsistent</td>
<td>inconsistent</td>
<td>inconsistent</td>
</tr>
<tr>
<td>Teach warning signs and responses</td>
<td>inconsistent</td>
<td>gap</td>
<td>strength</td>
</tr>
<tr>
<td>Teach transition plan</td>
<td>gap</td>
<td>gap</td>
<td>gap</td>
</tr>
<tr>
<td>Reconcile medications</td>
<td>strength</td>
<td>strength</td>
<td>strength</td>
</tr>
<tr>
<td>Plan discharge (e.g., referrals and family supports)</td>
<td>inconsistent</td>
<td>inconsistent</td>
<td>inconsistent</td>
</tr>
<tr>
<td>Schedule and track follow-up</td>
<td>inconsistent</td>
<td>gap</td>
<td>inconsistent</td>
</tr>
<tr>
<td>Transfer information to community</td>
<td>gap</td>
<td>gap</td>
<td>gap</td>
</tr>
<tr>
<td>Provide written plans to patient</td>
<td>gap</td>
<td>gap</td>
<td>gap</td>
</tr>
</tbody>
</table>
**Transitional care emerges from departmental care processes**

Throughout patients’ stays in the SNF, team members attended to patients’ goals, motivations and preferences for care and preferred learning styles. One staff member explained:

The patient worked with us but he wants to work on his terms…we learned along the way to let him work through it…telling us what he thought he could do, allowing him some freedom…while we were right there so we could jump in where we needed to.

An unexpected finding was the absence of family caregivers in these assessments, teaching sessions and planning. Lacking explicit transitional care structures, highly patient-centered transitional care was fragmentary, emerging as team members completed departmentally-driven care processes.

In the work in some departments or disciplines, delivery of care processes was timely and well-organized. The dietician’s work, for example, targeted weight maintenance, effective eating mechanics, and dietary support for disease processes and medical regimes. For one patient, the dietician stated, “I tried to prepare [the patient] to go home. I educated her about the Lactaid and green vegetables with Coumadin use.” The dietician visited this patient periodically, four times, always attempting to integrate patient preferences with evidence-based dietary recommendations. Similarly, the occupational therapist, in 17 face-to-face visits with this patient, methodically focused care by setting discipline-specific objectives, e.g., independence and safety at home. The occupational therapist stated, “We made sure that the patient built her strength up and
learned safe ways for moving around…I taught her to use the walker…and to make sure her oxygen is out of the way so it’s not a trip hazard.” Sometimes, however, limitations in organizational structure over-extended or under-supported care-team members; in these departments, completion of care processes was poorly organized. For example, discharge planning was a common frustration among staff members:

Then there is the care for preparing people to go home – education, work with therapy, discharge planning…We need to start the discharge planning process earlier…we should be able to sit down with the patient and say, ‘You will leave in so many weeks.’ Then we can sit down and plan it.

In all three cases, busy social workers coordinated discharge planning, sometimes entirely focused on obtaining referrals without explaining the frequency, cost and duration or services to patients or their family caregivers. In two cases, patients learned details regarding their insurance coverage for home care in the last days of admissions; in both cases, these last-minute arrangements were a source of confusion and frustration for patients. The late notification also precluded advanced planning with patients and created stressful flurries of work for nurses, clinicians, and community agencies.

However effectively individual departmental care processes were completed, I found no evidence of a care process designed to integrate planning or explicitly develop transitional care plans for post-acute patients. The care process for medication reconciliation offered a glimpse of how such integrated care might develop. In this care process, collaboration among a pharmacist, clinicians, LPNs, patients and sometimes family caregivers resulted in definitive lists of medications and plans for patient’s
medication administration at home. The careful design in the medication reconciliation care process, however, contrasted starkly with gaps in care related to (a) development of written plans for patients, (b) information transfers to community providers, and (c) scheduling of referrals and appointments. Although *pro-forma* discharge summaries were prepared, no care process existed to develop complete written reminders of new self-management strategies and supports to be used at home. The same was true for scheduling follow-up appointments and information transfers to the community. Without coordination, these processes were entirely clinician driven. Where clinical staff wrote orders to schedule appointments or send-out clinical information, transitional care processes emerged; where orders were absent, there were gaps in care.

Well-developed strategies were evident in all cases to engage, encourage and activate patients in their own care. As one staff member explained:

I tried to tell her it will get better…I even told her and continued to tell her about nutrition and that it would be very good and help – I tried to encourage her in everything else.

As noted by Naylor (1999) and Coleman (2006), patient engagement is an essential element in many transitional care processes; I observed dedication to this time-consuming task among staff throughout the SNF.

**Interactions**

Local interaction strategies (Anderson & McDaniel, 2008) were behaviors that increased the rate or intensity of three broad system parameters in care-teams, including
member connections, information exchange and cognitive diversity. I observed that behaviors among care-team members influenced these system parameters; specifically, with more intense and frequent local interaction strategies (LIS) care-team members more effectively adapted transitional care structures and processes to patient needs. In Table 5, I summarize my findings describing the intensity or frequency of local interaction strategies across cases.

**Table 5 Local Interactions Observed in All Case Studies**

<table>
<thead>
<tr>
<th>System Parameter</th>
<th>Local Interaction Strategies</th>
<th>Gap</th>
<th>Inconsistent</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connections</td>
<td>Show respect and gratitude</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coach and mentor</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Be approachable</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pitch-in</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Information Exchange</td>
<td>Listen</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Give and receive information</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Explain and verify meaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive Diversity</td>
<td>Pay attention</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ask questions</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suggest alternatives</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Give and receive feedback</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Encourage participation in decision making</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

**Staff connections and the formation of communication networks**

Within hours of new patient admissions, SNF staff members self-selected or were assigned to participate in the patient’s care. There was no structure in the SNF to formally guide which staff members would contribute to any given patient’s transitional care-team. Rather, “care-teams” were emergent, inconsistently acknowledged entities, which staff members discovered through informal communication channels, such as word
of mouth, documentation in admission paperwork, and chance encounters on units. A staff member noted:

We’ve got a system that works…on Mondays and Thursdays we just talk…we don’t necessarily like have it scheduled…I just know I’m going to see physical therapy, and see social work, I know I’m going to see the nurses and try to check in with them first.

Thus, through informal interactions (“a system that works”), staff members shared information and discovered their inter-connections in a patient’s care, thus constituting an emergent care-team. These same informal staff connections and conversations also precipitated care processes which influenced transitional care provided in the SNF. For example, clinical leaders in the facility were easily approachable and readily pitched-in to help staff; thus, by spanning disciplinary boundaries and bringing staff together, they helped to integrate care. A nurse practitioner described her role in this process as follows:

I might be the cruise director. I’m not necessarily always captain of the ship, but I make sure that people know what the schedule is, what the expectation is, and I communicate some of that.

Observations confirmed that the nurse practitioner’s interactions with staff members fostered relationships and networks for communication. Moreover, informal interactions, such as these, facilitated care team members in adapting care processes to the individual needs of patients.
The effects of these adaptations on transitional care were most evident in care-team management of unexpected events in care that emerged in two cases. In one case, care team members struggled to adapt transitional care processes to the recalcitrant, nearly fatalistic preferences of a patient who only wanted to go home and rest. The LPN who worked with her, routinely giving medications and exploring limits, established a tenuous relationship with the patient which had dramatic effects near the day of discharge. When a cascade of discharge orders arrived, this relationship facilitated the only team connection with family members in the case, thereby permitting at least some preparations for care at home. Similarly, in a second case, care-team members approached a near crisis as a frail patient, with left-sided weakness and new knee surgery on the right knee, gave up on rehabilitation and prepared to leave against medical advice. Care-team information feedback loops created a web of interactions around this patient, continuously re-emphasizing participation needed for a quick return home, and coaxing him toward acceptance of rehabilitation goals. This ultimately led to discharge to home with day-long paid caregiver supports in place. In both cases, literal transitional care processes (e.g., planning, teaching, discharge planning, and patient encouragement) were completed; however, interactions among care-team members, which promoted connection, information exchange, and opportunities to share opinions, appeared to propel the care processes toward acceptable outcomes in care. Some caregivers worked outside of these interactive networks; a staff member stated:
I work with [the LPN]…she is very helpful and always here… I rarely have the chance to speak with the therapists. Often I get information late. In these instances, partial information and last minute decisions compromised the potential for making adequate transitional care preparations.

**Outcomes**

Care outcomes, as measured in my research, describe proximal health outcomes which reduce risks for older adult errors or omissions in care following the transition from the SNF to home. Thus, care outcomes were patient, staff and principal investigator assessments of care-team completion of core transitional care processes, which were identified in my review of transitional care intervention studies (Donabedian, 1980; National Transitions of Care Coalition, 2008; Toles et al., under review). In Table 6, I summarize my across-case findings of the completeness of transitional care process. Further, the degree to which the objectives of transitional care processes were met is categorized as follows: objectives that were fully met are shown as “Complete,” those that were partially or inconsistently met are shown as “Partial,” and those that were not at all met are shown as “Absent.” The count of case study outcomes in each category is given.
Table 6 Observed Transitional Care Outcomes

<table>
<thead>
<tr>
<th>Transitional Care Process</th>
<th>Count of Cases with Care Process Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete</td>
</tr>
<tr>
<td>Has transitional care plan</td>
<td></td>
</tr>
<tr>
<td>Knows transition plans</td>
<td></td>
</tr>
<tr>
<td>Obtains patient’s preferred outcome</td>
<td>2</td>
</tr>
<tr>
<td>Demonstrates skill with new self-management strategies</td>
<td>2</td>
</tr>
<tr>
<td>Knows appropriate responses to changes in health</td>
<td>1</td>
</tr>
<tr>
<td>Obtains needed discharge referrals and supports</td>
<td>3</td>
</tr>
<tr>
<td>Has a schedule of referrals, appointments and follow-up</td>
<td></td>
</tr>
<tr>
<td>Knows correct medication to use at home</td>
<td>3</td>
</tr>
<tr>
<td>Information is transferred to community providers</td>
<td>1</td>
</tr>
<tr>
<td>Has a complete written plan to guide care at home</td>
<td></td>
</tr>
<tr>
<td>Feels motivated and able and to carry out planned care</td>
<td>2</td>
</tr>
</tbody>
</table>

Description of outcomes

Post-acute care patients, in all cases, were discharged with (a) adjustments in medical care to treat ongoing disease processes, (b) new skills for self-care and instructions for continued rehabilitation, (c) appropriate referrals (e.g., home care) for support and health maintenance, (d) encouragement to carry out new treatments and aftercare plans, and (e) properly reconciled medications with very good training for medication self-administration.

Post-acute care patients were not consistently discharged with (a) medical follow-up appointments, (b) information transfer to community providers, and (c) new knowledge of how they should respond to acute changes in health. Finally, though patients were given a discharge planning form, no post-acute care patient went home with
a complete written plan that included a schedule, planned treatments, and a guide for care.

Moreover, post-acute care patients, in all cases, transferred home with only a fair understanding of poorly integrated transitional care plans. For example, in the first case study, care-team members accomplished many care objectives to prepare a frail older adult for the transition home: (a) the patient had accepted the need for a high risk antibiotic to reduce the risk of recurrent infection; (b) she had learned strategies to minimize side effects such as fever from the new medication; (c) she had learned a new strategy for chewing that reduced the risk for oxygen de-saturation while eating; (d) she had been helped to mobilize family members which increased support for her primary caregiver; and (e) among other supports, she had also been given referrals for multiple home care services and three immediate medical follow-up appointments. All of this care was accomplished in just over three weeks. However, this very ill, homesick, and frustrated older adult had no person to help her identify, organize, and integrate the many preparations for her safe transition home. On the day before discharge, this patient stated, “I learned nothing up here. I don’t need any of them or any of their services.”

Interviews with older adults in two other cases echo this patient’s complaint and suggest that services without integrated transitional care planning may have been overwhelming. In one case, an older adult reported:

We’ve gone over so many things to do and ways to take care of myself but I have not found someone to talk about it with...I do not know whether to stay here or go.
A third patient said:

I need to get this quad muscle healed so I can walk again. The only question is whether I am too optimistic, or are they too pessimistic? I don’t know.

Thus, in this otherwise high-performing SNF, outcomes from care processes which rendered transitional care were mixed. Patients were given many new tools and supports; however, lacking needed transitional care to complete and integrate preparations for transitions home, many hard won gains were lost.

**Discussion**

Health care transitions from nursing homes to home are potentially dangerous events among older adults, associated with unacceptably high rates of subsequent emergency department use and hospital readmission (Coleman, Min et al., 2004; Murtaugh & Litke, 2002). The dangers from transitions in care and the complexity of care to prevent them have made transitional care a critical research priority for increasing patient safety and satisfaction. Prior studies rarely address transitional care for post-acute care patients; the few that exist emphasized care outcomes but neglected important structural and procedural aspects of care. This exploratory study addressed some of these shortcomings by analyzing data from a prospective, multiple case study that described the emergence of transitional care outcomes from an array of structures, care processes and staff interactions. Analysis of this context-rich data allowed us to explicitly describe transitional care provided in a SNF, knowledge needed to intervene and improve transitional care for post-acute care patients.
Studies of discharge planning re-design (Jack et al., 2009) and transitional care planning with extended case management (Coleman et al., 2006; Naylor et al., 1999; Naylor et al., 2004) provide strong empirical support for the value of efforts to plan and prepare older adults for care transitions to home. My findings, that advanced planning and self-management education promoted older adults’ preparedness for transitions to home, support this prior research and extend findings from prior research to the nursing home setting of care. Further, studies of staff interactions and nursing home performance (Anderson et al., 2003; Colon-Emeric, Lekan-Rutledge et al., 2006; Rantz, Flesner, & Zwygart-Stauffacher, 2010) indicate that connections, information exchange and opportunities to participate in decision making increase the effectiveness of care in nursing homes. My case study data describe a strong relationship between informal interactions and the ability of care-team members to react to crises in care and to coordinate diverse care processes; moreover, my findings extend the findings of these prior studies to transitional care processes. Thus, study findings extend earlier research and provide potentially useful new resources for addressing the transitional care needs of older adults who receive post-acute care in nursing homes.

There are some limitations in my study. This exploratory research was conducted in a single SNF, which limits generalizability of my findings. Selecting a SNF with known above-average performance further limits generalizability. My strategies for assuring rigor in data collection and analysis in the study, however, support the validity
Findings from the research have significant implications for understanding care transitions and supporting health care needs for a vulnerable group of older adults. First, the study supports the applicability of hospital-based transitional care processes in nursing homes and provides an initial resource for promoting staff and manager awareness of transitional care. Second, the study suggests that transitional care is shaped by staff interactions; thus, efforts to provide transitional care in nursing homes may need to incorporate strategies for promoting staff interactions which influence care. Third, the study provides a template for a comparison study of multiple nursing homes that can be used to develop testable hypotheses for intervention research, nursing home staff education or process improvement initiatives. Finally, the study identifies structures, processes, and interactions which may be targets for future intervention research designed to promote safe health care transitions for post-acute care patients in nursing homes.
4. Relationship-Oriented Management Practices in Nursing Homes

Preventable problems, such as infections, pressure ulcers, dehydration, and falls persist at unacceptable levels in nursing homes (Cuddigan, Ayello, & Sussman, 2001; Foxman, 2002; J. Mentes, 2006; Rubenstein, 2006) even though the clinical science is available for preventing these poor care outcomes (Cameron, et al., 2010; J. C. Mentes, and the Iowa Veterans Affairs Nursing Research Consortium, 2004; Stevenson & Loeb, 2004; Wound, 2003). Many, seemingly intractable health problems can be categorized as geriatric syndromes, defined as conditions that have multiple risk factors and involve more than one organ system (Inouye, Studenski, Tinetti, & Kuchel, 2007). For example, when an infection leads to delirium, neurological symptoms emerge from pathological changes in distinct and sometimes distant organ systems (Inouye et al., 2007); crossing organ system boundaries to resolve this type of health crisis requires involvement of staff members from many disciplines (Inouye et al., 2007). Thus, identifying and reducing multiple risk factors calls for effective staff interdependence, defined as the ability of co-workers to mutually and reciprocally adjust their activities in response to a situation and to each other’s actions (Wageman, 1995). Interdependence is high in care for geriatric syndromes, because care requires a wide variety of skills and completion of any aspect of the task depends on the quality of task completed by other members of the team. Staff relationships characterized by frequent information exchange, problem-solving, and feedback among interdependent staff, will increase the capacity for improvising and learning (Plowman, et al., 2007), fostering team processes needed to coordinate complex
geriatric care. Thus, in my review of the literature, I evaluated studies of relationship-oriented management practices and described the evidence base for management practices that foster interdependence and help staff members learn to improve care.

**Search Method**

To identify peer-reviewed, empirical studies of relationship-oriented management in nursing homes, I conducted a broad search in PubMed using a combination of MeSH terms (“nursing home*” OR “homes for the aged”) AND (“patient care management” OR “institutional management teams” OR “decision making, organizational” OR “nursing staff” OR “interprofessional relations” OR “problem solving” OR “interdisciplinary communication” OR “patient care team” OR “leadership” OR “attitude of health personnel” OR “communication” OR “cooperative behavior” OR “patient care management” OR “organizational culture” OR “nursing, supervisory” OR “patient care team” OR “nurse administrators” OR “workplace” OR “delivery of health care” OR “health facility administrators”). I limited the search to studies that were set in nursing homes and published in English between 2000 and 2010. I screened titles and abstracts of 4,356 studies and identified 86 related to management practices in nursing homes. After scanning full manuscripts, I eliminated 55 studies which did not specifically address relationship-oriented management practices. I retained 28 studies and, after a hand-search of references in selected studies, I identified 5 additional studies for review. I abstracted data from the 33 studies into a matrix to facilitate analyses of studies for themes. Papers that fit in more than one thematic group were categorized by primary theme in the matrix;
however, my discussion of findings incorporated papers and findings across thematic categories.

**Findings**

The 33 studies, drawn from 19 peer-reviewed journals, are organized in Table 7 by themes I identified in my analysis: (a) managing relationships between managers and staff, (b) manager cultivation of staff participation in decision-making, and (c) work designs that foster staff interactions. Twenty-nine studies used surveys, interviews and/or observations to describe associations between relationship-oriented management practices and patient or staff outcomes; further, four studies used quasi-experimental approaches to test relationship-oriented management interventions designed to improve patient and staff outcomes.

**Table 7 Studies of Relationship-Oriented Management Practices**

<table>
<thead>
<tr>
<th>Study</th>
<th>Approach</th>
<th>Main Finding</th>
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<tbody>
<tr>
<td><strong>Theme 1: Management of Relationships</strong></td>
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<tr>
<td>(Berta, et al., 2010)</td>
<td>Interviews and focus groups in 22 nursing homes</td>
<td>Management cultivation of staff relationships was related to better uptake of evidence-based practice guidelines</td>
</tr>
<tr>
<td>(Hughes &amp; Lapane, 2006)</td>
<td>Survey with 367 nurses and 636 nursing assistants in 26 nursing homes</td>
<td>Poor management communication with nursing staff was related to limited organizational efforts to assure patient safety</td>
</tr>
<tr>
<td>(Kjos, Botten, Gjevjon, &amp; Romoren, 2010)</td>
<td>Telephone interviews with 36 nursing home managers</td>
<td>Staff empowerment and coordination were limited by attention to regulation and compliance</td>
</tr>
<tr>
<td>(Scott-Cawiezell, et al., 2006)</td>
<td>Survey and interviews with staff members in 5 nursing homes</td>
<td>Punitive management practices reduced communication of errors in quality assurance programs</td>
</tr>
<tr>
<td>(Zheng &amp; Temkin-Greener, 2010)</td>
<td>Secondary analysis of survey data collected in 2</td>
<td>Management communication with nursing assistants was related to superior end of life</td>
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<thead>
<tr>
<th>Study</th>
<th>Approach</th>
<th>Main Finding</th>
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<tr>
<td>(Bishop, et al., 2008)</td>
<td>Surveys with 255 certified nursing assistants and 105 patients in 15 nursing homes</td>
<td>Management that was open, respectful and helpful was related to greater nursing assistant intent to stay; nursing assistant intent to stay was also related to patient satisfaction with care</td>
</tr>
<tr>
<td>(Bowers, Esmond, &amp; Jacobson, 2003)</td>
<td>In depth interviews with 41 nursing assistants in 3 nursing homes</td>
<td>Management styles that dismissed or under-valued nursing assistant contributions to patient care were related to nursing assistant turnover</td>
</tr>
<tr>
<td>(Forbes-Thompson, Gajewski, Scott-Cawiezell, &amp; Dunton, 2006)</td>
<td>Survey with 3,894 managers and staff members in 101 nursing homes</td>
<td>Managers perceived satisfactory communication and did not recognize nursing assistant perceptions that communication was poor</td>
</tr>
<tr>
<td>(Scott-Cawiezell, et al., 2004)</td>
<td>Survey with 995 staff members in nursing homes in 4 states</td>
<td>Communication between manager and nursing staff was a widespread problem</td>
</tr>
<tr>
<td>(Rodwell, Noblet, Demir, &amp; Steane, 2009)</td>
<td>Survey of 168 nurses in nursing homes in one organization</td>
<td>Management that cultivated relationships with nurses was related to increased nursing perceptions of control of work demands</td>
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**Theme 2: Manager Cultivation of Staff Participation in Decision Making**

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<thead>
<tr>
<th>Study</th>
<th>Approach</th>
<th>Main Finding</th>
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<tr>
<td>(Barry, Brannon, &amp; Mor, 2005)</td>
<td>Survey of 156 directors of nursing and 430 nurses in a random sample of nursing homes in 4 states</td>
<td>Nursing assistant empowerment was associated with better pressure ulcer care and nursing assistant well-being</td>
</tr>
<tr>
<td>(Caspar &amp; O'Rourke, 2008)</td>
<td>Survey with 242 nurses and 326 nursing assistants in 54 nursing homes</td>
<td>Increased staff decision making was related to adoption of individualized care practices</td>
</tr>
<tr>
<td>(Yeatts &amp; Cready, 2007)</td>
<td>Quasi-experimental study of nursing assistant teamwork in 5 intervention and 5 control nursing homes</td>
<td>Nursing assistant empowerment was related to improved nursing assistant performance and coordination with nurses</td>
</tr>
<tr>
<td>(Karsh, Booske, &amp; Sainfort, 2005)</td>
<td>Survey with 6584 staff members in 76 nursing homes</td>
<td>Teamwork and rewards for self-improvement were related to staff commitment and retention</td>
</tr>
<tr>
<td>(Schmidt &amp;</td>
<td>Survey with 379 staff</td>
<td>Low nurse participation in decision making</td>
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<tr>
<th>Study</th>
<th>Approach</th>
<th>Main Finding</th>
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<tr>
<td>Diestel, 2010</td>
<td>members in 11 nursing homes</td>
<td>was related to job strain and reduced well-being</td>
</tr>
<tr>
<td>(Kuo, Yin, &amp; Li, 2008)</td>
<td>Survey with 114 nursing assistants in 28 nursing homes</td>
<td>Opportunities to form alliances with peers/managers was related to nursing assistant satisfaction</td>
</tr>
<tr>
<td>(Leutz, Bishop, &amp; Dodson, 2010)</td>
<td>Participatory study of labor and management partnerships in 2 nursing homes</td>
<td>Greater nursing assistant participation was related to nursing assistant feelings of respect and diversity in planning</td>
</tr>
<tr>
<td>(Rondeau &amp; Wagar, 2006)</td>
<td>Mail survey of directors of nursing in 125 nursing homes</td>
<td>Employee rewards and participation in decision making was related to staff and patient satisfaction</td>
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**Theme 3: Work Designs that Foster Caregiver Interactions**

<table>
<thead>
<tr>
<th>Study</th>
<th>Approach</th>
<th>Main Finding</th>
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<tbody>
<tr>
<td>(Anderson, Ammarell et al., 2005)</td>
<td>Case study, analysis of data from 19 staff members in a single nursing home</td>
<td>Poor nurse- nursing assistant connections limited nursing assistant interpretations and management of problems in care</td>
</tr>
<tr>
<td>(Anderson et al., 2003)</td>
<td>Surveys with staff members and Minimum Data Set data from 164 nursing homes</td>
<td>Relationship-oriented leadership was related to better patient outcomes</td>
</tr>
<tr>
<td>(Burgio, et al., 2002)</td>
<td>Randomized clinical trial with 88 patients and 106 nursing assistants in 2 nursing homes</td>
<td>Training to increase staff collaboration was related to better nursing assistant and patient communication</td>
</tr>
<tr>
<td>(Colon-Emeric, Ammarell et al., 2006)</td>
<td>Case study, analysis of data from 119 nursing and 7 medical staff in 2 nursing homes</td>
<td>Open, compared to “top-down,” communication was related to greater information flow and creativity in problem solving</td>
</tr>
<tr>
<td>(Colon-Emeric, Lekan-Rutledge et al., 2006)</td>
<td>Case study, analysis of data from 390 staff members in 4 nursing homes</td>
<td>Strong staff interconnections were related to superior care planning and responsiveness to changing patient needs</td>
</tr>
<tr>
<td>(Gittell, Weinberg, Pfefferle, &amp; Bishop, 2008)</td>
<td>Surveys with 105 patients and 252 nursing assistants in 15 nursing homes</td>
<td>Stronger “relational coordination” was associated with superior staff satisfaction and patient quality of life</td>
</tr>
<tr>
<td>(Piven, et al., 2006)</td>
<td>Case study, analysis of data from 4 Minimum Data Set nurses and other</td>
<td>Strong Minimum Dataset Nurse connections with multi-disciplinary teams were related to better implementation of care plans</td>
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<tr>
<th>Study</th>
<th>Approach</th>
<th>Main Finding</th>
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<tr>
<td>(Swagerty, Lee, Smith, &amp; Taunton, 2005)</td>
<td>Case study with 17 patients, 16 family members, 66 staff and 9 managers in 3 nursing homes</td>
<td>Top-down management styles are common in nursing homes and are associated with inferior patient care</td>
</tr>
<tr>
<td>(Bokhour, 2006)</td>
<td>Case study with 16 staff members in one nursing home</td>
<td>Passive communication among nursing home staff and physicians during inter-disciplinary report was related to poor collaboration and less detailed care planning</td>
</tr>
<tr>
<td>(S. S. Lyons, 2010)</td>
<td>Case study with patients, families and staff members in 2 nursing homes</td>
<td>Shared positive valuation of inter-disciplinary collaboration was related to better incontinence management</td>
</tr>
<tr>
<td>(Rantz et al., 2010)</td>
<td>Case report with managers, staff and Minimum Data Set data from one nursing home</td>
<td>Information exchange, connections and cognitive diversity were related to better incontinence management</td>
</tr>
<tr>
<td>(Kontos, Miller, &amp; Mitchell, 2010)</td>
<td>Interviews and focus groups with 26 nursing assistants and 9 managers in 2 nursing homes</td>
<td>Nursing assistant exclusion from care planning was related to under-specified care plans and poor patient care</td>
</tr>
<tr>
<td>(Anderson, Corazzini, &amp; McDaniel, 2004)</td>
<td>Surveys with 3,449 staff members and facility-level staffing data in 164 nursing homes</td>
<td>Reward-focused management styles and open communication were related to lower nursing assistant and nurse turnover</td>
</tr>
<tr>
<td>(Kinjerski &amp; Skrypnek, 2008)</td>
<td>Quasi-experimental study of spirit at work, involving 58 staff in 2 nursing homes</td>
<td>Training to increase staff “spirit at work” was related to improved communication and relationships</td>
</tr>
<tr>
<td>(Scalzi, Evans, Barstow, &amp; Hostvedt, 2006)</td>
<td>Interviews with 67 staff members and 14 families in 3 nursing homes</td>
<td>Relationship-oriented management styles and staff empowerment were related to “culture change” in nursing homes</td>
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**Theme One: Managing Relationships between Managers and Staff**

The ten studies in this thematic group explored ways that nursing home managers
engaged collaboratively with staff members and the extent to which these relationships influenced the quality of patient care and staff member satisfaction with work. One group of studies suggested that relationship-oriented management practices, such as reciprocal staff and manager communication and opportunities for staff members to contribute to planning in nursing homes, were associated with more individualized end of life care (Zheng & Temkin-Greener, 2010), greater patient and certified nursing assistant satisfaction (Bishop et al., 2008; Gittell et al., 2008), and increased nursing perceptions that they were able to control work demands (Rodwell et al., 2009). However, a second group of studies suggested that it is difficult to develop open, trusting relationships between staff and managers in nursing homes (Kjos et al., 2010; Scott-Cawiezell et al., 2004). Studies specified measurable harms related to neglected or absent staff and manager relationships, including certified nursing assistant dissatisfaction and turnover (Bowers et al., 2003), reduced communication about medical errors (Scott-Cawiezell et al., 2006), and limited organizational capacity for adoption of evidence-based practices (Berta et al., 2010). A case in point was the tendency among nursing home managers to emphasize compliance with regulations at the expense of open communication and proactive relationship-building with staff members (Hughes & Lapane, 2006; Kjos et al., 2010; Scott-Cawiezell et al., 2006). In the absence of strong connections with their managers, nurses and certified nursing assistants felt ignored, punished or blamed in communication with managers regarding medical errors and patient safety (Hughes & Lapane, 2006; Scott-Cawiezell et al., 2006). In one study, for example, nursing home
managers perceived their communication to be effective, even though staff members, especially certified nursing assistants, felt dissatisfied and poorly connected with managers (Forbes-Thompson et al., 2006). Thus, studies described a significant gap between staff members who provided care and their more clinically removed managers; moreover, when managers bridged this gap with relationship-oriented management practices, nursing home staff provided more effective patient care and experienced greater satisfaction at work. Taken together, these consistent, exploratory findings suggest that stronger staff and manager connections and communication may foster staff interdependence in care and improve outcomes in nursing homes.

**Theme Two: Manager Cultivation of Staff Participation in Decision Making**

The eight studies in this thematic group explored how managers provided opportunities for staff to participate in a variety of decisions. Major concepts in this research on staff participation in decision-making were staff member opportunities to control their work environments as well as access and contributions to administrative information (Kanter, 1977). Consistently, relationship-oriented management practices fostered staff participation in decision-making and were associated with superior outcomes, including improved patient behavior (among patients with history or agitation) (Anderson et al., 2003), pressure ulcer care, (Barry et al., 2005) individualized patient care (Caspar & O'Rourke, 2008), nursing job strain (Schmidt & Diestel, 2010), employee and patient satisfaction (Kuo et al., 2008; Rondeau & Wagar, 2006), and staff retention (Karsh et al., 2005). Limited evidence from quasi-experimental intervention studies
supported these descriptive findings. Yeatts and Cready, (2007) for example, intervened in five pairs of nursing homes and described modest, positive associations between “empowered” nursing assistant decision-making groups and improvements in nursing assistant performance, collaboration, and attention to patient preferences. In a related study in two nursing homes, Leutz, Bishop and Dodson (2010) found that an intervention, designed to foster organized labor and management collaboration in patient-centered care, was related to more clinically focused labor negotiations, greater person-centered care and improved nursing staff satisfaction. Although studies are few, staff participation in decision making appears to improve the quality of nursing home environments for staff and quality of outcomes for patients.

**Theme Three: Work Designs that Foster Staff Interactions**

The 15 studies in this thematic group explored how management practices that shaped the effectiveness of interactions among staff members influenced nursing home outcomes; for example, how the frequency or intensity of staff connections, information flow, and shared efforts to make sense of emergent issues in care influenced patient outcomes (Anderson et al., 2004; Forbes-Thompson et al., 2006; Gittell et al., 2008). A subset of eleven studies described how relationship-oriented management practices that promoted staff interdependence were associated with evidence of superior nursing home performance, including: (a) more effective care processes, such as more iterative and reciprocal staff conversations about patient care (Jordan, et al., 2009), greater creativity in problem solving and care planning (Colon-Emeric, Ammarell et al., 2006), increased...
responsiveness to changing patient needs (Colon-Emeric, Ammarell et al., 2006), superior nursing leadership in care plan implementation (Piven et al., 2006), and increased evidence of “culture change” in staff attitudes and perceptions (Scalzi et al., 2006); (b) superior patient outcomes, including quality of life (Gittell et al., 2008), incontinence management (S. S. Lyons, 2010; Rantz et al., 2010), and fractures related to falls (Anderson et al., 2003); and (c) greater staff member engagement with their work, including higher staff satisfaction (Gittell et al., 2008) and lower rates of certified nursing assistant and nursing turnover (Anderson et al., 2004). In contrast, bureaucratic management practices, characterized by hierarchical decision-making and limited communication among administrative, professional and unlicensed staff members (Scott-Cawiezell et al., 2004), were prevalent in nursing homes and more likely to be associated with reduced staff interdependence in care (Anderson et al., 2004; Bowers et al., 2003; Rantz et al., 2004; Swagerty et al., 2005). In nursing homes with bureaucratic, “top-down” management practices, weak connections and limited sensemaking among staff reduced staff interdependence, as was evident in study findings of certified nursing assistants exclusion from care planning (Kontos et al., 2010), passive communication during inter-disciplinary report (Bokhour, 2006), and poor connections between nurses and certified nursing assistants (Anderson, Ammarell et al., 2005). Thus, despite limited intervention research to support descriptive and explanatory studies of staff interactions and conversations to date (Burgio et al., 2002; Kinjerski & Skrypnek, 2008), relationship-oriented management practices which promote interactions among nursing home patients,
staff and managers appear to support staff interdependence and to be a foundation on which to improve the quality of care.

Discussion

The research reviewed has shortcomings that weaken my ability to make strong statements to guide practice: studies were mainly descriptive, few linked relationship-oriented management practices to existing knowledge for addressing geriatric syndromes, and few tested interventions. Despite limitations, all reviewed studies (n = 33) suggested that relationship-oriented management fosters staff interdependence, supported by stronger social networks and more open communication channels among nursing home staff and managers. Studies also suggested that better staff interdependence was associated with improvements in care processes, patient outcomes and staff satisfaction. Thus, a practice implication is that nursing home care may be improved with explicit assessments and inclusive conversations in nursing homes which seek to strengthen manager and staff relationships, particularly efforts to increase information exchange and shared sensemaking about developments in patient care. Useful studies to stimulate these conversations might include Bowers et al.’s discussion of the reasons for certified nursing assistant turnover (Bowers et al., 2003), Gittell et al.’s description of relational coordination in nursing homes (Gittell et al., 2008), and Colon-Emeric et al.’s application of complexity theory in their description of connections, regulations and care planning (Colon-Emeric, Lekan-Rutledge et al., 2006). Using these papers and others in my review, nursing home staff and managers might quickly gain an overview of concepts
and practical problems to stimulate conversations, assessments, and improvements in staff interactions and subsequently in patient care.

Establishing effective interdependence is in large part the work of managers in nursing homes, suggesting a need to include relationship-oriented management in nursing administration education programs (Dellefield, 2008; Siegel, Young, Mitchell, & Shannon, 2008). Further, relationship-oriented management practices are not the exclusive purview of managers. They can be fostered as a grassroots effort, begun by clinical staff without direction from managers, as found by Anderson and colleagues (1998). This suggests that staff nurse education should include learning about how to foster effective interdependence as well.

The literature review results suggest that a strong foundation of knowledge about management practice currently exists on which to further develop the evidence base for nursing management practice in nursing homes. Studies in the review describe management practices which fostered staff and manager interdependence through their effects on relationships, participation in decision-making and interactions involved in coordinating care. The ability to suggest specific research implications, based on study findings, is limited by the exploratory nature of most study designs, the wide range of measures used, and the diversity of outcome measures studied. Thus, an immediate research implication is the need for colloquia designed to set research priorities, including (a) identification of outcomes of common interest (e.g., pressure ulcers or falls), (b) agreement on working definitions of staff interdependence and other concepts related to
relationship-oriented management practices in nursing homes, and (c) development of common measurement approaches to allow comparison of findings.

The evidence in this literature review also identified aspects of relationship-oriented management practices that provide a foundation for new nursing management interventions. A research implication is that pairing explanatory findings from selected studies in my review (e.g., Berta’s description of best practice adoption (Berta et al., 2010), Anderson’s application of complexity theory to nursing home staff interactions (Anderson, Ammarell et al., 2005; Anderson & McDaniel, 2008), Yeatts and Cready’s model of staff empowerment (Yeatts & Cready, 2007), Leutz, Bishop and Dodson’s model of labor and management partnerships (Leutz et al., 2010), and Gittell et al.’s conception of relational coordination (Gittell et al., 2008)) with evidenced based clinical interventions for reducing geriatric syndromes, will lead to fruitful outcomes. The field appears ripe for rapid advancement of knowledge from research that uses quasi- or controlled experimental designs.
5. Care-Team Interactions and Transitional Care in Nursing Homes

Nearly two million older adults complete three to four week courses of post-acute care in nursing homes each year (Ng et al., 2010). Like older adults who transition from hospitals to home, post-acute care patients transition from nursing homes to home without needed preparations to safely continue care at home. (Coleman, Min et al., 2004; Kind et al., 2007; Murtaugh & Litke, 2002); further, without guidance or preparations, their transitions are often complicated by missteps in care, relapse, and extended needs for acute medical care (K. S. Boockvar et al., 2004; Coleman, 2003; Forster et al., 2003; Kripalani, LeFevre et al., 2007; Weaver et al., 1998). A time-limited set of services, known as “transitional care,” has proven to be an effective strategy, not only for reducing complications from care transitions, but for ensuring continuity of care and engaging older adults in plans for providing self-care at home (Chiu & Newcomer, 2007; Naylor et al., 2009; Parry et al., 2006).

The centerpiece of effective transitional care interventions has been to use care coordinators - coaches and transitional care nurses - who discover, engage and support older adults as they move between settings of care (Bull et al., 2000; Caplan et al., 2004; Coleman et al., 2006; Dedhia et al., 2009; Jack et al., 2009; Krichbaum, 2007; Naylor et al., 1999; Naylor et al., 2004; Parry et al., 2009). In the noted “Reengineered Hospital Discharge Program” (Jack et al., 2009), for example, care coordinators established relationships with patients and family caregivers over the course of repeated encounters in the hospital. Interacting with patients and family members, care coordinators were
able to make longitudinal needs assessments and adapt evidence-based transitional care processes to the specific needs of individual hospital patients (Greenwald & Jack, 2009); furthermore, recipients of the intervention had safer transitions home, e.g., reduced need for emergency or hospital services after discharge (Jack et al., 2009). Reports from multiple transitional care studies reported similar findings: when coordinators and patients established stronger connections, care coordinators discovered patient preferences, adapted care process to responses to treatment, and fostered transitions to home with the outcome of fewer complications and reduced recidivism (Chiu & Newcomer, 2007; Kripalani, Jackson et al., 2007; Toles et al., under review).

Patient care activities in nursing homes, which prepare older adults for transitions to home, rarely if ever include care coordinators; rather, transitional care is provided by interacting groups (care-teams) of nursing home staff, individual patients, and family members (Toles et al., under review). At present, nursing home staff member interactions with post-acute care patients that promote effective transitional care have not been studied. Studies have shown that nursing home staff interactions, and related teamwork, are associated with many other desired outcomes in nursing homes, including increased patient safety (Scott-Cawiezell et al., 2006) better pain control (Swafford, Miller, Tsai, Herr, & Ersek, 2009), reduced falls (Cameron et al., 2010), and improved organizational processes for managing care (Anderson et al., 2003; Berta et al., 2010; Colon-Emeric, Lekan-Rutledge et al., 2006; Gittell et al., 2008; S. S. Lyons, 2010; Rantz et al., 2010). Nonetheless, the influence of staff member interactions with post-acute care
patients on care outcomes are poorly understood and high-quality interactions are a challenging task in nursing home care (Anderson, Ammarell et al., 2005; Bokhour, 2006; Colon-Emeric, Ammarell et al., 2006; Hughes & Lapane, 2006; Kjos et al., 2010)

Anderson’s Model of Local Interaction (Anderson & McDaniel, 2008) provides a useful theoretical orientation for exploring staff member interactions with patients, in particular, the influence of care-team interactions on the effectiveness of transitional care. The Model of Local Interaction is based on complexity science and explains how organized processes in nursing homes emerge from the interactions among patients and staff members (Anderson & McDaniel, 2008). In the model, nursing homes are viewed as adaptive systems with three system parameters (Stacey, 1996), each of which describes a potential capacity in nursing homes for self-organization, defined as the ability of staff to continually gather new information and respond to meet the immediate demands of the environment (McDaniel & Driebe, 2001). Self-organization may occur in ways that are in line with the organizational goals (such as effective transitional care) or in ways that are not in line with organizations goals (absence of transitional care). The system parameters can be understood as follows: (a) information flow (the rate at which new information is introduced to the system), (b) staff interconnections (the quality of relationships such as open, trusting, helpful, appreciative), and (c) cognitive diversity (the degree of attentiveness to care needs and willingness to develop new ideas using a variety of perspectives) (Anderson & McDaniel, 2008). The Model of Local Interactions describes staff behaviors, known as “local interaction strategies,” that can exert strong
influence on these three system parameters (Anderson & McDaniel, 2008) which in turn influence the ability of staff to self-organize using the best information and creative problem solving approaches. Local interaction strategies are staff behaviors that impeded or optimize the system parameters. In a series of in-depth case studies of nursing, Anderson and colleagues (cite the 2008 or other paper here) identified a set of local interaction strategies judged to be most effective in optimizing the system parameters (see Table 8).

**Table 8 System Parameters and Local Interaction Strategies**

<table>
<thead>
<tr>
<th>Connection Strategies</th>
<th>Information Exchange Strategies</th>
<th>Cognitive Diversity Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be approachable - be open, listen, &amp; respond to what people say</td>
<td>Listen - hear with thoughtful attention</td>
<td>Pay attention – make a conscious effort to stop, watch and act</td>
</tr>
<tr>
<td>Pitch in - go beyond regular duties to help others</td>
<td>Give and share information</td>
<td>Ask questions - ask for an explanation when you feel uneasy about or when you feel you are not heard</td>
</tr>
<tr>
<td>Seek assistance - request help</td>
<td>Receive information - graciously accept information</td>
<td>Give feedback - provide others with useful opinions or reactions to their work</td>
</tr>
<tr>
<td>Reciprocate - give &amp; take with others in a way that generates goodwill</td>
<td>Explain - give details to explain what you mean</td>
<td>Receive feedback - graciously accept others opinions or reactions to your work</td>
</tr>
<tr>
<td>Show appreciation - express a positive opinion of other peoples’ actions</td>
<td>Verify meaning - make sure you understand information shared by others</td>
<td>Suggest alternative - give different options for others to consider before taking action</td>
</tr>
<tr>
<td>Give respect - let others know you value them and their opinions</td>
<td>Say back to the person: “Did I understand you to say…..” or, “This is what I heard you say….., am I right?”</td>
<td>Sensemaking - talk with other people to ask, “What does this mean?” Together, make sense of confusing situations</td>
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</table>
For example, where these local interactions strategies are more prevalent or intensive, the stage is set for the care-teams to self-organize to provide effective care in the nursing home. As staff members more frequently “listen” and “verify meaning,” they promote information exchange. As staff members more frequently “pitch in” or “seek assistance,” they foster connections and relationships. And, as staff members more frequently “ask questions” or interact to make sense of what they have observed, they cultivate greater diversity in problem solving.

Prior research has not studied patient care-teams as “systems” that may respond to the intensity or quality of local interaction strategies among staff members. It is also unknown how staff interactions foster or limit improvisation, learning and adaptation as care-team members coordinate transitional care with older adults and their caregivers. Thus, using Anderson’s Model of Local Interaction as a theoretical guide, I analyzed data from a longitudinal, multiple case study of transitional care in a nursing home and sought
to explain how nursing home staff member interactions with post-acute care patients influenced the effectiveness of transitional care.

**Design and Methods**

Data for this study were collected over five months in 2010 as part of a longitudinal, multiple case study of transitional care for post-acute care patients (Anderson, Crabtree et al., 2005; Barley & Kunda, 2001; Yin, 1994). The study setting was a purposefully selected skilled nursing facility with a positive community reputation for providing post-acute care and greater than average quality indicators in Nursing Home Compare. Informed consent was obtained from all study participants and study protocols were reviewed and approved by the university institutional review board. In this paper, data from two case studies are analyzed; specifically, the analysis describes how care-team member interactions influenced the effectiveness of transitional care for older, post-acute care patients.

**Sample and procedures**

Qualitative data were collected in three case studies; a case was defined as patient care-team, comprised of individual nursing home patients, family caregivers, and six to eight professional caregivers. Cases were followed from the patient’s day of admission through the day of discharge. The inclusion criteria for post-acute care patients were an anticipated length of stay of 15 to 45 days and a post-acute care admission diagnosis that differed from patients previously recruited; exclusion criteria were moderate to severe cognitive impairment (Rantz et al., 2006) and inability to speak English. Inclusion
criteria for nursing home staff were willingness to participate and holding a role in transitional care activities. Family caregivers were included based on their willingness to participate and their availability. Study participants in the three case studies were two patients, 16 nursing home staff and one family caregiver. Data used in the analysis were from 89 interviews, 118 field observations, and 70 chart or document reviews.

**Data collection**

Case study data were collected by the principal investigator and focused on three concepts, including local interaction strategies, identified in Anderson’s Model of Local Interaction (see Table 8); transitional care processes (see Table 9), identified in my review of hospital-based intervention studies of transitional care (National Transitions of Care Coalition, 2008; Naylor et al., 2009; Toles et al., under review); and transitional care outcomes, defined as patient, staff and researcher assessments of the completion of transitional care processes.

**Table 9 Transitional Care Processes and Conceptual Definitions**

<table>
<thead>
<tr>
<th>Care Process</th>
<th>Conceptual Definition</th>
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<tbody>
<tr>
<td>(a) Assess and plan care</td>
<td>Comprehensively assess needs, plan care and implement plans to address transitional care needs (Allen et al., 2009; Caplan et al., 2004; Naylor et al., 2004)</td>
</tr>
<tr>
<td>(b) Heed patient and caregiver</td>
<td>Maintain a holistic focus on patient and caregiver preferences and incorporate preferences into planning (Coleman, Smith et al., 2004; Naylor et al., 1999; Shyu et al., 2008)</td>
</tr>
<tr>
<td>preferences</td>
<td></td>
</tr>
<tr>
<td>(c) Encourage and engage patients</td>
<td>Assist patients with cognitive reframing and emotional support needed to assist them with acceptance of changes in functional status and new resources to address needs (Krichbaum, 2007; Naylor et al., 1999; Parry et al., 2009)</td>
</tr>
<tr>
<td>(d) Teach self-management</td>
<td>Encourage patients and caregivers to adhere to medical treatment plans and to use appropriate techniques for self-care (Allen et al., 2009; Huang &amp; Liang, 2005; Sinclair et al., 2005)</td>
</tr>
<tr>
<td>(e) Teach warning</td>
<td>Explain clinical warning signs and describe appropriate responses to changes in</td>
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</table>
The procedures for data collection used direct observation and interviews with care-team members while they completed transitional care process task work (Barley & Kunda, 2001). The researcher “shadowed” care-team members in meetings, rounds, and patient care activities to observe and conduct unstructured, clarifying interviews as care-team members interacted and carried out transitional care task work; throughout field observations, chance encounters between care-team members were also observed, which facilitated description of informal, unplanned interactions in care (Anderson, Crabtree et al., 2005; Barley, 1990; Barley & Kunda, 2001). Observations (n = 118) and unstructured interviews to clarify points noted in the field observations were recorded with pen and paper and were transcribed into Word files daily for analysis. In addition,
digitally-recorded, semi-structured in-depth interviews were conducted to explore staff and patient perceptions of interaction patterns, transitional care processes and related outcomes. Interviews (n = 89) were transcribed verbatim for analysis. Data recorded by rehabilitation therapists, clinicians, nurses and social workers and in the patient chart and other documents such as care planning and discharge materials were also reviewed, recorded in field notes and transcribed daily for analysis. I strictly followed procedures for ensuring rigor in the field work and analysis (see Table 10).

**Table 10 Procedures for Assuring Rigor**

<table>
<thead>
<tr>
<th>Criteria and Related Strategies</th>
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<tbody>
<tr>
<td><strong>Credibility</strong> (Teddlie &amp; Tashakkori, 2009)</td>
<td>(1) Meetings with co-authors to review data collection and analysis procedures; (2) Member checks using interim case reports; (3) Iterative process for data collection and analysis.</td>
</tr>
<tr>
<td><strong>Dependability</strong> (Teddlie &amp; Tashakkori, 2009)</td>
<td>(1) Protocols for observations, interviews, surveys and chart reviews, including an audit trail; (2) Standardized interview and observation templates; (3) Transcription inspection; (4) Standardized codebook and definitions; (5) Redundant coding by a second coder of a random sample of 10% of data</td>
</tr>
<tr>
<td><strong>Confirmability</strong> (Teddlie &amp; Tashakkori, 2009)</td>
<td>(1) Member checks with interim case reports to explore findings; (2) Triangulation between multiple sources of data; (3) Comparison of findings within and between nursing homes and with published studies.</td>
</tr>
<tr>
<td><strong>Transferability</strong> (Teddlie &amp; Tashakkori, 2009)</td>
<td>(1) Purposive selection of nursing homes and care-team members; (2) Rich detail in data collected; (3) Between-case analysis to compare of study findings with reports in published literature; (4) Multiple case studies to support hypothesis-generation.</td>
</tr>
</tbody>
</table>

**Analysis**

With *a priori* codes for local interaction strategies (see Table 8), transitional care processes (see Table 8) and assessments of completed transitional care processes, the researcher coded all data using manifest content analysis (Hsieh & Shannon, 2005). A second investigator coded a random sample of 10% of the data to ensure the accuracy and
consistency of coding. There was 95% agreement between the coders. Using within case analysis (Miles & Huberman, 1994), I constructed a timeline of the patient’s stay in the nursing home onto which I plotted units of coded transitional care process, staff interaction and outcomes data chronologically (Maltz & Mullany, 2000). Using the timeline to organize the data, I described thematic relationships between staff member use of local interaction strategies and effectiveness of transitional care processes. Then, I wrote narratives that described how care-team member local interaction strategies were associated with completion of transitional care processes (Silverman & Marvasti, 2008). I added contextual detail using data collected in observations and interviews to provide explanatory detail about the relationship between staff interactions and care processes; contextual data were also added to describe the effectiveness of transitional care outcomes. Using between-case analysis (Miles & Huberman, 1994), findings from each case study were compared to identify patterns in the influence of staff member use of local interaction strategies and effective completion of transitional care processes. As a final step, I wrote descriptions of the facility-level associations between local interaction strategies and transitional care processes.

**Results**

Data from my case studies of transitional care suggest that local interaction strategies increased care-team capacity for effective self-organization of transitional care. More intensive or frequent staff member use of local interaction strategies in their encounters with patients fostered effective transitional care through their influence on
three system parameters: team connections, information exchange, and cognitive diversity. In my findings below, these system parameters are used to organize my description of local interaction strategies and the associations I identified between local interaction strategies and effective transitional care processes.

**Team Connections**

Across cases, I observed that staff member use of local interactions strategies increased the capacity for making connections and forming relationships with older post-acute care patients who were new to the nursing facility. Moreover, as inter-connections between staff members and patients developed, I observed that staff members more effectively prepared patients for their transitions to home. In the following, I describe four commonly observed local interactions strategies which increased staff member and patient connections, thereby improving effectiveness of transitional care processes.

**Show appreciation**

Older adult patients were admitted directly from hospitals, after surgery and acute illness, to the SNF; in all cases, these older adults were weak, tired and burdened with symptoms from acute health conditions. When team members showed appreciation for patients’ suffering stronger connections were established among the care-team and they were better able to provide information to the patients about how to manage their suffering. For example, when a very frail patient told her rehabilitation therapist, ‘I just do not feel well today,’ the therapist stated:
I can see that. I want to let you rest and we need to see if we can get you moving a little today, even if it is for just a little bit. We need to help you get some strength...will you try to participate a little bit with us?

In her interaction with the patient, the therapist formed a connection with the patient: the therapist showed appreciation (three times) by acknowledging that the patient did not feel well and that only a little participation might be possible, and provided information to the patient to guide him to start moving to build strength. When the patient eased out of bed and walked with the therapist, transitional care process work had already begun. The therapist was able to assess and engage the patient in planning. With repetition, this momentary connection emerged as a relationship which became a resource for other effective transitional care processes.

**Give respect**

Patients came to the SNF with old habits and expectations that they would continue to manage their affairs as they always had. The need for rehabilitation and transitional care was sometimes perceived as an affront to patients. Local interaction strategies which conveyed respect for patients’ pride and experience built interconnections which promoted effective transitional care. Speaking of a headstrong patient who expressed feelings of anger, a therapist told us:

I want the patient to see for himself that he has limitations...we can see that he is gravely at risk ...but I can see we are dealing with dignity and pride - and we need to respect that.
In subsequent observations, I noted how the therapists’ interactions with the patient enlisted his participation in safety teaching by consistently conveying respect for his need to try things independently. The therapist stated:

He tells me he can get up without help. I help him get to a safe place where he can try to show me…When he is not able to do all that he says, I point out the areas we need to work on. I have to do that over and over.

Thus, in her interactions with the patient, the therapist built a connection by giving respect: she heeded his opinion that he can do things himself, stayed close so that she can help or teach when it is needed, and repeated these respectful interactions in visits with him routinely. Furthermore, as she developed a connection with him, the therapist was able to teach the patient skills needed for staying safe at home.

**Mentoring and coaching**

I observed that transitional care plans frequently required participation from multiple staff members and family caregivers. I saw that patients often could not control plans that were made around them; thus local interactions such as mentoring reassured patients that they controlled parts of transition planning and helped to build needed connections. In a family meeting, for example, I observed interactions which illustrated a common pattern in the way staff guidance fostered connections with patients.
The patient stated that she was unsure if she wanted homecare to visit her house. A family caregiver looked at her and said, ‘You want to go home, or not?’ [The caregiver’s tone sounded insensitive]. The physical therapist, in a side conversation, explained to the patient that homecare was likely temporary and that she could control when and how long they visited.

The therapist’s remarks offered well-timed guidance for the patient and fostered a connection with her. The therapist showed appreciation for the patient’s feelings, pitched-in to reframe the family caregiver’s remark, and provided information to support the patient’s feeling of control in her own home and to work effectively with home care nurses.

**Information Exchange**

In my fieldwork, I observed a set of local interactions strategies which promoted information exchange among care-team members. These interaction strategies increased the accuracy and timeliness of patient assessments and individualized patient teaching for post-acute care patients; further, they helped staff members to verify that patients accepted, understood, and were capable of applying new information in their self-care practices. In the following, I describe four local interactions strategies which promoted the capacity for information exchange and how increased information exchange influenced the effectiveness of transitional care processes.
Listen

I repeatedly observed that effective transitional care processes emerged when staff members listened to information shared by older adults. As staff members listened, the capacity for information exchange in the care-team increased. For example, a social worker explained how she listened to a frail and overwhelmed patient and helped plan her discharge needs:

I was there to listen…through the grapevine, I heard the patient was not taking her medication…so, when I went to see her…we talked about her ultimate goal to get back home… I was listening. She had been adamant about not taking the medication but I encouraged her to think about the pros and cons - and she did.

The social worker’s interaction increased information flow; she (a) visited the patient when she learned from peers that a problem emerged, (b) listened to the patient’s thoughts about care, and (c) positioned herself to offer an evaluation of the patient’s perspective. This social worker’s interaction had immediate, positive effects on transitional care planning. The patient agreed to accept the new therapy.

As older adults recovered from acute changes in health, I observed that their worries about healing or the rate of healing reduced their attention to transitional care teaching and planning for care at home. I observed that local interaction strategies, which promoted information exchange, helped patients to articulate fears and helped staff members to identify topics for patient teaching. A nurse explained to us how her interactions with a surgical patient shaped care:
Every day the patient has several kinds of questions about the wound…she would keep looking at it. So I told her, ‘you can look at it if you want to and can tell if something is wrong by every day looking at it, [to see] if there is any redness [or] if it’s tender when you touched that area.’

The nurse increased information exchange by listening to the patient. Moreover, because the nurse consistently listened, she discovered the patient’s worry; she increased transitional care effectiveness as she used the new knowledge to individualize wound care teaching, addressing needed self-management skills.

**Give information and verify meaning**

Many transitional care processes are designed to teach older adults new skills for self-management and new resources for coordinating care at home (Naylor et al., 2009; Toles et al., under review). I observed that local interaction strategies increased the effectiveness of efforts to develop and share new information, such as evolving priorities in care, assessments of readiness for discharge, and descriptions of self-management skills or transition arrangements at home. For example, effective transitional care emerged when care-members used plain-spoken statements to highlight care priorities; a physician told a patient:

- It is very important that we follow the surgeon’s orders until the wound is healed.
- It is very important to follow the surgeon’s orders completely….do you understand your follow-up with the surgeon?
The physician’s interactions with the patient increased information flow by relaying medical information from the clinical team to the patient. He (a) emphatically stated a priority in care, (b) he repeated the priority to ensure clarity, and (c) he solicited the patient’s verification that she understood how to manage the care priority at home. His interaction approach increased transitional care effectiveness by helping the patient prioritize follow-up with the surgeon.

*Explain and verify meaning*

Care processes which help older adults learn appropriate responses to changes in medical condition are critical elements in transitional care planning (Coleman et al., 2006; W. L. Lyons & Coleman, 2009). I consistently observed that local interaction strategies promoted information flow that was needed to provide specialized teaching. I observed a nurse practitioner as she explained a new medication:

The nurse practitioner explained that the medication was needed to make sure the infection did not come back…that it would be needed long term…that there would be a weekly blood draw to ensure that the medication did not cause dangerous side effects… She made sure the patient knew to watch for fever and to report fever to her physician.

Local interaction strategies in the nurse practitioner’s encounter increased information flow among team members; specifically, she shared new information about the necessity, rationale, risks and precautions related to the new medication; further, she verified that the patient understood how to respond to potential adverse side effects from the medicine.
Effective information exchange contributed to the patient’s preparedness for care at home. I observed, moreover, that similar patterns in local interaction strategies promoted effective transitional care processes related to medication reconciliation as well.

**Cognitive Diversity**

I observed a third set of local interactions strategies which staff members used to increase the cognitive diversity in patient care; the diversity of care-team members who contributed to problem-solving in transitional care activities helped to create better understandings of the patient situations; thus, when cognitive diversity was greater, I observed that transitional care processes were more effective. In findings below, I describe four commonly observed local interactions strategies that promoted cognitive diversity and their associations with more effective transitional care processes.

**Pay attention**

As patients progressed, changes in their levels of health and function were unpredictable. Care-team members, who consciously paid attention to patient changes, were able to develop new knowledge and contribute to team-level decision-making processes. For example, in observations of an occupational therapist’s routine visit with a patient, I noted this exchange:

Therapist    Time for therapy…wait, you’re not using oxygen! What’s going on?

Patient [just looks at therapist]
Therapist I need to check your oxygen saturation. [She got an oximeter and checked] They’re perfect! Do you use oxygen at home?

Patient No, just while I was in the hospital.

Therapist So you’re not dependent on oxygen?

Patient Just when I was in the hospital.

That morning, two care-team members had failed to notice the patient was not wearing her oxygen cannula. When the therapist paid attention to the patient’s status, checked the vital sign, and paid attention to the patient’s statements about her medical history, she developed new knowledge regarding the patient’s improving strength and functional level. With the new knowledge, more effective transitional care emerged as the care-team was able to develop plans that were less restrictive, given that oxygen was not needed.

Accept feedback.

Giving and receiving feedback involves an evaluation or critique of someone’s approach, usually with suggestions for improvement (Anderson & McDaniel, 2008). Thus, staff interactions promote cognitive diversity when they suggest improvements for improving approaches of other care-team members. In my observations, I saw that giving and receiving feedback were extremely important local interaction strategies for increasing cognitive diversity. A care-team member described how accepting feedback advanced her work with a patient who denied new limitations in function. She told us:

His nature - of wanting to transfer the way he did it before - really prevailed on
us. We allowed him some leeway… he could see where he was struggling and it opened the door for my suggestions, and further things.

In her interaction with the patient, the care-team member increased cognitive diversity as she (a) paid attention to his preferred way of acting, (b) accepted his feedback that he was able to act more independently in rehabilitation, and (c) used his feedback as a resource for individualizing therapy needs to increase his participation. This care-team member told us that her acceptance of feedback from the patient “opened the door” for team suggestions; further, her interactions with the patient facilitated effective transitional care processes, such as limit setting and transitional care planning.

**Give Feedback**

When patients had unrealistic expectations or appeared to misunderstand information regarding safety awareness, giving feedback was a useful approach for professional staff to provide evaluations of patient perceptions and to reinforce needed precautions. I observed a care-team member make the following remark with a rather headstrong patient:

> With your weak left arm and hand, you will have to support your pivot for your very weak and recovering right knee - right now, you are not able to make this pivot alone - not even with one person helping.

In her interaction, this care-team member directly gave feedback which increased the patient’s awareness of his progress and the significant time it would take for him to recover his independent functioning. This use of cognitive diversity resonated
throughout transitional care planning with this patient; the patient was confronted with a professional assessment of his progress and the team was positioned to help him adjust to what he perceived as major losses.

**Sensemaking**

The uncertainty and time-constraints of patient care in nursing homes often requires highly interdependent work among staff members to develop new understandings about what information means and use group processes to make decisions that shape care (Anderson et al., 2003; Gittell et al., 2008). I observed local interactions, involving multiple staff members as they made sense of new or uncertain situations (sensemaking), which fostered cognitive diversity to manage complex problems in transitional care processes. In one instance, a nurse practitioner’s comments about a patient’s progress revealed a range of sensemaking activities:

> This is a very hard case…the patient wants to go home and that may be what happens on Tuesday. It makes me feel better that I saw her walk a little bit today…but this is really about her choosing not to participate…this may be part of her larger pattern…I will need to see her today. They [the staff] will need to have a plan to know what to do with her on Monday.

The nurse identified the uncertainty of the patient’s potential discharge; she integrated new evidence of the patient’s status with her prior observations of the patient’s poor participation in antibiotic therapy; and, most importantly, the nurse practitioner anticipated the need to make sense of the new information as a team. The nurse
practitioner’s activities significantly increased the effectiveness of transitional care - she prepared the team for reaching a meaningful idea about the patient’s preparedness for discharge.

Sensemaking was a critical local interactions strategy in all case studies; thus, I present a second example to illustrate the effects of sensemaking on transitional care processes. In a chance encounter during fieldwork, the researcher observed interactions among two rehabilitation therapists:

Two therapists met in the hallway and planned for their visit with the patient. They discussed the best way to get the patient involved in therapy and to avoid a confrontation about discharge. The first therapist said they really needed to avoid talking about discharge; the second therapist concurred and said that little gets done ‘when he goes there.’ They decided to avoid talking about discharge but… to work in language ‘about getting ready to go home.’

As the therapists interacted, they increased cognitive diversity in care through sensemaking which promoted effective transitional care by creating (a) an assessment based on multiple points of view, (b) identification of a team-level solution to the patient care need, (c) agreement on language that would reframe the issue for the patient and (d) a plan for incorporating the patient’s preferences in the emerging plan of action.

Cognitive diversity, in this case, enhanced transitional care processes by creating a new meaning of the activity for the patient that met professional staff and patient transitional care needs.
Discussion

Transitional care in nursing homes emerges from the interactions among professional staff and individual patients (Toles et al., under review). Using the Model of Local Interaction (Anderson & McDaniel, 2008) as a theoretical guide, I analyzed data from a longitudinal, multiple case study of transitional care in a nursing home and sought to explain how staff interactions with post-acute care patients influenced the effectiveness of transitional care. My observations suggest that professional staff efforts to provide transitional care processes were embedded in their interactions with nursing home patients and each other; moreover, in accordance with the Local Interactions Model, I observed that local interaction strategies were strong influences on the effectiveness of transitional care processes. When professional staff more consistently used specified local interaction strategies during patient encounters, I observed that they increased the capacity of care-teams for connections (e.g., relationships), information exchange, and cognitive diversity. Further, when staff and patient interactions were of high quality and sufficient frequency, I observed multiple indicators of more effective transitional care, such as greater patient engagement, the creation of new information to guide care, and continuous feedback among diverse staff for completing care.

Using the Local Interaction Model as a guide, I was consistently able to identify behaviors that professional staff used in their encounters with older adults to build relationships, increase the capacity for exchanging information, and foster team resources for addressing new challenges in care. For example, rather than merely explaining that
professional staff had “good relationships” with older adults, I was able to describe the specific behaviors that staff members used to create relationships, such as pitching in to help, giving respect, or mentoring and coaching. Using the model, I was able to describe specific behaviors that staff members used to foster communication with patients, such as listening, explaining new ideas, or verifying meaning in patient comments. And finally, I was able to describe interaction strategies that staff members used to foster resources for addressing new challenges in care, such as paying attention, receiving feedback, and asking, ‘what does this mean?’ Thus, I learned how relationships, communication, and cognitive diversity emerged from specific behaviors of professional staff.

I also found that the local interactions fostering connection were the starting point for effective transitional care. By establishing good connections with patients first, professional staff were then able to move on to more difficult aspects of transitional care; without establishing good connections, the patients were less likely to be ready to hear new information and to engage in problem solving about the transition. For example, my findings showed that local interactions that promoted staff and patient connections increased the capacity of professional staff to engage, assess, and plan care with patients. When professional staff listened to patients, gave respect or sought assistance from them, I observed that staff members were able to adapt transitional care processes to the patients’ styles or strengths and to incorporate their priorities in care.

Thus, my findings suggest a significant revision of earlier descriptions of effective transitional care. Whereas prior studies emphasized associations between
specific transitional care processes and patient preparedness for safe transitions to home (Coleman, Smith et al., 2004; Jack et al., 2009; Naylor et al., 1999), my findings underscore the significance of staff member interaction patterns that influence post-acute care patients’ preparedness for understanding new information, learning new self-care tasks, and assuming self-management home. Thus, the capacity for effective transitional care emerges from the staff interactions in ways that are greater than the sum of the completed transitional care tasks. I conclude that effective transitional care is embedded in these interactions and that true patient preparedness for discharge cannot occur without them.

To this end, my findings are congruent with recent studies that described positive associations between staff interactions and other effective nursing home processes, including care planning and care plan implementation (Colon-Emeric, Lekan-Rutledge et al., 2006; Piven et al., 2006), patient satisfaction with care (Gittell et al., 2008), and urinary incontinence management (S. S. Lyons, 2010; Rantz et al., 2010). With further research to confirm my findings in a more generalizable sample of nursing homes, it will be possible to design transitional care interventions which incorporate local interaction strategies as elements of transitional care processes. Moreover, with these new interventions, nursing home staff members can learn to intentionally and systematically use local interaction strategies to promote the effectiveness of transitional care and patient preparedness for discharge.
Although my analysis of the influence of local interaction strategies on transitional care processes reveals useful new ways of considering transitional care, my findings are limited by the exploratory nature of my research. The study was conducted in a single nursing home and with only three post-acute care patient care teams; thus my findings may lack generalizability. I also collected data in a facility with higher than average performance, where staff interactions may have been more intensive or frequent than in average nursing homes, further limiting the generalizability of my findings. However, my case study data included a total 89 interviews and 118 observations in the sample of three cases; thus, opportunities for follow-up confirmation of initial observations created opportunities for very rich descriptions of care. This abundance of contextual data permitted the researcher to explore patterns in staff interactions in considerable depth and to observe, over an average of 25 days in each case, how interactions shaped the effectiveness of transitional care processes over time. In addition, my inferences from the data were improved as it was also possible to compare individual events using data collected from multiple sources and points of view. Thus, what my findings lack in generalizability, they likely gain in depth and rich description, which permit my exploratory description of patterns in transitional care processes and analysis of the influence of interactions, over time, on the effectiveness of care processes.

My exploratory findings have implications for practice and research. No studies have described the work of nursing home staff members who prepare older, post-acute care patients for transitions to home; moreover, few studies have described the
approaches to relationship-building and communication used by care coordinators, in hospital-based studies of transitional care (Krichbaum, 2007; Naylor et al., 2009; Parry et al., 2006). My findings offer insights for staff approaches to connect, share information and make sense of new information with older adults. I observed that staff member use of local interaction strategies influenced the effectiveness of several transitional care processes, e.g., work to engage, encourage, assess, educate and plan care with older adults. Thus, staff members, who incorporate conscious and systematic use of local interaction strategies, will likely foster connections, information exchange and cognitive diversity needed to provide effective transitional care and to better prepare patients for self-management at home.

Further research is needed to describe and test the relationship between local interaction strategies and effective transitional care processes. First, research is needed to explore the way that professional staff members use local interaction strategies in their encounters with each other. This research is needed to describe the role of local interactions and their impact on the emergence of patient care-teams in the nursing home setting. In this study, I found that interdependent work completed in patient care teams reinforced – and likely improved - the transitional care process work of the other team members. Team members were not necessarily aware of the concept of a team and may not have known all of the members involved, but the team composition emerged for the investigator to observe as the members interacted to accomplish transitional care. Thus, research is needed to explicate the interdependent work on patient care-teams, to bring

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the team into focus for the work group and to identify structures that will support team interdependence, sequences of care, and protocols for collaboration which will optimize transitional care outcomes. For example, I observed that professional staff interactions that fostered connections with post-acute care patients appeared to create a foundation for subsequent information exchange and cognitive diversity. If further research were to confirm this pattern, then transitional care-team members might learn to prioritize their interaction behaviors. For example, staff might learn to foster connections in early stages in transitional care activities and reserve problem-solving interactions, such as suggesting alternatives or sensemaking, until professional staff members confirm that a connection with individual post-acute care patients has developed.

Second, research is needed to explore variations in local interaction strategies and transitional care process work in a diverse sample of nursing homes. Data from this new research are needed to develop testable hypotheses for developing transitional care interventions designed for post-acute care patients in nursing homes. Second, research is needed to describe the role of local interactions and their impact on the emergence of patient care-teams in the nursing home setting. In this study, I found that interdependent work completed by patient care team members reinforced – and likely improved - the transitional care process work of the other team members. Research is needed to explicate the interdependent work on patient care-teams, to bring the team into focus for the work group and to identify structures that will support team interdependence, sequences of care, and protocols for collaboration which will optimize transitional care.
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**Conclusion**

Using the Local Interaction Model to guide my study of transitional care, I observed that professional staff used local interaction strategies to connect, share new information and solve emerging problems with post-acute care patients, family members and other staff involved in care. My exploratory findings suggest that: (a) the task work related to evidence-based transitional care processes, was embedded in these interaction behaviors and (b) more frequent or intensive use of local interactions facilitated more effective transitional care process work. I conclude that local interaction strategies increase the capacity of professional staff to provide effective transitional care processes that prepare older, post-acute care patients for their transitions from nursing homes to home.
6. Dissertation Conclusion

This study explored transitional care provided for post-acute care patients by professional staff in a nursing home. Post-acute care patients are a vulnerable population of older adults with high risk for health complications as they transition between settings and providers of care (Coleman, Min et al., 2004; Gill et al., 2009). No prior studies have explored how existing staff in nursing homes prepare post-acute care patients for their transitions to home; however, using data from my pilot research and findings from this dissertation study, I learned that transitional care in nursing homes is provided in patient “care-teams,” usually comprised of individual older adults, family caregivers, physicians, nurses, rehabilitation therapists, social workers, and dieticians. In this study, professional care-team members were not adequately supported or trained to deliver transitional care needed by the frail and diverse older adults observed in my fieldwork; thus, as post-acute care patients transitioned from the nursing home to home, they were confused or frustrated by their care and lacked essential transitional care services needed to minimize their risk for suffering at home and recurrent acute changes in health.

This dissertation research yielded two primary discoveries. First, poor transitional care outcomes for post-acute care patients were a product of missing transitional care structures, fragmentary care processes and inconsistent staff awareness of interaction strategies that can promote effective transitional care processes. Nursing home managers and professional staff lacked awareness of transitional care and the need for intentional, coordinated care to minimize risks for complications as post-acute care patients
transitioned to home. Second, local interaction strategies promoted the effectiveness of transitional care processes; more specifically local interaction strategies, posited in the Local Interaction Model (Anderson & McDaniel, 2008), increased the capacity for professional staff to connect, share information and solve emerging problems in care which, in turn, fostered effectiveness in transitional care processes. Thus, intentional use of local interaction strategies may be a critical resource for improving care outcomes using existing nursing home staff. In addition to describing transitional care in the study nursing home, this dissertation research also refined a conceptual model and case study approach for replicating the study in multiple nursing homes to fully examine variations in transitional care approaches in nursing homes; this future research will provide the data from which to develop testable hypotheses to guide intervention studies designed to improve care.

**Conceptual Model of Transitional Care in Nursing Homes**

Findings from a systematic literature review of transitional care interventions revealed that nearly all prior research had been conducted in hospitals; thus, transitional care for post-acute care patients in nursing homes had not been studied. Further, findings indicated that effective transitional care interventions had three components on common: (a) a core set of transitional care processes that were used to prepare older adults for their transitions to home, (b) protocols for systematic implementation of care processes, and (c) added professional staff to and coordinate the implementation of protocols and deliver the new care processes. Although 25 of 32 interventions were effective, three significant
Weaknesses were noted across studies. First, no study had explored or tested an intervention for post-acute care patients in nursing homes; thus, it was not known whether nursing home staff were aware of transitional care as a set of services for reducing risks for complications in patient transitions, what transitional care structures and processes were currently available in nursing homes, and how effectively current processes in nursing homes prepared older adults for their transitions to home. Second, prior studies relied on added professional staff (e.g., care coordinators) to provide transitional care, thus there was no data to describe how existing staff members in nursing homes – and in other settings – might be resources for providing care. Finally, no prior studies – with or without added care coordinators – had studied the way that staff member interactions influenced the effectiveness of transitional care processes. Thus, the major implication of the review was that exploratory research was needed to explore two research aims: (a) describe trajectories of transitional care and care outcomes for older adults who obtain post-acute care in nursing homes, and (b) explore the influence of interactions, among groups of individual patients and their nursing home caregivers, on efforts to prepare patients for their discharges home.

A new conceptual model of transitional care for post-acute care in a nursing home was developed to guide the exploratory research. With a basis in Donabedian’s Model of Healthcare Quality (Donabedian, 1980; National Transitions of Care Coalition, 2008) and Anderson’s Local Interaction Model (Anderson & McDaniel, 2008), the new model facilitated the initial conceptualization of the case study approach that was needed to
explore transitional care *structures, processes, staff interactions, and outcomes* in one exploratory study (Anderson, Crabtree et al., 2005; Barley, 1990; Barley & Kunda, 2001; Pettigrew, 1995). Moreover, the conceptual model also guided research activities during the course of the case study research, including selection of subjects and processes for data collection, categories for coding units of raw data, concepts for thematic analysis, and relationships to describing associations between concepts.

Using the new conceptual model as a lens for data collection and analysis, data from a multiple case study were analyzed to address the two research aims. Findings from the study described strengths, gaps, and inconsistencies in transitional care and, in the following, the discussion of study findings is organized by the conceptual relationships described in the model: (a) the influence of transitional care structures on transitional care processes; (b) the influence of staff interaction strategies on the effectiveness of transitional care processes; and (c) the influence of transitional care processes on transitional care outcomes.

**The Influence of Transitional Care Structure on Transitional Care Processes**

In the Structure-Process-Outcome framework described by Donabedian, structure refers to the characteristics of healthcare settings which include physical facilities, equipment, human resources, organizational strategies and protocols, and the ways that healthcare settings implement care through models of care and staff education (Donabedian, 1980). In the dissertation study nursing home, organizational structures to facilitate transitional care were extraordinarily limited: (a) administrators, managers, and
professional staff were not aware of the concept of transitional care; (b) there were no protocols which described implementation of transitional care processes; (c) there was no systematic or consistent model of care in place to assure that patients received transitional care services; and (d) professional staff, who provided aspects of transitional care, worked without awareness of evidence-based practices (Kripalani, Jackson et al., 2007; Naylor et al., 2009; Toles et al., under review) or resources for coordinating their work as teams. Thus, transitional care processes were not provided by design, rather, aspects of transitional care processes emerged from departmental routines or disciplinary task work designed for other purposes. Aspects of transitional care planning, for example, which emphasizes the patient and caregiver understanding of the resources and strategies they will use to continue care at home (National Transitions of Care Coalition, 2008; Naylor et al., 2009), was provided in part by social work, in part by rehabilitation therapy; notably, this care process was inconsistently or partially completed in each case study. Thus, lacking systemic organization, the delivery of transitional care processes was fragmentary and poorly designed to meet patient needs.

Evidence from clinical trials of hospital-based transitional care interventions suggested that this fragmentary and partial transitional care is remediable with systemic procedures that define transitional care team member roles and responsibilities, provide access to case management services for coordinating transitions, support teams with education materials, and monitor transitional care outcomes with benchmarks and quality control processes to ensure quality (Greenwald & Jack, 2009; Naylor & Sochalski, 2010;
Parrish, O'Malley, Adams, Adams, & Coleman, 2009). With systemic structure, several difficulties in delivery of transitional care may be corrected (Naylor et al., 2009; Naylor & Sochalski, 2010). For example, the timing of care processes might easily be remediable. The use of schedules for completing individual tasks at specified times in patient stays in the facility (for example, scheduling a family member visit to the facility) would prevent delays related to incomplete assessments, inconsistent planning related to last-minute adjustments to transition planning, and staff frustration from role confusion in task work, and patient confusion related to erratic patterns in care delivery and changes in plans.

Further research is needed to evaluate systemic structures which might foster awareness among staff members that their transitional care work occurs in patient “care-teams” (M. M. Godfrey, Nelson, Wasson, Mohr, & Batalden, 2003). In each cases study, staff members worked very closely with peers across disciplines; yet, there were no structures in place to coordinate the work of these teams, even to the extent that care-team members became aware of one another as members of the same care-team. If research across multiple nursing homes were to find that care-teams were consistently units for provision of transitional care in nursing homes, then care might be significantly improved by developing processes for cultivating coordination within these units and intentionally organizing care delivery through these small groups. Systemic support for “care-teams” for example, might support conversations among staff members from
different disciplines, perhaps most significantly the connection between rehabilitation staff and nursing.

In summary, transitional care structures, which organize system-level support for transitional care processes, were deficient in the study nursing home; evidence from intervention studies in hospitals indicate that these structures support care processes and contribute to the effectiveness of care processes (Coleman et al., 2006; Jack et al., 2009; Kaplan, 2007; Naylor et al., 2004). Therefore, a very important first step in revision of transitional care in nursing homes may be to carefully assess systemic supports for transitional care, evaluate professional staff roles and responsibilities for providing this care, and develop protocols for ensuring that evidence-based transitional care processes are provided and the quality of the care is monitored with quality assurance processes.

**The Influence of Staff Interactions on Transitional Care Processes**

As described in the Local Interaction Model, local interaction strategies are staff behaviors which promote the capacities of care-team members to connect, share new information and solve emerging problems with post-acute care patients, family members and other staff involved in care (Anderson & McDaniel, 2008). Findings from this dissertation study indicated that professional staff members, who more intensively or frequently used local interaction strategies in their encounters with post-acute care patients, promoted these capacities for care which, in turn, facilitated more effective transitional care. For example, when staff members listened, showed respect, sought assistance, and coached patients, their behaviors fostered connections or “relationships”
with older, post-acute care patients. In turn, these connections and new relationships facilitated transitional care process work, such as learning patients’ preferences, engaging them in plans of care, helping them accept difficult feedback, and working together to solve complications or problems in care.

These findings suggest, moreover, that local interaction strategies promoted effective transitional care work. Thus it was one thing for professional staff to ask routine questions and quickly write down patient responses; it was another, more effective approach, for staff members to show respect, seek the patient’s assistance, foster a sense of connection, and then work toward more complex tasks, such as giving and receiving information. The question of how local interactions influence care processes need additional study, but these findings offer a significant addition to the common conceptualization of transitional care; local interaction strategies may be the means through which “care coordinators” (in earlier intervention studies of transitional care) implemented or “coordinated” transitional care processes. This study of local interaction strategies, moreover, suggests that the capacity for effective transitional care emerges from the staff interactions in ways that may be greater than the sum of the completed transitional care tasks. In other words, local interaction strategies may exert a direct effect on older adult preparedness for discharge. Thus, this finding reveals how transitional care may be coordinated by the professional staff in patient care-teams in nursing homes.

Understanding of local interaction strategies, as a resource for coordination of transitional care, provides a useful starting point for considering ways to create more
effective transitional care in nursing homes. In a patient care-team, where communication, relationships and coordination of care were weak or inconsistent, changes in profession staff use of local interaction strategies may be an important resource for addressing these limitations. For example, in one care-team, the post-acute care patient had been the focus of intensive efforts designed to increase her participation in rehabilitation therapy - no matter how professional staff enjoined her to participate, she consistently refused. The question arises, how could this care-team have altered this course and created a more successful treatment with the patient? One solution would be to place greater emphasis on the patient’s stated wishes - which were to go home, not to participate in rehabilitation therapy. This tactic of being more “patient-centered” would entail patterns of very specific local interaction strategies, such as seeking her assistance in planning, verifying the meaning of her comments, explaining resources that were available in the facility, accepting her feedback, and working with her to make sense of her focus on returning home and the need to provide her with restorative care. In this sense, being more patient-centered might improve the effectiveness of transitional care through specific local interactions which foster negotiation of a compromise in transitional care priorities – with an alternative approach, for example, the staff might agree to be more gentle with rehabilitation exercises, but request more intensive work to plan for extra supports at home.

Because local interaction strategies were dispersed in care-team encounters, research is needed to identify junctures and sequences in transitional care processes
where staff members may need to be especially intentional with the interactions strategies that are used to promote effective transitional care. The early findings in this study suggest that interactions that promote connections may facilitate information exchange and problem solving and, therefore, may need to precede them when engaging new patients or team members. This study indicates that local interaction strategies increase the capacity of professional staff to provide effective transitional care processes, thus, they likely have a large role in emerging efforts to improve transitional care outcomes for post-acute care patients in nursing homes. To name but a few initial targets for this new work, local interaction strategies may play central role in efforts to: (a) promote connections between professional staff members on individual patient care-teams, (b) facilitate deeper engagement with patient family caregivers, (c) support information flow between geographically dispersed care-team members, such as therapists and physicians or LPNs and middle managers, and (d) increase the effectiveness of multi-disciplinary care processes, such as transition planning and creation of written instructions to guide care at home.

The Influence of Care Processes on Transitional Care Outcomes

At the time of this study, there was an emerging consensus of the care processes necessary to provide adequate transitional care for older adults (Chiu & Newcomer, 2007; Kripalani, Jackson et al., 2007; W. L. Lyons & Coleman, 2009; National Transitions of Care Coalition, 2008; Naylor et al., 2009); however, there was no stable definition or agreement regarding outcome measures of transitional care. Researchers
appeared to be divided among those who sought “distal” outcome measures, which indicated long-term effects of transitional care (K. S. Boockvar et al., 2004; Kind et al., 2007; Murtaugh & Litke, 2002) and those who sought to understand immediate or “proximal” effects of transitional care interventions on patient preparedness for self-care at the outset of transitions in care (Coleman, Mahoney, & Parry, 2005; Jack et al., 2009; Parry et al., 2008). The purpose of this study was to describe outcomes of transitional care, specifically related to task work provided in a nursing home; thus, “proximal” measures of outcomes were used to assess the immediate effects of transitional care as described by patients, professional staff and the researcher.

The measures of transitional care processes and outcomes were developed from results of a systematic literature review of intervention studies of transitional care. In a literature review, eleven transitional care processes were identified that were most commonly provided in effective transitional care interventions; these eleven care processes were used in the study as a preliminary list of “best practices” to guide the description of transitional care (see Table 2). These eleven transitional care processes were fit into Donabedian’s Structure-Process-Outcomes framework as follows: (a) transitional care processes were defined as the set of eleven transitional care processes from the literature review; and (b) transitional care outcomes were defined as patient, caregiver and researcher assessments of the completion of eleven transitional care processes from the literature review. Although further research will be needed to explore the utility, reliability and validity of these measures in other studies and nursing homes,
these novel process and outcomes measures yielded valuable descriptions of transitional care processes and outcomes in three case studies (see Table 4 and Table 6). In addition, these measures were easy to use in field work and data analysis.

In general, the nursing home did not have care processes that were explicitly designed for providing transitional care; rather, aspects of transitional care emerged from processes designed for other purposes (e.g., fragments of assessments of transitional care emerged in occupational therapist assessments and separate fragments emerged in social worker assessments). Moreover, completion of transitional care processes - the outcomes measure in the study - followed a similar and predictable pattern. Outcomes of care tended to be complete when the outcome measured captured a care process that did not require a coordinated activity among multiple staff; whereas, transitional care outcomes, which assessed a care processes that did not fit into any existing professional staff role description, either required a clinician order for completion, was only partially completed, or it was not addressed at all. Thus, many transitional care processes in the facility were inconsistent and fragmentary; moreover, measures of outcomes indicated that patients transitioned from the facility to home without essential preparations, such as teaching to manage acute changes in care, transitional care plans, and written instructions to guide care at home.

These findings are certainly not unique to nursing homes and appear to characterize widespread concerns regarding older adult transitions in care across the wider continuum of care. In his summary of qualitative studies of transitional care
outcomes, Coleman (2005) described older adult perceptions of preparedness for transitions in care as follows:

These patients and their caregivers express feelings of anxiety because of a lack of preparation, a lack of understanding for self-care activities, a sense of abandonment attributable to the inability to contact an appropriate health care practitioner for guidance, and an overall disregard for their preferences and input into the design of the care plan.

Thus, the outcomes findings in this study echo a much larger problem across the healthcare continuum – older adults confront daunting challenges as they complete acute and post-acute care and set out to continue care at home without the necessary preparation to do so (K.S. Boockvar et al., 2004; Boult et al., 2009; Coleman & Berenson, 2004; Forster et al., 2003; Kind et al., 2007; Moore et al., 2007; Murtaugh & Litke, 2002; Sofaer, 2009; Wolff et al., 2008). Significantly though, findings in this study identified many targets for improving transitional care in nursing homes: (a) structures in care that might be added to facilitate care processes and promote the interdependent work of patient care-teams, providing some immediate steps for improving care; (b) care processes, identified in my literature review of effective intervention studies (several of which may require minimal cost and adjustment to existing care practices); (c) staff interaction strategies that promote the effectiveness of care through their effects on relationships, communication and development of new ideas to solve problems in care; and (d) systematic measurement of proximal transitional
measures to evaluate the quality of transitional care that is provided in nursing homes. My qualitative evaluation of work provided in the study nursing home indicated that professional staff members and managers in nursing homes have a very strong desire to provide excellent care for older adults, thus, the task at hand will be to deliver resources to guide these caring workers as they manage their work.

**Limitations**

The findings in this study are limited by the selection bias in the setting of the study, the effects of participation in an observation on study participants, and the limited generalizability of a study in one nursing home and three patient care-teams.

The study was set in a single nursing home that was purposefully selected based on its rating in Nursing Home Compare as a better than average nursing facility and for its reputation for providing high quality post-acute care. Thus, there is selection bias in the study setting which limits the generalizability of the study findings. The facility was privately owned and had a religious affiliation which further limits the generalizability of the findings. In addition, post-acute care patients were not treated on a designated “transitional care unit,” which may make study findings incomparable to facilities with those units. Future study will need to explore transitional care with different ownership status, for profit status, and ranking in Nursing Home Compare.

There were three patients selected for participation in the study which limits the generalizability of the findings. Participants, however, were purposefully selected and included two women and one man, two Caucasians and one African American, three
distinct medical presentations, and three distinct family support structures. Thus, though the sample was limited in size, there was significant variability in the sample which permitted some inferences to be drawn about the applicability of care processes to the diversity of case presentations.

Finally, the study was limited by the nature of research in which an observer, who is not a participant in work activities, records the activities of people at work. The nature of field work and interviews with study participants may have been intrusive for some staff members and may have limited the information that could be learned. Staff members may have felt uncomfortable about sharing work processes, feelings about co-workers, and disclosing their confidence with patients in their care. This data in the study may have been partial or distorted in ways to protect participants from full disclosure. Several measures were taken to reduce the effects of this limitation, including collection of data from multiple subjects, collection of data at multiple points in time, data collection in multiple cases, and use of multiple methods of data collection – each of these data collection methods yielded data which were triangulated in analysis to create a synthetic description of phenomena that helped to compensate for this limitation in the dependability of study findings.

Despite these limitations in the research, the use of case study design – in a purposively selected setting and conducted by single research exploring a limited number of cases – facilitated detailed description of structures, processes, interactions and outcomes of transitional care in a nursing home; moreover, the use of the case study
design also facilitated evaluation of a new conceptual model of transitional care. Thus, the same features of the study design, which limited generalizability of the study findings, also were design elements which fostered inductive conceptualization of the way transitional care emerged in the nursing home. As noted by Eisenhardt (1989), case study research “uses cases as the basis from which to develop theory inductively. The theory is emergent in the sense that it is situated in and developed by recognizing patterns of relationships among constructs within and across cases and their underlying logical arguments.” Accordingly, limitations in the study design each offered unique strengths for the evaluation of the new transitional care conceptualization: (a) the purposeful selection of a nursing home with superior performance facilitated study in a setting where superior transitional care practices were expected to be more prevalent; (b) the inclusion of only three cases in the multiple case, longitudinal design permitted rich descriptions of care structures, processes, interactions, and outcomes and the identification of strengths, gaps and inconsistencies in transitional care; and (c) the use of observations and interviews with study participants facilitated rich data from multiple types and sources of data that was triangulated in analyses of the data and subsequently used to describe patterns in the emergence of transitional care.

**Implications for Practice**

Findings from this study provide some basic tools for nursing homes leaders and staff to address the transitional care needs of older, post-acute care patients in the areas of structure, process, staff interactions, outcomes framework.
Structure

Study findings suggest seven new ideas for developing organizational structure for supporting transitional care processes:

- Help the professional staff members who provide transitional care learn of the risks associated with older adult transitions in care.

- Help professional staff members who provide transitional care learn care processes that are associated with improved older adult transitional care outcomes.

- Address the special needs of “short stay” post-acute care patients in the mission statement of nursing facilities to raise awareness of the unique needs of this patient population in the long-term setting of care.

- Evaluate the quality of transitional care that is provided at the level of the nursing facility; the guide for assessing transitional care, described in Chapter Two of this study, will be a useful resource for this process.

- Develop a transitional care protocol for a facility-level transitional care approach and develop protocols for individual care processes. In organizational settings, ensure that organizational protocols fit with the resources, professional staffing, and patient populations in individual facilities.
• Evaluate the roles of individual disciplines in overall transitional care process planning, particularly to the roles of nurses, which, in this study, appear to be seriously under-developed and under-specified.

• Support the development of professional staff awareness of the involvement in informal networks of staff; if professional “care-teams” develop informally, seek ways to facilitate staff awareness of their involvement in these teams and their facility with intentionally shaping group processes within the teams.

Process

Study findings suggest eight new ideas for developing transitional care processes for improving transitional care outcomes:

• Ensure that professional staff members understand the transitional care processes defined in the protocols designed to support integrated transitional care.

• Assess how transitional care processes are coordinated, particularly when processes involve multiple health care disciplines or professional staff members who work in geographically separate areas.

• Ensure that patient preferences and needs are assessed and the degree to which these preferences are explicitly used to plan and guide care. Study findings indicated that planning was often late secondary to late
discoveries of patient preferences and the need to revise overall planning late in post-acute care stays.

- Seek to involve family members in transitional care activities. Later rehabilitation therapy sessions may be important opportunities to help family members appreciate strengths, weaknesses and needed supports for safe transitions when patients return to home. Further, social work will need to actively and early in admissions seek to identify family supports and to scrutinize their capacity, commitment and willingness to assist with transitional care activities.

- Consider the development of schedules for critical elements in transitional care planning, such as the date when the exact details of patient benefits for home care are provided to the patient and team, the date when transitional care plans are written and incorporated into routine teaching processes, and the date when referrals and follow-up appointments are completed and documented for patient reference at home.

- Seek for transitional care processes which rely on physicians, nurse practitioners and other individual staff for completion; explore alternatives to reliance on individual staff, such as new care processes that can be shared by groups of staff; the goal of this step would be to identify potential delays or inconsistencies in care that may be related to high workload issues.
• Carefully ensure that “discharge planning” is not substituted for active transitional care planning. The findings in this study revealed that assessment and referral does not provide detailed advanced planning, patient/family caregiver engagement, or careful description of the strengths and weakness in transitional care plans.

• Evaluate care planning processes for post-acute care patients and ensure that delays in care planning do not delay transitional care planning and teaching.

**Staff Interactions**

Study findings suggest seven new ideas for developing interaction strategies to foster effective transitional care processes and to prepare older adults for transitions to home:

• Give staff members a list of local interaction strategies and help them to appreciate the way these common behaviors have powerful effects on transitional care and other care processes.

• Help staff members to learn that broad activities, such as “creating relationships,” “communicating” or “coordinating care” begin with patterns of simple behaviors.

• Encourage staff members to practice using local interaction strategies and strive to create a culture that rewards use of these behaviors.
• Avoid confusing the local interaction strategies with more global constructs such as “patient-centered care,” which are not precise behaviors that staff can do.

• Specifically focus on using local interaction strategies to promote transitional care activities related to patient engagement, assessment, planning, and teaching.

• Confront staff members who work routinely in small groups and create opportunities for group members to reflect collectively on ways that more intentional use of interaction strategies might promote group or team processes; in particular, encourage teams or small groups to explore the way interaction strategies might be used to increase the problem solving potential of the group.

• Teach staff members that use of local interaction strategies may directly influence older adult preparedness for discharge.

**Outcomes**

Study findings suggest four new ideas for identifying and measuring outcomes to foster more consistent and effective transitional care:

• Develop and implement a process to systematically interview selected patients and related professional staff to learn their perceptions of the patients’ preparedness for safe transitions to home.
• Use findings from the interviews to assess for themes in care that might be used to adapt care processes to patient and staff member needs.

• Use the guide for assessing transitional care, described in Chapter Two of this study, to guide assessment of the completeness of transitional care for individual patients.

• Solicit input from community agencies and provider to identify ways to improve hand-offs in care and processes for joint planning in care.

Implications for Research

In this study, findings from a longitudinal, multiple case study of transitional care, for three post-acute care patients in a single nursing home, described systemic structure and the lack of staff awareness of transitional care; fragmentary transitional care processes provided in a nursing home; local interaction strategies among staff and patients; and the rather poor transitional care outcomes for three very different older adults. These findings suggest that the conceptual model and research approach used in the study provide valuable data and that further research, using this model and approach, is warranted for research with greater generalizability. Thus, research is needed to expand this case study research to multiple nursing homes; specifically, to describe facility-level variations in transitional care and facilitate development of testable hypotheses for future research. Ideally, testable hypotheses will be developed to explain the influence of structure on process, interactions on process, interactions on outcomes, and process on outcomes. With testable hypotheses, based on descriptions of between-facility
transitional care practices, development and pilot testing of a transitional care intervention will be the next logical step for research in this setting. A participatory research approach may be useful for development and piloting of the new intervention.

There are many potential variations in transitional care intervention approaches and careful research is needed to determine which approaches are most helpful in the post-acute care setting. For example, there is a wide range of possible care coordination support. Nursing facilities might provide transitional care up to the day of discharge; they might provide transitional care plus one or two added phone calls for reinforcement; they might provide transitional care and referral to a community agency for care coordination follow-up; a consortium of nursing facilities might contract with a care coordinator to provide more extended “coaching” with high risk cases, etc. It does not appear that the nursing home industry has begun to recognize the enormous potential for collaboration among themselves and potential community partners for enhancing transitional care services for older adults. Research is urgently needed to explore this potential. As inevitable cuts in Medicare arrive, however, the standard 21 day post-acute care reimbursement may be questioned; further, if reimbursement and days for post-acute care services were reduced, nursing home planners and administrators may be compelled, much as hospitals have been, to redress their planning habits as they confront even more restrictive time constraints. Careful coordination of transitional care service will be imperative under these circumstances and much further research will be needed to protect vulnerable, older adults.
Findings in this study underscore the significant potential for local interaction strategies as a resource to increase care-team capacities for improving care. The finding that local interaction strategies fostered effective transitional care suggests that other multi-factorial care processes would be positively affected as well; in particular, the complex care related to management of geriatric syndromes such as infection, incontinence, falls, and changes in mental status. Much further research is needed in these areas. The literature of relationship-oriented management practices in nursing homes, moreover, suggested that intervention studies are needed in this area.

Finally, the findings suggest that “care-teams” may be a unit for patient care with much potential for development. Research is needed to explore the dynamics of care-teams and to study models of care-teams which can be used in other settings of care, such as high risk pregnancy units, acute mental health units, medical-psychiatric units, and possibly trauma services in medical centers. The goal of this research will be to discover ways to help care-team members recognize members of the team and to foster networks for communication and problem solving like those observed in findings in this study.
Appendix A: Study Methods

In this appendix, the study design and methods are described completely. A longitudinal, multiple case study design was used to prospectively study trajectories of transitional care structures, processes, outcomes of transitional care, and the staff interactions that facilitate or impede transitional care from the day of admission through discharge, for three older adults who receive post-acute care in a single nursing home. Three cases were selected for study to explore two research aims: (a) describe the trajectory of transitional care and outcomes for older adults who obtain post-acute care in nursing homes from the day of admission through discharge and (b) explore the influence of interactions, among selected older adult patients and their group of nursing home caregivers, on their ability to accomplish transitional care processes.

Preliminary studies

I conducted two preliminary studies: 1) analysis of local interaction strategies using data from Anderson’s study “Outcomes of Nursing Management Practice in Nursing Homes” (RO1NR03178) and 2) a supervised feasibility study conducted in one nursing home, called “Nursing Home Interactions – a Feasibility Study.” Both studies had IRB approval.

Study 1. Anderson’s study explored “the relationship patterns and nursing management practices that enable nursing homes to attain high quality resident outcomes” (Anderson, 2001). Using a multiple-case study approach, Anderson’s
research team studied staff relationship patterns and nursing management practices in 4 to 6 month case studies in 8 nursing homes, including 4 formative cases and 4 replication cases. Anderson and her team analyzed the case study data, (e.g., interview transcripts, observation field notes, survey results and documents) and discovered a set of staff interaction behaviors, called local interaction strategies, which were consistently associated with superior information exchange, staff inter-connections, and diversity of opinion in problem solving (Anderson & McDaniel, 2008). For preliminary study #1, I selected the 4 replication cases for further analysis of field notes from 30 observation days and transcripts from 22 in-depth depth interviews with nursing and administrative staff. Using three of Anderson’s codes – exchange information, connect, and build cognitive diversity – I coded 172 data units which revealed patterns of staff interactions. I further analyzed the data in two ways: (a) using content analysis, I organized staff interactions into groups by theme and, in turn, I analyzed themes to describe discrete events in nursing home patient care in which staff interactions fostered or impeded care processes or planning and (b) using counts from content analysis, I quantified staff interactions to characterize global patterns of interactions in each nursing home. Moreover, to describe the impact of staff interactions on quality of care, I also constructed simple matrices to compare nursing home state survey data and staff interaction patterns among the four nursing homes. Results from the feasibility study indicated that observational and interview data could be coded and analyzed to describe staff interaction behaviors and reveal patterns of interaction. For example, findings in
one case identified a dialogue between two certified nursing assistance in which the connection between the two staff members fostered detailed communication about the most effective approach for encouraging a very fragile patient to eat. The detail in the data facilitated a description of the staff connection and the direct influence of the staff connection on patient outcomes. Follow-up interviews with one of the staff members, moreover, revealed how the observed interaction was an ideal exchange which was lacking in her dialogues with her direct supervisor. Results from the feasibility also indicated that patterns of staff interactions were associated with important differences in overall nursing home performance, such as rates of nursing home survey health deficiencies.

Study 2. Over 4 months in 2009 and 2010, I conducted a study (Toles, Anderson, Barroso, & McConnell, 2010) to explore the feasibility of using case study methodology to describe transitional care provided for post-acute care patients in a nursing home. I collected data from nursing home staff and two post-acute care patients in 25 interviews, 13 field observations, 8 staff meetings, 10 reviews of medical charts and 2 surveys. Using manifest (e.g., salient, easily observed rather than interpreted meaning of text) content analysis (Ayres, Kavanaugh, & Knafl, 2003; Morgan, 1993), I analyzed data from two cases and described the quality of the data in terms of what I could learn about transitional care structures and procedures, and sequences of transitional care task-work and patient outcomes. Analysis revealed that a longitudinal case study approach was the optimal means for describing the development of trajectories of transitional care, older
adult responses to care, and identifying gaps or inconsistencies in transitional care within patient trajectories. The main implication of the feasibility study was that detailed descriptions of care were needed to identify and evaluate (a) general patterns of transitional care in a nursing home, (b) the types of gaps in care that expose post-acute care patients to preventable risk, and (c) potential points for improvement in care that might be remedied with changes in staff interactions or transitional care processes. Results from the feasibility study were also used to develop the conceptualization of transitional care in a nursing home that was used in the dissertation research.

**Setting**

The dissertation research was purposefully set within a skilled nursing facility in Durham, North Carolina, that provides post-acute for more than 120 older adults each year. The home was selected based on the high quality of post-acute care provided in the facility and on data in Nursing Home Compare which indicated greater than average quality of care.

**Sample**

As determined in the feasibility study, each case consisted of members of the patient “care-team,” defined as one post-acute care patient, a family caregiver, and 6 – 8 nursing home staff (e.g., nurses, physicians, nurse practitioners, social workers, and occupational therapists, physical therapists, and speech therapists). Purposive sampling was used to maximize variation in care needs and in the group of caregivers assigned to
cases. The goal of sampling was to recruit 3 patients with different diagnoses and, to the extent possible, a unique set of caregivers. Because this facility has 3 social workers, 2 attending physicians, 2 fellow physicians, and 4 nurse practitioners, it was feasible to recruit care-teams with little overlap between members. The patient was recruited first, followed by recruitment of that patient’s caregivers. The inclusion criteria for post-acute care patients were: (a) expected length of stay of 15 - 45 days as determined by a physician, and (b) clinical problem (e.g., hip fracture and stroke rehabilitation with or without co-morbid conditions such as congestive heart failure) that differed from other those of patients already enrolled. Exclusion criteria included: (a) physician assessment that study participation would disrupt the individual’s care, (b) moderate to severe cognitive impairment, (Rantz et al., 2006) and (c) inability to speak English. Family caregivers that were available and willing to participate were enrolled in the study. Recruitment of cases continued until I had complete data for 3 case studies. For example, if a patient was discharged prior to 15 days, I would not have had enough time to collect complete, comparable case data and would have needed to recruit a new case to replace the incomplete case.

Timelines

Data were collected in the following sequence: assessment of nursing home structure, and then sequential data collection and preliminary analysis for subsequent case studies (see Table 11)
### Table 11 Estimated Timeline

<table>
<thead>
<tr>
<th>Activity</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
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<tbody>
<tr>
<td>Assess facility structure</td>
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An estimated data collection schedule for individual case studies is presented in Table 12. In feasibility study #2, I determined that the average length of stay for post-acute care was 20 days and thus I estimated that data collection in each case would require approximately 4 weeks of field work, including observations each day, and approximately 15 informal interviews during observations, 15 formal interviews, 20 chart reviews, one self-report survey, and documents.
Table 12 Estimated Data Collection Schedule for an Individual Case

| Day in nursing home | Subject 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---------------------|-----------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Resident            | c         | f |   |   |   |   | f |   | s | f  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Caregiver           | c         |   |   | f |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| OT                  | c         |   |   |   | o |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PT                  | c         |   |   |   |   | o |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| SW                  | c         |   |   |   |   |   | o |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| LPN                 | c         | o |   |   |   |   |   | o |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| NP                  | c         | o |   |   |   |   |   | o |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| MD                  | c         | o |   |   | o |   |   |   | f |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| RN                  | c         | o |   |   | o | f |   |   | f |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Other staff         | c         | o |   |   | o | f |   |   | f |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Other data sources  |           |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Meetings            | o         | o |   |   | o | o | o | o | o |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Chart               | r         | r | r | r | r | r | r | r | r |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Document            | r         | r | r | r | r | r | r | r | r |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Key: c = consent, f = formal interview, o = observation and informal interview, s = survey, r = chart or document review

Data Collection Approaches and Study Variables

Multiple sources and types of data were collected in each case study, including formal interviews with post-acute care patients, family caregivers, and nursing home staff, daily observations with staff and patients, informal interviews during observations, chart reviews, documents, and patient self-report surveys with the Care Transitions Measure-15. Data collection approaches are described for the main variables below.

Patient Characteristics were described at baseline and longitudinally until the day of discharge. Data from formal interviews were used to assess patient and caregiver ability to participate in planning as well as psychosocial facilitators and barriers to the transition home. Chart reviews were conducted to document patient baseline health condition and treatments as well as changes in condition and medical, nursing and rehabilitation treatments.
Transitional Care Structures were explored at baseline. Document reviews and formal interviews with the facility administrator and director of nursing were used to assess organizational policies, procedures and strategies that facilitate transitional care will be assessed. Moreover, within each case, observations, chart reviews and documents were used to identify changes in care-team membership and to identify any other organizational features that facilitate or impede transitional care processes.

Transitional Care Processes were assessed longitudinally in each case study with observations, interviews, chart reviews, and reviews of documents. Observations and interviews were used to explore the task-work of transitional care. Formal interviews were used to gather care-team member perceptions of the quality and intensity of transitional care processes, explanations about how processes were accomplished and how care processes influenced the quality and degree of patient preparedness for discharge. Medical charts and related documents were reviewed to assess care-team member descriptions/records of care and their written instructions for continuing care in the nursing facility or after discharge.

Transitional Care Interactions were assessed longitudinally in each case study with observations and interviews to explore care-team member interactions in meetings, chance encounters, and scheduled task work, such as therapy sessions, social work visits, and clinician rounds. These assessments focused on how interactions influenced transitional care processes (e.g., how many necessary tasks were completed, on time, accurately). Formal interviews were used to gather care-team member explanations about
how the quality and intensity of staff interactions influenced completing transitional care processes.

Transitional Care Outcomes are indicators of patient preparedness for discharge and were assessed using (a) formal interviews with all care-team members, including the patient, (b) observations of patient outcomes related to observed staff care process activities, (c) documents which indicated planning, education or communication with family caregivers and facility or community providers, and (d) patient self-report surveys using the Care Transitions Measure-15. Formal Interviews were used to identify the transitional care goals of the patient and care team and the degree to which they believed the goals were achieved, as well as perceptions of patient preparedness for discharge. Observations were used to assess the immediate outcomes from observed transitional care process activities. Chart review data were collected to record medical, nursing and rehabilitation therapy goals, progress and endpoints. Documents were also abstracted, including discharge summaries, written instructions, education materials, and documents provided to caregivers and community providers.

Patient self-report of preparedness for discharge were also measured using the Care Transitions Measure-15, an instrument that has been used in prior hospital-based research. The Care Transitions Measure-15 was used to assess patient preparedness for discharge in three domains: inclusion of older adult preferences in planning, education regarding pending treatments and appointments, and empowerment of older adults to assume responsibility for health care activities. Construct validity for the measure was
established with positive inter-item correlations with another measure of a similar construct, the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey and patterns of decreased re-hospitalization and emergency department utilization. Internal consistency and reliability of the measure was established with exploratory and confirmatory factor analyses (Coleman et al., 2002). The Care Transitions Measure-15 has not been validated for studies in nursing homes, thus I adapted the measure for use in nursing homes with approval from Coleman.

**Study Procedures**

Recruitment and Consent procedures were completed for each case using a five-step process. Step 1: Daily, I collaborated with medical staff in the skilled nursing facility to identify newly admitted older adults that are potential participants. Step 2: Medical staff or I approached newly admitted patients, who met study inclusion and exclusion criteria, to discuss participation in the study. Step 3: I discussed the responsibility and risk of participation and requested study consent of the patient. When patient consent was received, in step 4, I observed care and checked the medical record to identify staff care-team members and approached potential staff participants to obtain consent. **Step 5:** I approached family caregivers, when available in the case, to discuss the risks of study participation and requested consent. When consent was obtained for a complete care-team, data collection began for that case.
**Data Collection Procedures**

Formal Interviews were conducted with care-team members in a quiet, private location. Interviews were 30 to 60 minutes in length and were digitally recorded. Interviews were professionally transcribed and re-read for accuracy of transcription. Observations and informal interviews, following procedures developed in the feasibility study, occurred daily and were goal-directed to target transitional care activities, such as meetings, rounds on units, and nursing teaching or planning (Anderson, Crabtree et al., 2005). To make observations, I accompanied care-team members as they worked and recorded observations with pen and paper; moreover, daily, I entered handwritten field notes into Microsoft Word. In some cases, during observations, I clarified observations with informal interviews that were recorded with pen and paper; notes were typed into Word files daily. Chart Reviews were conducted daily, using pen and paper. I read the Care Transitions-15 survey with patient participants and recorded their responses with pen and paper; data were entered and saved in Microsoft Excel files. All data were de-identified and matched using assigned case numbers known only by dissertation committee chair and me. Paper copies of all study records were stored in a locked cabinet inside of a locked office in the Duke University School of Nursing. Electronic data files and digital recordings were saved in a secure server in the Duke University School of Nursing.
Procedures for Assuring Rigor in Case Studies were guided by a study protocol developed in Anderson’s prior case study research and in my feasibility study. The protocol included strategies for ensuring rigor described below (see Table 13).

**Table 13 Strategies for Assuring Case Study Rigor**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Strategies</th>
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<tbody>
<tr>
<td><strong>Credibility</strong></td>
<td>Meetings with dissertation committee members to review data collection and analysis procedures,</td>
</tr>
<tr>
<td></td>
<td>Reviews of data collection and analysis by committee members to assess my biases,</td>
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<td></td>
<td>Interim case reports to explore findings with nursing home staff,</td>
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<td></td>
<td>Iterative process for data collection and preliminary analysis to ensure complete data collection.</td>
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<tr>
<td><strong>Dependability</strong></td>
<td>Observations, interviews, surveys and chart reviews to follow protocol, including creation of an audit trail,</td>
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<td></td>
<td>Standardized data collection measures and templates to ensure consistency in data reporting,</td>
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<td></td>
<td>My reviews of professional transcription to ensure accuracy of transcripts,</td>
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<td></td>
<td>Use of data codes and timing markers to ensure consistent data collection between cases,</td>
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<td></td>
<td>Redundant coding of 10% of data to ensure reliability of the coding,</td>
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<td></td>
<td>Concurrent data collection and analysis will ensure that data collection is consistent between cases.</td>
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<tr>
<td><strong>Confirmability</strong></td>
<td>Interim case reports to explore findings with nursing home staff and dissertation committee members,</td>
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<td>Analysis with triangulation between multiple forms of data to strengthen inferences,</td>
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<tr>
<td></td>
<td>Comparison of findings with current of nursing home literature.</td>
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<tr>
<td><strong>Transferability</strong></td>
<td>Purposive selection of care-teams to enhance variation in the sample,</td>
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<td></td>
<td>Rich detail in data to facilitate comparison of findings to other contexts,</td>
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<td></td>
<td>Between-case analysis of the data to compare of study findings with reports in published literature,</td>
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<tr>
<td></td>
<td>Multiple case studies to support hypothesis-generation.</td>
</tr>
</tbody>
</table>

**Data Analysis**

The goal of analysis was to describe and understand the way that nursing home staff members prepare post-acute care patients (and their family caregivers) for discharge from the nursing home to home. The case study data were analyzed with manifest content analysis, a qualitative approach used to explore visible, obvious meaning in the
data from multiple sources (Hsieh & Shannon, 2005) (e.g., interview transcripts and field notes). The qualitative analysis progressed in stages: (a) data were coded with sets of \textit{a priori} codes which identify core characteristics of the variables described in the orienting framework above (e.g., transitional care structure, process, interactions, and outcomes); (b) for data that could not be coded with \textit{a priori} codes, new codes were developed to ensure that all case study data is coded; (c) coded data were sorted into categories and subcategories that became the raw units for subsequent thematic analysis; (d) the raw units of data were then condensed into themes, explanations, timelines, and narratives about the transitional care provided for individual patients. The condensed data were used to describe patterns of transitional care within cases at the level of individual patients and between cases at the level of the nursing facility.

Aim 1, describe transitional care and outcomes for older adults who obtain post-acute care in nursing homes from the day of admission through discharge, was addressed using within- and between-case analysis. When all case study data have been read and manifest content analysis is complete, I explored the data for themes that describe associations between transitional care structure and process and between transitional care process and outcomes. Throughout the case, I constructed a trajectory timeline onto which I plotted units of coded transitional care process and outcomes data chronologically. I described the relationship between structure and process using thematic analysis of coded data for transitional care structure and processes, classifying them into themes. Then, I wrote narratives that described nursing home structures that
supported or impeded transitional care processes in the individual case studies. Between-case analysis of the relationships was conducted by describing commonalities in themes across cases, describing the relationship at the level of the nursing facility.

To describe the relationship between transitional care process and outcomes within each case, I categorized the identified outcomes within the eight evidence-based transitional care practices (see Chapter One) followed by written narratives that describe how transitional care tasks (number and quality of completion) related to individual patient outcomes. I added contextual detail using data collected in chart reviews and interviews about the patient and the facility, to provide explanatory detail about the relationships. Finally, between-case analysis of the relationships was conducted by describing commonalities in themes across cases, describing the relationship at the level of the nursing facility.

Aim 2 is to explore the influence of interactions, among selected older adult patients and their group of nursing home caregivers, on their ability to accomplish transitional care processes. To describe the relationship between transitional care interactions and processes within each case, I categorized coded care process data within the three groups of behaviors associated with superior information exchange, staff connections, and cognitive diversity; in addition, I wrote narratives that describe how transitional care interactions related to completion individual care processes. I added contextual detail using data collected in observations and interviews to provide explanatory detail about the relationships. Then, I described patterns of interactions
which supported or impeded transitional care processes over time in the individual case studies. Finally, between-case analysis of the relationships was conducted by describing commonalities in the relationships and patterns across cases, describing the relationship at the level of the nursing facility.
Appendix B: Overview of Data Collection

In the following tables (Table 14, Table 15 and Table 16), participants and targets for data collection are listed by week for each case study.

**Table 14 Data Collection for Case Study One**

<table>
<thead>
<tr>
<th>Date</th>
<th>Participants</th>
<th>Data Collection Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1-6</td>
<td>1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings</td>
<td>- Facility routines in meetings, unit routines, and staff routines in the facility</td>
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<td></td>
<td>2. Patient</td>
<td>- Recruitment of patient for case one</td>
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<td></td>
<td>3. LPN</td>
<td>- Facility documents that structure intake and planning protocols; also searched for transitional care and discharge planning protocols or strategies of any kind</td>
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<td>4. Other unit staff</td>
<td>- Improvisation and unit routines used in the absence of overt protocols</td>
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<td>- Care-team evolution, such as assignment of care-team members</td>
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<td></td>
<td></td>
<td>- Recruit care-team members</td>
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<td></td>
<td></td>
<td>- Initial patient interviews to assess patient needs, strengths and weaknesses</td>
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<tr>
<td></td>
<td></td>
<td>- Engagement of evasive LPN</td>
</tr>
<tr>
<td>Date</td>
<td>Participants</td>
<td>Data Collection Targets</td>
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<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
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<tr>
<td>Day 7-13</td>
<td>1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings</td>
<td>- PPS, searched for centralized planning</td>
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<td></td>
<td>2. Minimum Data Set Nurse (MDS), MDS assistant</td>
<td>- Evolution of care-team and continued recruitment</td>
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<td></td>
<td>3. Care-team members, including physician (MD), nurse practitioner (NP), LPN, occupational therapist (OT), physical therapist (PT), dietician (D), social worker (SW)</td>
<td>- Communication between disciplines to see how care was integrated</td>
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<tr>
<td></td>
<td>4. Patient</td>
<td>- Disciplinary intakes and planning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Care-team member interactions, searching for integration and LIS behaviors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Staff member and patient interactions, searching for engagement and LIS behaviors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- All professional staff interactions, searched for engagement and initial assessments and beginning patient and family teaching</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- NP leadership – watched this emerge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- LPN engagement in study; breakthrough on 6/11.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Elements of documentation system that worked</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Evidence of physician input in care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Evidence of facility structure that supports care</td>
</tr>
</tbody>
</table>

<p>| Day 14 - 20 | 1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings | - How patient focus on discharge influenced the care that was provided                  |
|             | 2. Care-team members, including MD, NP, LPN, OT, PT, D, SW                     | - Watch for patient/family teaching                                                     |
|             | 3. Added speech therapist (ST)                                                 | - Staff focus on rehabilitation.                                                       |
|             | 4. Interviewed DON and NHA                                                    | - SW actions to engage family in planning                                              |
|             | 5. Patient                                                                    | - LPN activity with Patient and family                                                 |
|             |                                                                              | - Major conflict in the family –Patient willing to compromise her health to support an alienated family member. SW aware, yet no family meeting - NP is not aware of family dynamics |
|             |                                                                              | - NP engagement with Patient and team                                                  |
|             |                                                                              | - Efforts to engage patient in Therapy - OT and PT are frustrated and Patient is not consistently participating |
|             |                                                                              | - Fragmented team and the effects of fragmentation on care processes                  |
|             |                                                                              | - Transitional care planning                                                           |
|             |                                                                              | - Patient perceptions of care, her desired outcomes, and her sense that desired outcomes were being met |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Participants</th>
<th>Data Collection Targets</th>
</tr>
</thead>
</table>
| Day 21 - 27 | 1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings 2. Care-team members, including MD, NP, LPN, OT, PT, D, SW, ST. 3. Patient | - Staff perceptions of care and their sense that outcomes were being met.  
- LIS behaviors, especially those between staff members and the patient.  
- Any sign of staff to staff teaching about transitional care needs or process monitoring to complete transitional care.  
- DON perception of transitional care process in the facility.  
- How the completion of IV antibiotics and the withdrawal of PT/OT (due to patient poor participation) influenced care and accelerated planning in care.  
- Teaching, especially meds and plans for continued care at home.  
- Integrated planning, e.g., SW engagement of family in planning.  
- LPN and NP perceptions of care.  
- Documentation as a resource in care integration.  
- Effects of fragmentation on staff and patient perceptions of transitional care process and outcomes.  
- LIS in care-team interactions, especially how LIS may compensate for lacking structure, fragmentation and missing elements of care process.  
- Stability of care-team as inpatient goals are completed, especially the support for the LPN.  
- Efforts to engage the family.  
- Aftercare arrangements and communication with Patient – inclusion of patient preferences in planning for after care.  |
| Day 28 - 33 | 1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings 2. Care-team members, including MD, NP, LPN, OT, PT, D, SW, ST. 3. Patient | - The effectiveness of the last minute push to create a transition plan and perceptions of all care-team members regarding the effectiveness of transitional care planning.  
- The interaction of reimbursable skill level and level of care decision making.  
- Patient acceptance of aftercare planning.  
- Staff member efforts to engage patient in planning.  
- Family member involvement in planning.  
- Sensemaking in last minute push to plan and implement a transitional care plan.  
- Evidence of physician involvement in planning.  |
Table 14 continued

<table>
<thead>
<tr>
<th>Date</th>
<th>Participants</th>
<th>Data Collection Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>- Documentation, such as written materials for patient, family and community providers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- SW referrals – patient inclusion in referral process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- In depth assessment of care-team and patient perceptions of LIS and patient preparedness of discharge and transition to home.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Completion of transitional care objectives identified in the review of hospital-based transitional care intervention studies</td>
</tr>
</tbody>
</table>

Table 15 Data Collection for Case Study Two

<table>
<thead>
<tr>
<th>Date</th>
<th>Participants</th>
<th>Data Collection Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1 - 6</td>
<td>1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings</td>
<td>- Facility routines in meetings, unit routines, and staff routines in the facility</td>
</tr>
<tr>
<td></td>
<td>2. Patient</td>
<td>- Recruitment of patient</td>
</tr>
<tr>
<td></td>
<td>3. Care-team members, including physician (MD), nurse practitioner (NP), LPN, occupational therapist (OT), physical therapist (PT), dietician (D), social worker (SW)</td>
<td>- Care-team evolution, such as assignment of care-team members</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Recruit care-team members</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Initial patient interviews to assess patient needs, strengths and weaknesses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Initial interviews with all care-team members to assess perceptions of patient needs and the development of plans of care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Improvisation of care-team evolution and integration of patient assessments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- LIS in care-team interactions, especially in those related to clarifying care-team membership and patient/family engagement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- facility structures which support transitional care processes</td>
</tr>
<tr>
<td>Date</td>
<td>Participants</td>
<td>Data Collection Targets</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Day 7-13   | 1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings 2. Care-team members, including NP, LPN, OT, PT, D, SW, patient wife (CG) 3. Patient | - PPS, especially the way informal leaders speak-up in the meeting and facilitate centralized planning. Also, monitored the way SW balances the needs of the individual case within her large caseload  
- Evolution of care-team – in particular, the way that geographically separate staff members collaborate, communicate and integrate planning  
- Communication between disciplines regarding patient frustrations with care and his perception of his ability to transfer and care for himself  
- Inclusion of CG preferences in the overall plan; also, efforts to educate the CG  
- Disciplinary intakes and planning  
- Care-team member interactions, searching for earliest evidence of sensemaking in patient-staff dyads and in staff member chance encounters  
- Patient and CG teaching – watching for completion of evidence-based care processes and for the influence of LIS on these care processes  
- Elements of documentation system that worked  
- Evidence of physician input in care  
- Evidence of facility structure that supports care |
| Day 14-20  | 1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings 2. Care-team members, including NP, LPN, OT, PT, D, SW, patient wife (CG) 3. Patient | - How staff managed patient demands for immediate discharge and used team processes/LIS to prevent patient insight from limiting completion of evidence-based transitional care processes  
- Patient/family teaching everywhere  
- The interaction of limit-setting interactions on inclusion of patient preferences in care  
- SW actions to engage family in planning  
- LPN activity with Patient and CG, especially opportunities for discussing aftercare plans  
- SW engagement of patient  
- the effects of rotating NP coverage on continuity of clinical care – the evolution of a “point person” or a leader in the care-team |
Table 15 continued

<table>
<thead>
<tr>
<th>Date</th>
<th>Participants</th>
<th>Data Collection Targets</th>
</tr>
</thead>
</table>
| Day 21 - 27| 1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings  
               2. Care-team members, including MD, NP, LPN, OT, PT, D, SW,  
               3. Patient | - evidence of a “contract” or an informal plan with the patient to guide steps in care –  
                                                                 development of primary goals and the patient’s awareness of these goals  
                                                                 - Transitional care planning with the patient and CG  
                                                                 - Patient perceptions of care, his desired outcomes, and his sense that desired outcomes were being met.  
                                                                 - Staff perceptions of care and their sense that outcomes were being met.  
                                                                 - Any sign of staff to staff teaching about transitional care needs or process monitoring to complete transitional care  
                                                                 - effects of fragmented planning on outcomes  
                                                                 - Teaching, especially meds and plans for continued care at home.  
                                                                 - Documentation as a resource in care integration  
                                                                 - LIS in care-team interactions, especially how LIS may compensate for lacking structure, fragmentation and missing elements of care process  
                                                                 - Aftercare arrangements and communication with Patient – inclusion of patient preferences in planning for after care  
                                                                 - The effectiveness of the effort to finalize a transition plan and perceptions of all care-team members regarding the effectiveness of transitional care planning  
                                                                 - Patient acceptance of aftercare planning  
                                                                 - Staff member effort to engage patient in planning  
                                                                 - CG involvement in planning  
                                                                 - Sensemaking in implement a transitional care plan  
                                                                 - Evidence of physician involvement  
                                                                 - Documentation, such as written materials for patient, family and community providers.  
                                                                 - SW referrals – patient inclusion in referral process  
                                                                 - In depth assessment of care-team and patient interactions  |
Table 15 continued

<table>
<thead>
<tr>
<th>Date</th>
<th>Participants</th>
<th>Data Collection Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>perceptions of LIS and patient preparedness of discharge and transition to home.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Completion of transitional care objectives identified in the review of hospital-based transitional care intervention studies</td>
<td></td>
</tr>
</tbody>
</table>

Table 16 Data Collection for Case Study Three

<table>
<thead>
<tr>
<th>Date</th>
<th>Participants</th>
<th>Data Collection Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1-6</td>
<td>1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings</td>
<td>- Facility routines in meetings, unit routines, and staff routines in the facility</td>
</tr>
<tr>
<td></td>
<td>2. Patient</td>
<td>- Recruitment of patient</td>
</tr>
<tr>
<td></td>
<td>3. Care-team members, including physician (MD), MD fellow (MD2), LPN,</td>
<td>- Care-team evolution, such as assignment of care-team members</td>
</tr>
<tr>
<td></td>
<td>occupational therapist (OT), physical therapist (PT), dietician (D), social worker (SW)</td>
<td>- Recruit care-team members</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Initial patient interviews to assess patient needs, strengths and weaknesses</td>
</tr>
<tr>
<td>Day 7-13</td>
<td>1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings</td>
<td>- Initial interviews with all care-team members to assess perceptions of patient needs and the development of plans of care</td>
</tr>
<tr>
<td></td>
<td>2. Care-team members, including MD2, LPN, OT, PT, D, SW, patient cousin (CG)</td>
<td>- Improvisation of care-team evolution and integration of patient assessments</td>
</tr>
<tr>
<td></td>
<td>3. Patient</td>
<td>- LIS in care-team interactions, especially in those related to clarifying care-team membership and patient engagement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Facility structures which support transitional care processes</td>
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<tr>
<td></td>
<td></td>
<td>- PPS, focused on the communication of nursing information among the assembled group – searched for evidence that informal leaders represented nursing concerns.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Evolution of care-team – in particular, the way that care was organized in this care-team that did not have a nurse practitioner; searched for MD2 awareness of team members</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Communication between disciplines – in particular, the role of the LPN – explored the effects of her geographical centrality in the case fostered her role as a leader in care.</td>
</tr>
<tr>
<td>Date</td>
<td>Participants</td>
<td>Data Collection Targets</td>
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<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings</td>
<td>- Observed OT/PT/SW interactions with Patient and sought to identify role-specific assessments, planning elements, and teaching objectives</td>
<td></td>
</tr>
<tr>
<td>2. Care-team members, including MD2, LPN, OT, PT, D, SW, patient cousin (CG)</td>
<td>- Disciplinary intakes and planning</td>
<td></td>
</tr>
<tr>
<td>3. Patient</td>
<td>- Care-team member interactions, searching for earliest evidence of sensemaking in patient-staff dyads and in staff member chance encounters</td>
<td></td>
</tr>
<tr>
<td>Day 14 - 20</td>
<td>- LPN and MD and MD2 role in wound care, wound teaching, collaboration with outpatient surgical nurse</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- LPN and SW communication regarding wound care and the needs for home care and SW teaching to guide wound care at home</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Evaluations and teaching to support the need for weight gain in facility and at home</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Patient and CG teaching – watching for completion of evidence-based care processes and for the influence of LIS on these care processes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Elements of documentation system that worked</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Evidence of physician input in care</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Evidence of facility structure that supports care</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- How SW and nursing worked with MD2 to create a transition plan; how the patient was included in the transition planning; how the CG was included</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Patient/family teaching - especially wound care, supports in the home, ambulation safety, needed CG involvement; searched for proactive stance toward the family CG</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- As OT/PT completed care, watched for the increased activity of SW – looking for proactive communication regarding benefits, home care duration, out of pocket expenses, clarification of roles of home care providers, schedule of outpatient appointments, needed lab follow-ups, wound management approach</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- SW actions to engage family in planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Evidence of physician involvement in planning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Patient perceptions of care, her desired</td>
<td></td>
</tr>
</tbody>
</table>

144
<table>
<thead>
<tr>
<th>Date</th>
<th>Participants</th>
<th>Data Collection Targets</th>
</tr>
</thead>
</table>
| Day 21 - 28| 1. Management and clinical leaders in daily stand-up and semi-weekly PPS meetings  
2. Care-team members, including MD2, LPN, OT, PT, D, SW, patient cousin (CG)  
3. Patient | - outcomes, and her sense that desired needs were being met.  
- Staff perceptions of care and their sense that needs were being met.  
- Effects of fragmented planning on outcomes  
- Gaps in structure which required physician orders to complete routine elements in transitional care planning  
- Patient/CG understanding of a global transitional care plan  
- Teaching, especially meds and plans for continued care at home.  
- Documentation as a resource in care integration  
- LIS in care-team interactions, especially how LIS may compensate for lacking structure, fragmentation and missing elements of care process  
- Aftercare arrangements and communication with Patient – inclusion of patient preferences in planning for after care  
- The effectiveness of the effort to finalize a transition plan and perceptions of all care-team members regarding the effectiveness of transitional care planning  
- Patient acceptance of aftercare planning  
- Staff member effort to engage patient in planning  
- CG involvement in planning  
- Sensemaking in implement a transitional care plan  
- Evidence of physician involvement  
- Documentation, such as written materials for patient, family and community providers.  
- In depth assessment of care-team and patient perceptions of LIS and patient preparedness of discharge and transition to home.  
- Completion of transitional care objectives identified in the review of hospital-based transitional care intervention studies |
Appendix C: Illustrations of Analyses of Transitional Care Trajectories

In this appendix, three illustrations of analysis procedures used in Chapters Three and Five are presented to provide show how (a) raw case data were configured as trajectories of care, (b) raw case data from multiple sources were used, (c) raw case data – from interviews, observations, and document reviews – were triangulated in analyses, and (d) patterns which described strengths, gaps, and inconsistencies in transitional emerged in the longitudinal analysis of the qualitative data. In Illustration One, the trajectory and analysis of social work involvement in discharge planning in Case Study One are presented. In Illustration Two, the trajectory and analysis of staff engagement of the patient in Case Study Two are presented. In Illustration Three, the trajectory and analysis of patient wound care teaching in Case Study Three are presented. The illustrations of transitional care trajectories display the day that data were obtained, the raw units of data, and a comment on the analysis of individual units of raw data.

Illustration One: The Trajectory of Social Work Involvement in Case Study One

Delays and incompleteness in social work involvement in transitional care were observed across case studies. Raw units of case study data, presented in Table 17 describe the trajectory of social work involvement in care over the duration of the patient stay in Case Study One and illustrate the approach used to analyze strengths, gaps and inconsistencies case studies. Findings from this trajectory analysis were used to describe gaps in discharge planning and self- management teaching in Chapter Three.
<table>
<thead>
<tr>
<th>Day</th>
<th>Source</th>
<th>Data Unit (from interview or observation)</th>
<th>Comment for Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Observe</td>
<td>I observe NP speak to SW, “Res has no POA listed. She is 75 years old with icky, icky diseases going…Getting her a POA is a service we can provide while she is here. We need to get this taken care of.” … [I observed no direct conversation about a primary contact for planning or for education during the patient stay – this did not seem to be an active issue in care at this time. I…expected a much larger conversation to determine who would teach Res all the services that were going on in the NH and ways that these services would be continued after discharge. I wondered who was aware of the finances, the follow-up plans, the transportation, the scheduling, the rationale for treatment, help with medication reconciliation, etc… care was much more focused on the here and now and that there was minimal anticipation of patient future needs – even the POA discussion tended to focus on the needs of the nursing home staff. They wanted to POA in case something happened in the nursing home.] … SW was very busy, and they did not return to the talk of Res any further.</td>
<td>In this rare encounter between SW and NP, there was no dialogue regarding outpatient care needs and transition plans – the needed POA was mentioned, but as a needed inpatient resource. The team never obtained a signed POA.</td>
</tr>
<tr>
<td>/10</td>
<td>Observe</td>
<td>SW re-introduced herself to Res and stated her role. “I make sure you get what you need so you can return home. I will coordinate your discharge.” SW continued, “What company do you use for home care at home in the past?” Res tried to remember but could not name the company; SW said she would find someone for her and help her to get supplies – they went through a few things – walker, shower chair, rails) but they did not identify anything that was needed…</td>
<td>In this relatively early SW and patient encounter, the assessment of patient needs lacks specific detail, such as the cost of care, the timing of potential services, the type of available services, and the insurance coverage. There is no discussion of family support and no effort to engage the family. The social worker makes an assurance that she will follow-up with planning –</td>
</tr>
</tbody>
</table>
Day | Source | Data Unit (from interview or observation) | Comment for Analysis  
--- | --- | --- | ---  
10 | Informal Interview with social worker | SW asked about steps at home. Res cannot use one entrance and has three steps at another. She cannot use her wheelchair at the entrance. She has to do a delicate process with her granddaughter and her walker to get in and out. SW asked about help in the house – especially when coming and going. Res replied with the global statement about granddaughter – “She provides whatever I need.” SW asked if granddaughter is always there and Res said “yes, always, she does not work…” Res said that she would like to find someone who will come to her home to help with chores. In all my time with Res, she has stated that she has her granddaughter for everything; SW did not probe at this time what Res needed from the home care person. SW did say that she could help locate a chore person, a home nurse and rehab therapy for home. She assured patient that she would take care of all of this before the time of discharge. “We will get everything ready for you,” SW said. The interview ended on that note.  
6 | Informal Interview | I asked SW what were her impressions from the visit…SW perceived that there is plenty of family support. SW plans to visit again at a later date. SW plans to assess in depth the family support. I asked her if she imagined the need to teach the family anything to get Res ready for d/c. SW was rushed. She commented that the family will need to know the home care arrangements and to settle the POA issue. She commented that they will need to have a point person but that right now she does not know who that will be.  
8 | Informal | …LPN spoke with Res about her  
148 | | SW identifies the goals to engage patient in detailed teaching and to engage family. The family is never engaged. The planning conversations would not happen until the two days of the admission.  
LPN interview suggests that family
<table>
<thead>
<tr>
<th>Day</th>
<th>Source</th>
<th>Data Unit (from interview or observation)</th>
<th>Comment for Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>/11</td>
<td>Interview with primary LPN</td>
<td>family situation and whether that had any impact – she learned that the depressed feeling was long standing - that Res had been taking the Zoloft for a while – did not say how long. LPN stated that the living situation could exacerbate the problem – “She lives with her great-great grandkids - Those are not her kids, those are not her grandkids, they are her great greats and they are living with her – that could be a problem. Those are little kids…3, 4, and 6 years old.”</td>
<td>dynamics may be a barrier for optimal transitional care – this opinion supports the need for the unscheduled family meeting.</td>
</tr>
<tr>
<td>/17</td>
<td>Informal interview with Patient</td>
<td>…I asked the patient if she had been preparing herself for returning home, if it would entail a lot. She told me that she was waiting to hear about her blood culture. She’d told her family to be ready. She said that she was going to work with the social worker about going home.</td>
<td>Patient is planning to discharge when her blood culture returns negative – she is expecting social worker support.</td>
</tr>
<tr>
<td>/18</td>
<td>Informal interview with Social worker</td>
<td>I visited in the SW office after SW’s first significant visit with Res (I had asked to observe the visit with Res but SW visited her without me.).…SW stated that Res asked about supplies that she can get for going home – SW told her that the therapists would order anything that she needs. “I would take care of that for her…I will work with her insurance to take care of supplies. We talked about home care and her preferred agency. She talked about having an RN come in – Res said that her granddaughter does a great job of assisting her…Granddaughter is the only one who helps.”</td>
<td>SW recounts her visit with Res – again there are assurances given that plans will be made, however, planning has not been started and there is still no evidence of family involvement in the high risk discharge with a patient that will be dependent of a caregiver with known, limited capacity to provide care.</td>
</tr>
</tbody>
</table>

SW stated, “Res was also very concerned about Granddaughter, what would happen to her if she did not go
**Table 17 continued**

<table>
<thead>
<tr>
<th>Day</th>
<th>Source</th>
<th>Data Unit (from interview or observation)</th>
<th>Comment for Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/24</td>
<td>Informal interview with NP</td>
<td>“This is a very hard case.” PT will d/c on Monday unless Res begins to participate. If we get the blood culture back Monday and they are negative, we will have no skill to keep her. Res wants to go home and that may be what happens on Tuesday….They [the staff] will need to have a plan to know what to do with her on Monday.</td>
<td>NP aware that d/c is pending and that planning needs to be complete.</td>
</tr>
<tr>
<td></td>
<td>Informal Interview with social worker</td>
<td>I visited with SW to learn of developments in planning for Res’ anticipated discharge home…SW said, “I don’t know, I need to find-out about her today.” SW was aware that Res would not discharge this week – SW was unaware of any family involvement in planning for Res care after discharge – even in the context of a potential discharge on Monday (4 days from now.) This strongly suggested to me that SW and LPN had not exchanged information about discharge planning (LPN was aware of a pending discharge) SW stated that she planned to see Res today but stated that she was concerned about her time and her ability to get to the</td>
<td>SW still has not made specific plans and has not engaged family members. SW is not aware of pending discharge plans.</td>
</tr>
</tbody>
</table>
Table 17 continued

<table>
<thead>
<tr>
<th>Day</th>
<th>Source</th>
<th>Data Unit (from interview or observation)</th>
<th>Comment for Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/24</td>
<td>Second informal interview with social worker this day / also observe social worker on the telephone with home health agency</td>
<td>Res on her full list of things to do. SW…seemed concerned about Res and was rather matter of fact about her schedule. I asked if a family meeting had been scheduled to prepare for the discharge – SW said no.</td>
<td>SW reports that it will be “hard” to make transition plans with family – SW informally engages a home care referral for the first time. No discussion as yet with Res about referral specifics.</td>
</tr>
</tbody>
</table>

6/24  SW approached me and…said that she had tried to see the Res. Patient was tired and not as available to talk. SW stated, “We’re going to have to pull the family together and see what they can do.” SW noted that the Granddaughter will continue to be the primary caregiver at home. She stated, “This will be somewhat hard.” [I hesitated before asking when a family meeting might be held – it felt like I was beginning to] SW did not say anything more about a family meeting. I asked what contact SW had had with the family –SW stated that she had not visited with the family members.

SW picked up the phone and contacted her colleague in a home nursing agency. The two discussed Res. SW was aware that Res was to start a new antibiotic medication that requires a blood draw once per week. She consulted her home care colleague and learned that Medicare pays home nurses to come out and provide skills such as medication management along with the blood draw – but they would not come just for the blood draw. SW and her colleague made a provisional decision for Res - home nursing with blood draws after discharge. There was no formalization (e.g., arrangements to open a case, fax information, provide Res address, etc.) - formal planning remained for a future day – even though the operating d/c date was in 4 days.
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<tr>
<td>6/24</td>
<td>Observe NP</td>
<td>I asked if SW had explained home care and benefits to Res. The answer was no. Res had accepted the plan to remain in the facility another week. NP explained to Res that SW would be back to help her plan her affairs at home and to help her understand the finances of her continued stay in the facility. NP was uncertain but suggested that SW would be able to document her care and to work with insurance to get coverage for the extra week.</td>
<td>NP is not clear regarding SW activities in the week prior to discharge</td>
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<tr>
<td>7/2</td>
<td>Observe LPN on day of discharge</td>
<td>When LPN was sure that the MD follow-up and the meds were covered, she mentioned that there would be home care for the blood draws and that there would be care from rehab therapy as well. Res told LPN that she understood the homecare arrangements - that SW had come in yesterday and told her everything - LPN and Res did not go into any detail about these arrangements.</td>
<td>LPN learns from Res that SW had visited the day before discharge to relate the discharge referrals – which suggests minimal time for education and family involvement.</td>
</tr>
<tr>
<td>7/2</td>
<td>Social Worker informal interview</td>
<td>I have been involved mostly as an advisor or for consultation…. I have helped her troubleshoot and be covered with Medicare…We talked about nausea, the cost of the medicine and her not being able to get out of bed….The medicine is very expensive….We talked about her…using Medicare to pay for the medicine. The antibiotic medicine is very debilitating. And she was concerned that it was covered by Medicare…I was there to listen to her and to help her troubleshoot about what to do. Monday (6/28), through the grapevine, I heard she was not taking the medication over the weekend, so, when I went to see her on Monday we talked about her ultimate goal to get home – her perspective</td>
<td>SW recounts her 6/28 visit with patient to begin planning for referrals. SW discussed how she listened to patient and describes how this helped her to engage patient in the plan to take the long term antibiotic treatment. There is some evidence of a more detailed assessment of patient needs and preferences – notably there is still no information provided for the patient regarding actual arrangements for care at home; also there is still no discussion of home supports and training them for the transitional care needs.</td>
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</table>
In Case Study Two, professional staff members were challenged by a patient with complex needs and strong resistance to many efforts to engage him in needed care.
activities to promote safety. Raw units of case study data, presented in Table 18, are listed chronologically to (a) describe the trajectory of staff member use of Local Interaction Strategies as they worked to engage the patient Case Study One and (b) illustrate the analysis of the influence of staff interactions on the effectiveness of transitional care in case study analyses. Findings from this trajectory analysis were used to describe the way Local Interaction Strategies promoted effective transitional care processes in Chapter 5.

**Table 18 Trajectory of Engagement of Patient in Case Study Two**

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<th>Data Unit (from interview or observation)</th>
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<tr>
<td>7/16</td>
<td>Observe OT and patient</td>
<td>OT asked, “How are you doing with rolling side to side in your bed?” She verbally taught him how to roll. They started to work on a roll together. She stated, “I love how you are bending that knee.” She encouraged patient. The patient stated, “It is true, it makes your body want to roll.” Patient made some independent efforts – got a lot of help and managed to roll form side to side.</td>
<td>OT listens to patient and uses his cues to encourage participation</td>
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<tr>
<td>7/19</td>
<td>Informal interview with patient</td>
<td>I asked Res about his therapy “Well I stood for awhile…From this bed it is too hard for me to transfer – my bed at home is fixed so I can get in and out easily. I want someone to see it. I have a very firm queen sized bed. It is 30 inches off of the floor. Beside the bed, I placed a c-clamp on the dresser and I use it o pull myself up. With the firm bed and the c-clamp I can transfer easily – here in this damnedbed, I cannot do what I can do at home. It is how I have been getting around for the last 6 months. I can really sleep in my bed – so comfortable and so</td>
<td>The patient describes his perception of his ability to transfer – his assessment that he was able to transfer at home was proven wrong on 7/22 (see below). Note in the raw data for 7/22 how PT and OT allowed patient to attempt the transfer he described in this data.</td>
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</table>
### Day 7/19

**Source:** Observe PT and OT with patient

It was very clear in the remarks of PT and OT that they felt patient had a ways to go to make bathroom transfers with a one person assist – much less to do it independently - as Res had requested. PT tried to be encouraging but Res was insisting that he could transfer independently. This seemed to draw-out a more ‘direct’ tone from PT. PT stated to patient, “Patient Name, with your weak left arm and hand, you will have to support your pivot for your very weak and recovering right knee – right now, I do not think that you are able to make this pivot alone – not even with one person helping. It will be hard with two of us.”

**Comment for Analysis:** PT listens to patient and determines that he is at risk and uses direct feedback to set limits for safety.

### Day 7/20

**Source:** Observe PT and OT with patient

OT pushed Res in the wheelchair into his room - they talked about transfers to the bed – Res wanted to show them that he could do it. PT and OT look at each other and agreed to allow him to try - they placed the safety belt on the patient and allowed him to lead them through his process. He attempted his old process (with them holding on) and it is impossible. Patient was not able to pivot the right leg so that he could turn. It was not clear how much the left leg was impeding things, but he was shy about working with the surgical right leg. At once he said, “I could do this if I was in my own electric chair! This wheelchair is too low! That is why I cannot do it!”… PT explained to Res that, in her opinion, he was not looking at the facts realistically. She told Res that he was not kicking-out his right leg when he transferred because it

**Comment for Analysis:** PT and OT listen to patient and seek is input. They heed his feedback and allow patient to demonstrate his ability and give him opportunities to learn from experience how he is limited. The patient continues to struggle to learn.
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<td>7/22</td>
<td>Informal interview with OT</td>
<td>OT stated, “I want Res to see for himself that he has limitations – it has not always worked in the past. We can see that he is gravelly at risk if he tries to do things without the right support. He is smart and hard-headed. I can see we care dealing with dignity and pride – and we need to respect that… I talked with NP yesterday or maybe the day before. Res has begun to say he’s gonna leave and NP knows him…I told NP we needed someone to come in and help us talk with him. She understood. He has so much pride. I really think that is what it is. He just cannot stand to be in the bed and not free to do what he used to be able to do.”</td>
<td>OT accepts patient feedback and respects his specific needs and preferences.</td>
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<tr>
<td>7/26</td>
<td>Observe PT and OT</td>
<td>I observed PT and Julie OT meet in the hallway and plan their visit with Res. They discussed the best way to get Patient involved in therapy and to avoid a heavy confrontation about discharge. PT said they really need to avoid talking about discharge. OT concurred and said that little gets done ‘when he goes there.’ They decided to try to avoid talking about discharge but to come with the electric chair and to work in language about getting ready to go home.</td>
<td>OT and PT use sensemaking behaviors to understand patient perceptions of care and to adapt their rehabilitation approach to his perceptions of need and purpose.</td>
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<tr>
<td>7/27</td>
<td>Informal interview with patient</td>
<td>Patient stated that he spoke with NP yesterday and agreed “to give this place another week. Then I was very upset in the afternoon and I said that I was going to leave now. I regret saying that. NP called me in the late afternoon to ask me why I was going back on my word</td>
<td>Passage contains evidence of patient engagement with the NP – which suggested that the repeated efforts to listen and to give/receive feedback were helping to engage patient in a safe plan of care.</td>
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Table 18 continued

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<td>7/29</td>
<td>Informal interview with PT</td>
<td>“We worked on his transfers - helped his focus on strength building. I think he is satisfied with planning.” She said that OT and SW arranged for a brief home visit on Friday. “We discussed the need for the knee brace which he would like to get rid of.” “I re-taught him the rationale for the knee brace – he is trying to accept it.”</td>
<td>PT explains a repeated intervention – which was to re-explain the need for safety measures (e.g., the knee brace). She commented that the repetition of her information exchange behaviors was successful.</td>
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<td>7/30</td>
<td>Informal interview with patient</td>
<td>“Both of my legs are cramping badly. I’ve asked to see an MD or NP. I’ve also asked to see SW. Unless I can get someone to override the PT, on Monday I am going to go somewhere else. Anywhere else, I am going to call my attorney. I can’t stay here until next week but after that, that’s it!</td>
<td>Patient continued to state that he does not wish to participate with PT and that he wants to go home. This type of speech emerged as a pattern – he would make ultimatums, staff would respond, he would feel better and agree to remain in therapy, he would become irritated again. Though this pattern was continuous, the patient did not leave AMA and was able to complete the therapy.</td>
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<tr>
<td>7/30</td>
<td>Informal interview with NP</td>
<td>The NP stated, “He wants to be in charge. Last week he gave me a week. Today he gave me a month. He’ll continue to want people to listen to him. I am not trying to hold him here. I am trying to get him succeed. There are resources here for him and it is just difficult to what he needs to do.” The NP continued, “I have worked with him in the clinic. He may just be an angry male. He’s had a lot of losses since the stroke. Still, I am telling you, he made some choices…I am really not sure that he is going to be able to make it back to his</td>
<td>This patient was consistently difficult to engage</td>
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<td>Day</td>
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<tr>
<td>7/30</td>
<td>Informal interview with patient</td>
<td>“I was actually considering calling a lawyer but, since some of the staff actually began listening to me – seeking my opinion about what to do – they assume that I do not know what I am talking about – some patients obviously don’t know what’s happening – some like me – do! So some of them listened and I made some plans.”</td>
<td>Evidence that LIS behaviors from staff members were successfully engaging patient in planning.</td>
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<tr>
<td>8/5</td>
<td>Exit interview with PT</td>
<td>I think overall he worked with us but he wanted to work more on his terms than on our terms so we took the tactic that we might not have taken the first day - we learned along the way to let him work through it - you know verbally telling us what he thought he could do, allowing him some freedom to do it while we were right there so we could jump in where we needed to.</td>
<td>PT describes how she built a relationship with patient which permitted information exchange and sensemaking with the patient.</td>
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**Illustration Three: The Trajectory of Wound Care Teaching in Case Study Three**

In Case Study Two, local interaction strategies among the patient and professional staff members promoted effective wound care planning for the patient’s transition to home. Raw units of case study data, presented in Table 19, are listed chronologically to describe the trajectory of patient wound care teaching in patient Case Study Three and to illustrate the analysis of (a) the approach used to analyze strengths, gaps and inconsistencies case studies and (b) the influence of staff interactions on the effectiveness of transitional care in case study analyses. Findings from this trajectory analysis were
used to describe consistent self-management teaching in Chapter Three and the way Local Interaction Strategies promoted effective transitional care processes in Chapter 5.

Table 19 Trajectory of Wound Care Teaching in Case Study Three

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<td>8/30</td>
<td>Observe dietician</td>
<td>Dietician stated to patient, “…we need you to eat more. You tell me you are not getting the supplements…I can try to find something else for you but we need you to increase your calories or I am afraid that the wound is really going to take a very long time to heal. Is there anything you would like me to add to your card so they will bring something special down from the kitchen for you?”</td>
<td>The dietician seeks information from patient, listens, gives feedback – she helps patient learn the need to eat more to help patient’s surgical wound to heal.</td>
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<tr>
<td>9/1</td>
<td>Informal interview with patient</td>
<td>“They [MD and MD2 and LPN] also talked to me about my wound. Told me I need to talk to a dietician about eating more. I really need to work on that. They said the wound looked dryer. I can’t understand all this drainage coming out. It has been draining…”</td>
<td>Patient understood that she will need to eat more to support wound healing.</td>
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<tr>
<td>9/2</td>
<td>Informal interview with patient</td>
<td>“LPN comes each day about that [the wound] and I think I could almost change the dressing myself. She has been talking to me about the wound and how she dresses it. There is so much drainage I may need to know how to change it. But my hands [holds up her arthritic fingers], it can be hard for me to grip certain things and I do not know if I can do it.”</td>
<td>She also expressed fear and uncertainty about her wound drainage – this suggested that she was still trying to understand or accept the status of her surgical wound. Patient explains that the LPN has repeatedly been teaching her about the wound care. Patient recognizes limitations that may limit her ability to change her dressing independently.</td>
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<tr>
<td>9/9</td>
<td>Observe MD, MD2 and patient</td>
<td>MD and MD2 examined patient’s wound. MD commented that the wound looks much better. She was pleased and patient did not believe it. MD stated to patient, “It takes time for a surgical wound to heal. Are you eating?” Patient stated, “I try to but it hurts when I eat too much…” MD encourages Res</td>
<td>MD and MD2 review wound healing and the need to eat more to support wound healing. MD was moving slightly too fast to engage patient. Patient has some trouble believing what MD stated.</td>
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<td>Day</td>
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<tr>
<td>9/9</td>
<td>Observe CG, OT, PT and patient</td>
<td>to eat as much as possible…she explained that the wound was healing but that it was a small set-back - only a small set back and it is improving.</td>
<td>Therapists listen to CG concern about patient pattern of eating little – when therapists suggest a home helper to prepare meals, the CG is receptive. This referral was established by OT prior to discharge.</td>
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<tr>
<td>9/13</td>
<td>Observe LPN and patient</td>
<td>The primary LPN was showing patient how the dressing is done. She took off the old dressing…the wound was closing and LPN told patient that she was able to get in less and less of the packing… The LPN walked Res through the whole process of changing the dressing. She said that next time she would see what patient could do.</td>
<td>LPN teaches patient about her dressing change and improvement in the wound</td>
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<tr>
<td>9/14</td>
<td>Exit Interview with dietician</td>
<td>“She needs a lot of the calories and protein and fluids…puts into her body right now…to fight against infection and fight to heal that wound so right now… she may eat more frequently at home, which is what I tried to get deeper into - was like her home life…I did talk to her on several occasions …about her eating habits…she didn’t give me a lot of details about it, but she did say her family is close. She did mention CG brings her favorite foods and other family members bring her what she likes.</td>
<td>The dietician described how she encouraged patient to eat and drink more to facilitate wound healing</td>
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<tr>
<td>9/16</td>
<td>Observe CG and patient</td>
<td>CG spoke with patient – “You will need someone at home to change that dressing... At home you will have to pay for much of that - you have the money - it is not going to be a problem and I will help you with</td>
<td>This passage provided evidence that the CG appreciated the need for home care to support nutrition and wound care – also that he understood the plan that was emerging.</td>
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the paperwork. Patient balked at people coming in her home, not the money. CG told her she had no choice about the nurse and the aid coming in - “It is the only way.”

The passage also showed patient’s conflict about accepting needed care and having visiting nurses and aids in her home.

LPN related that she had been teaching wound care – she also related limitations in the patient capability to dress the wound independently.

This conversation was the catalyst for the plan to begin the discharge process – MD2 and the LPN agreed that wound teaching was not going to be sufficient and that home health was needed.

The discharge material made no reference to the need for continuing dietary supplements at home – this was an oversight as the stated (though never written) plan was for the supplements to be continued to promote needed weight gain at home.

MD listens to patient request and gives feedback. He also isolates a critical learning point and verifies that patient understood.
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<tr>
<td>9/17</td>
<td>Observe LPN and patient</td>
<td>The LPN reviewed the wound care – it was very evident that LPN and Res had discussed the wound in depth before – Res verbalized that she would watch for signs and symptoms of infection and changes in the drainage.</td>
<td>LPN confirms patient understanding of wound care. She obtains verification that the patient has understood the teaching point.</td>
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</table>

follow the surgeon’s orders completely. Do you understand this point?  
Patient Yes I will follow-up with the surgeon
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Biography

Mark Pettiss Toles was born in Lubbock, Texas in October 25, 1963. He is the son of Donal and Marie Toles and was raised in the home of his maternal grandparents, Byron and Elvy Pettiss. Mark is married to Tori Toles and has one daughter, Katie Toles. Mark Toles studied English as an undergraduate at the University of Texas, Nursing at Columbia University and the University of Hawaii, and is currently a Ph.D. candidate in the Duke University School of Nursing. Prior to starting his doctoral training, Mark worked as a registered nurse, a clinical nurse specialist, and a nursing manager for 11 years. Mark is first author on two manuscripts, “Methamphetamine in Emergency Psychiatry,” which was published in 2006 in Addictive Disorders and their Treatment, and “Nutrition and the Cancer Survivor: Evidence to Guide Oncology Nursing Practice,” which was published in 2008 in Seminars in Oncology Nursing. Mark is a co-author on one manuscript, “Regulation and Mindful Resident Care in Nursing Homes,” which was published in 2010 in Qualitative Health Review. Mark has three first-authored manuscripts that are currently in review. Mark Toles was the recipient of a John A. Hartford Building Academic Geriatric Nursing Capacity Predoctoral Scholarship in 2008. His doctoral training was fully supported by the Duke University School of Nursing.