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Clarifying Model for Continuity of Care: A Concept Analysis

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# Abstract

## Aim

The aim is to clarify the use of the term *continuity* in the specific context of acute care hospitalization and discharge.

## Background

The meaning of “continuity” is often co-mingled with other concepts, specifically coordination and communication. To increase usefulness for contemporary concerns with the hospitalization-postdischarge continuum, continuity of care is examined from the specific context of acute hospitalization and discharge.

## Design

Concept analysis.

## Data Sources

Medline via Ovid, Cochrane Library, Cinahl, and Google Scholar. Search years encompassed 2001–2016.

## Review Methods

Rodgers evolutionary concept analysis method.

## Results

A total of 50 papers were included in this concept analysis. Synthesis of findings from these papers resulted in a model of continuity of care that illustrates the hierarchical and interdependent relationship between time and setting, patient-provider relationships, communication, and coordination in the context of discharge transitions.

## Conclusion

The continuity model provides a framework to assist in the design of multicomponent, interdisciplinary, integrated interventions that can then be tested for their effect on patient care practices and outcomes.

# 1 INTRODUCTION

Continuity of care has been an omnipresent concept in discussions of health-care transitions. However, clear delineation from related concepts and examination of contextual variation across health care settings is needed (Holland & Harris, **2007**). In the context of the discharge transition from hospital to home, the term *continuity* is often used synonymously or in conjunction with *coordination* and *communication*, leading to confusion of meaning and difficulty in developing measures of continuity (Health Quality Ontario, **2013**; Holland & Harris, **2007**). The impetus for this article emerged during a preliminary exploration of the concept of continuity of care in the context of hospital discharge, where it became apparent that continuity was not distinct from the terms coordination and communication. Defining and operationalizing continuity is a necessary requisite for evaluating its impact on health-care delivery and outcomes.

Improving the hospital discharge transition and postdischarge outcomes are international health-care priorities (Health Quality Ontario, **2013**; Naylor, Aiken, Kurtzman, Olds, & Hirschman, **2011**). Hospital discharge is often associated with a lack of continuity that results in fragmented care and suboptimal outcomes (Biem, Hadjistavropoulos, Morgan, Biem, & Pong, **2003**; Forster et al., **2004**). During the transition from hospital to home, discontinuity caused by changes in location, providers, and level of care (Naylor et al., **2011**) can lead to adverse events (Forster, Murff, Peterson, Gandhi, & Bates, **2003**; Moore, Wisnivesky, William & McGinn, **2003**), readmissions (Forster et al., **2004**; Institute of Medicine (IOM), **2001**), and even death (Forster et al., **2004**). From the patient's perspective, fragmented care can result in dissatisfaction, lack of preparedness for self-managing care, and conflicting advice from caregivers (Bodenheimer, **2008**; Coleman, Parry, Chalmers, & Min, **2006**). Many factors contribute to the lack of continuity of care: poor communication, incomplete transfer information (Balaban, Weissman, Samuel, & Woolhandler, **2008**; Coleman, **2003**; Kripalani et al., **2007**), limited access to care, and lack of a professional leader to ensure continuity (Coleman, **2003**; Naylor, **2003**). As patients progress through health-care experiences over time, they frequently receive care from multiple providers and organizations. By virtue of these circumstances, clearly defining continuity of care with contextual specificity has become a priority (Haggerty, Roberge, Freeman, & Beaulieu, **2013**; Tarquini, Coletta, Mazzoccoli, & Gensini, **2013**).

# 2 BACKGROUND

There are numerous conceptualizations of continuity in patient care. In the context of the hospital setting, Stifter et al. (**2015a**) considered continuity as a nurse staffing variable (frequency nurses are assigned to the same patient). Others have conceptualized continuity as consistency of provider assignment, the degree of coordination, and quality of communication (Gulliford, Naithani, & Morgan, **2006**). In addition, patients have identified continuity as a relationship, while providers believe it is coordination of activities (Soler et al., **2009**). In the general ambulatory practice setting, continuity of care has recently been conceptualized as involving the concept of time with the provider and “the right nurse” (Desborough et al., **2018**; Desborough, Banfield, Phillips, & Mills, **2017**). In the broader context of continuity of care over time across care episodes, continuity has been described as the extent to which services are connected and consistent with patient needs (Haggerty et al., **2013**). Each of these conceptualizations of continuity points to consistency of assignment and coordination of care as defining characteristics of continuity.

In the 1970s, continuity in nursing care was operationalized in the primary nursing model, by assigning a “primary” or lead nurse to oversee care over the course of hospitalization who would know the patient's needs and assure effective communication and coordination (Manthey, Ciske, Robertson, & Harris, **1970**). A lack of research connecting primary nursing to outcomes (Stifter et al., **2015b**) and cost control efforts contributed to development of team-based staffing models rather than staffing focused on the individual nurse-patient relationship (Bostrom, Tisnado, Zimmer, & Lazar, **1994**). In a systematic review (Sparbel & Anderson, **2000a**, **2000b**), no consensus definition of continuity of care was found, and few nurse staffing models and no standardization in measurement of continuity were evident.

A resurgence of interest in continuity of care emerged in the early 2000s when shifts in postdischarge services and the need for postdischarge planning became predominant concerns (Holland & Harris, **2007**). In a review of the concept of continuity across disciplines, Haggerty et al. (**2003**) identified 3 types of continuity: management continuity (consistent approach that responds to changing needs), relational continuity (provider-patient relationship), and informational continuity (information transfer and use of past events for decision-making). Numerous authors have since used this framework (Biem et al., **2003**; Hadjistavropoulous, Biem, Sharpe, Bourgault-Fagnou, & Janzen, **2008**; Soler et al., **2009**; van Servellen, Fongwa, & D'Errico, **2006**; van Walraven, Oake, Jennings, & Forster, **2010a**; Waibel, Henao, Aller, Vargas, & Vasquez, **2011**).

Holland and Harris (**2007**) attempted to further clarify the meaning of continuity in relation to the terms “transitional care,” “discharge planning,” and “coordination of care” through examination of white papers and recent literature reviews. The main attributes that differentiate continuity from the other related concepts were a focus on the patient and a temporal nature. Throughout this historical examination of the concept of continuity, it became clear that the descriptions of continuity, communication, and coordination are co-mingled and often grouped together. To increase usefulness for contemporary concerns with the hospitalization-postdischarge continuum, the aim of this concept analysis was to clarify the use of the terms *continuity*, *coordination*, and *communication* in the specific context of acute care hospitalization and discharge, with synthesis of a visual model to display distinctiveness and interrelatedness.

# 3 METHODS

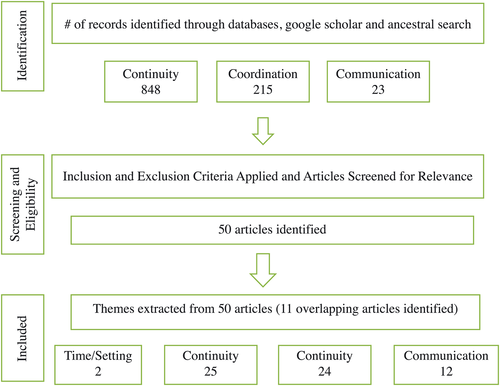
## 3.1 Design

The concept analysis was conducted using Rodgers' evolutionary approach (Rodgers, **2000**). Rodgers' approach is an inductive process of exploring the concept through its common use to reveal defining attributes. Clarification of concepts through the analysis of common uses is an important step in the process of developing concept descriptions and definitions (Rodgers, **2000**, p. 80). The resulting concept descriptions then provide a structured classification for testing for contemporary relevance. Consistent with Rodger's evolutionary approach, following the initial historical review of the concept of continuity and the identification of the lack of conceptual differentiation, the literature exploration and analysis expanded to include sources on continuity, coordination, and communication related to hospital discharge.

The concept analysis followed the 6 steps of the evolutionary approach: (1) Identify the concept of interest and associated or surrogate terms; (2) identify and select the appropriate realm (sample and setting) for data collection; (3) collect data relevant to identifying the attributes of the concept and the contextual basis; (4) analyse data regarding the attributes and interdisciplinary, sociocultural, and temporal contexts as appropriate; (5) identify an exemplar; and (6) identify implications, hypotheses, and future development opportunities (Rodgers, **2000**).

## 3.2 Search Methods

The literature search and selection strategy (Figure **1**) reflected the need for clarification of the term continuity with communication and coordination as used in the discharge transition process. The search terms included “continuity of care,” “coordination,” “coordination of care,” “communication,” “relational continuity,” “informational continuity,” and “management continuity,” “transitional care,” and “coordination of care.” The following databases were used: MEDLINE via Ovid, Cochrane Library, and CINAHL. An additional search was done using GOOGLE Scholar, limiting to peer-reviewed, professional journal articles. The inclusion criteria included published in English during the last 15 years (2001–2016), adult and paediatric population, discharged from hospital to home, or review articles capturing the role of continuity. The exclusion criteria include duplicate articles, non-English sources, articles from the disciplines of obstetrics and psychology where the context of hospitalization and discharge is different than for acute medical care. Further relevant articles were identified by ancestral (hand) searching of the reference lists of retained studies.

[](https://onlinelibrary.wiley.com/cms/asset/55ecaf15-4c1b-46cc-be54-532ee4e64fdd/ijn12704-fig-0001-m.jpg)

**Figure 1** Flow chart of search strategy

## 3.3 Search Outcome

Initial results yielded 848 articles for continuity, 215 for coordination, and 23 for communication. After applying inclusion and exclusion criteria, 50 articles with relevant content were identified for inclusion in the analysis (Table **1**).

**Table 1.**List of included articles by key concepts

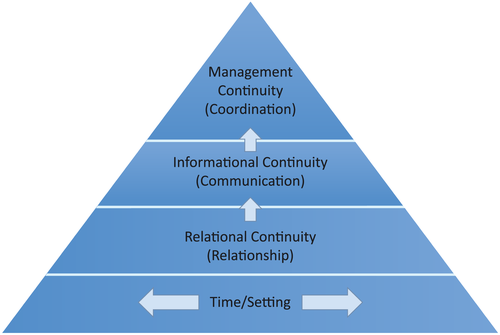
|  |  |  |
| --- | --- | --- |
| **Concept** | **Author and Date** | **Type of Source** |
| Continuity | Agency for Healthcare Research and Quality (AHRQ) (2013) | Website |
|  | Biem et al. (2003) | Case study |
|  | Bostrom et al. (1994) | Correlational, nonexperimental |
|  | Burge et al. (2011) | Instrument comparison |
|  | Coleman et al. (2006) | Randomized control trial |
|  | Coleman et al. (2004) | Quasi-experimental |
|  | Curley (2007) | Quality improvement |
|  | Curley and Hickey (2006) | Presentation of a model |
|  | Haggerty et al. (2013) | Qualitative |
|  | Haggerty et al. (2003) | Integrative review |
|  | Kelley et al. (2013) | Descriptive qualitative study |
|  | Naylor et al. (2011) | Systematic review of the literature |
|  | Naylor et al. (2013) | Prospective (cohort) |
|  | Naylor et al. (2004) | Randomized controlled trial |
|  | Pandhi and Saultz (2006) | Integrative literature review |
|  | Siow et al. (2013) | Secondary analysis of existing data |
|  | Snow et al. (2009) | Consensus of American College of Physicians |
|  | Stifter, Yao, Lodhi, et al. (2015a) | Presentation of a conceptual model |
|  | Stifter, Yao, Lopez, et al. (2015b) | Secondary analysis of data |
|  | Uijen et al. (2012) | Historical overview of a concept |
|  | Uijen et al. (2010) | Discussion paper |
|  | van Walraven, Oake, et al. (2010a) | Systematic review |
|  | Waibel et al. (2011) | Descriptive, qualitative meta-synthesis |
|  | Yakusheva et al. (2016) | Retrospective longitudinal analysis |
|  | Zolnierek (2014) | Integrative review of the literature |
| Communication | Agency for Healthcare Research and Quality (AHRQ) (2013) | Website |
|  | Balaban et al. (2008) | Randomized controlled study |
|  | Hadjistavropoulous et al. (2008) | Testing psychometric properties of an instrument |
|  | Kripalani et al. (2007) | Systematic review of the literature |
|  | National Quality Forum (2010) | Consensus report |
|  | National Quality Forum (2014) | Technical report |
|  | Radwin et al. (2015) | Description of theoretical framework |
|  | Roughead et al. (2011) | Secondary analysis of claims data |
|  | Snow et al. (2009) | Consensus of American College of Physicians |
|  | Soler et al. (2009) | Longitudinal, prospective, and observational |
|  | van Walraven, Taljaard, et al. (2010b) | Prospective cohort study |
|  | Waibel et al. (2011) | Descriptive, qualitative meta-synthesis |
| Coordination | Biem et al. (2003) | Case study |
|  | Bodenheimer (2008) | Health policy report |
|  | Cawthon et al. (2012) | Follow-up survey to original RCT |
|  | Coleman (2016) | Program website |
|  | Coleman et al., 2004 | Quasi-experimental |
|  | Dyrstad et al. (2015) | Qualitative-participant observational design |
|  | Efraimsson et al. (2004) | Qualitative |
|  | Fitzgerald et al. (2011) | Qualitative constructivist Design |
|  | Gardner et al. (2014) | Quasi-experimental cohort |
|  | Graumlich et al. (2008) | Instrument psychometric testing |
|  | Hachem et al. (2014) | Retrospective cross-sectional |
|  | Harrison et al. (2012) | Cross-sectional postal survey |
|  | Hirschman et al. (2015) | Summary of evidence for a program |
|  | Holland and Harris (2007) | Review of use of terms |
|  | Jack et al. (2009) | Randomized controlled trial |
|  | Naylor et al. (2013) | Prospective (cohort) |
|  | Naylor et al. (2004) | Randomized controlled trial |
|  | National Quality Forum (2010) | Consensus report |
|  | National Quality Forum (2015) | Executive summary |
|  | Radwin et al. (2015) | Description of theoretical framework |
|  | Reid et al. (2002) | Canadian health series report |
|  | Uijen et al. (2012) | Historical overview of a concept |
|  | Waibel et al. (2011) | Descriptive, qualitative meta-synthesis |
|  | Weiss et al. (2015) | Presentation of a model |
| Time/setting | Coleman et al. (2006) | Program website |
|  | Naylor et al. (2011) | Systematic review of the literature |

## 3.4 Data Analysis and Synthesis

Each article was read once by the first author to understand the general tone and then read at least one more time with emphasis on specific key words and phrases describing attributes and contextual variations. These key words and phrases were documented and clustered together. Multiple iterative sessions of analysis followed; words and phrases were tabulated and clustered within and across the concepts of continuity, communication, and coordination to identify commonalities and uniqueness. The process ended in the development of 4 themes that described the attributes of continuity of care related to hospital discharge. A visual model was developed for visualization of the relationships among the attributes.

# 4 FINDINGS

The results of the analysis revealed an overlapping and hierarchical relationship among the 3 dimensions of continuity: patient-provider relationship, communication, coordination. These dimensions relate to the 3 types of continuity identified by Haggerty et al. (**2003**) (relational continuity, informational continuity, and management continuity). In addition, the need for continuity only exists in the presence of changes in time and setting and is therefore foundational to the 3 dimensions of continuity. The relational continuity of the patient-provider relationship creates the necessity for communication of information across time, settings, and providers. Further, the patient-provider relationship and the communication to exchange information (informational continuity) lead to the ability to coordinate by linking and sequencing care (management continuity). The dimensions of continuity were synthesized into a conceptual model; the pyramid form demonstrates that each component is foundational to the next in the hierarchy (Figure **2**).

[](https://onlinelibrary.wiley.com/cms/asset/48f9f4fd-317e-4b02-b8fb-8dd6bf8adfd1/ijn12704-fig-0002-m.jpg)

**Figure 2** The continuity model

## 4.1 Time and setting

“Time and setting” refers to the connectedness across time and setting in patient-provider relationships, communication, and coordination. Over time, a patient may visit multiple providers and receive care in several locations (eg, hospital, home health, and clinics), relying on communication of updated information between providers for optimal care and coordination to link care services in the best and timely sequence. Patients who experience care across time and settings are vulnerable to fragmented and omitted care in the absence of consistent professional support for optimal communication and coordination (Coleman et al., **2006**; Naylor et al., **2011**). These vulnerable periods provide unique opportunities for developing and testing interventions in varying settings over different durations to enhance levels of continuity of care.

## 4.2 Patient-provider relationship (relational continuity)

Continuity requires that care is connected over time and place through a patient-engaging relationship with providers (Naylor et al., **2004**; Snow et al., **2009**; Waibel et al., **2011**). Consistent relationships between patients and providers afford the opportunity for timely and complete information transfer. Continuity in the patient-provider relationship is foundational to communication (informational continuity) and coordination (management continuity). This relationship can occur with the same provider over time and/or across settings. Embedded in the patient-provider relationship is engagement, an attribute essential to both communication and coordination. Engaging the patient and family promotes a safe and effective discharge transition (AHRQ, **2013**). Even if the provider is consistent, a high, quality patient-provider relationship will have difficulty developing if the patient and/or family are not actively involved.

Relational continuity transpires in the context of a relationship with a patient. This therapeutic relationship must be patient-centred and driven by the needs of the patient. Curley (**2007**) identified the contribution of nursing to continuity of care as an increased awareness, understanding, and competence for patients, families, and nurses accomplished through a reciprocal knowing that develops by spending time together. In the reality of the practice environment, the process of patients and providers coming to know each other, which requires time, availability, sustained contact, and continuity, is often not supported or prioritized (Zolnierek, **2014**).

The importance of the patient-provider relationship, specifically the nurse-patient relationship, was identified in a meta-synthesis of qualitative studies examining continuity of care. The results suggested that patients emphasized the importance of experiencing a continuing relationship with the same person and that assignment of the same person fosters relational continuity (Waibel et al., **2011**). The comfort provided by ongoing relationships with nurses was found to influence decision-making, appointment attendance, discussion of sensitive issues, and adherence to discharge plans, patient knowledge development (Pandhi & Saultz, **2006**), and an accumulation of provider knowledge centred on the patient's unique needs (Burge et al., **2011**). Nurses identified knowing the patient both clinically and personally as essential to providing care for the patient as a unique person with individual needs (Kelley, Docherty, & Brandon, **2013**).

Patient-centred care with consistent, engaged relationships between providers and patients is consistently listed as a key attribute of relational continuity (Haggerty et al., **2013**; Snow et al., **2009**; Waibel et al., **2011**). Patient-centred refers to individualized, patient-defined care developed around patient preferences (Naylor et al., **2013**; Uijen, Schers, Schellevis, & van den Bosh, **2012**; Uijen, Schers, & van Weel, **2010**). Patients place value on providers knowing what has happened throughout the continuum of care, establishing a mutually agreed upon care plan, recognizing the detail of their individual situations, and thinking forward to future needs (Haggerty et al., **2003**; van Walraven, Oake, et al., **2010a**).

The patient-provider relationship is an essential link across settings. Continuity can occur in situations that involve single or multiple providers (Coleman et al., **2004**; Coleman et al., **2006**), but fundamental to continuity is an element of consistency in personnel as well as communication and coordination among these personnel (Biem et al., **2003**; Naylor et al., **2011**; Siow, Wypij, & Berry, **2013**; Waibel et al., **2011**). Successful health system design to promote continuity of care assumes that there is a care provider in every setting that has a relationship with and knows the patient as an individual (Uijen et al., **2012**; van Walraven, Oake, et al., **2010a**). A consistent relationship allows the provider to make the patient “known” to other providers in connecting care within and across practice settings.

Continuity in nursing assignment is rarely studied; in the acute care nursing literature, there are only 5 studies focusing on nursing continuity and its effect on patient outcomes (Bostrom et al., **1994**; Curley & Hickey, **2006**; Siow et al., **2013**; Stifter, Yao, Lodhi, et al., **2015a**; Yakusheva, Costa, & Weiss, **2016**). When measuring continuity as constancy (consecutive care days with the same RN) and consistency (number of shifts with the same nurse), it was found that, while patients were rarely cared for by the same nurse, continuity was related to several aspects of patient satisfaction, including nursing skills, compassion, patient involvement in care, instruction, and promptness (Bostrom et al., **1994**). Using the Continuity of Care Index (amount of continuity expressed by dividing the number of different nurses caring for a patient by the number of nursing shifts during a hospitalization), greater continuity contributed to increased mutual knowledge between patients, families, and nurses (Curley & Hickey, **2006**). Patients with greater disease burden were more likely to receive increased nurse continuity, but nurse continuity was not associated with a significant reduction in adverse events or ICU acquired infections (Siow et al., **2013**).

Using the percent of consecutive days cared for by the same RNs over the care episode as a continuity index, continuity was generally low on all study units and no significant association with pressure ulcers was found (Stifter, Yao, Lodhi, et al., **2015a**). However, these studies may have been biased toward an underestimate of the role of continuity for patient outcomes because patients with a longer length of stay have a better chance of being cared for by the same nurses and are at greater risk for poorer outcomes (Yakusheva et al., **2016**). In a study design addressing these biases, discontinuity, defined as assignment of the patient to a nurse with no prior assignment to the same patient, was high in acute care nursing assignments and negatively impacted the patient's clinical condition, measured using a composite clinical condition index (Yakusheva et al., **2016**). Inconsistent definition and measurement of continuity in the nurse-patient relationship has produced limited evidence to date linking nurse relational continuity to patient outcomes (Stifter, Yao, Lopez, et al., **2015b**).

## 4.3 Communication (informational continuity)

The patient-provider relationship is foundational to the exchange of information. Communication is the sharing of information relevant to patient care. It encompasses communication between patients/families and providers, as well as between providers, and considers the relevance of a patients' past, present situation, and plans for the future (NQF, **2014**; Radwin, Castonguay, Keenan, & Hermann, **2015**; Soler et al., **2009**). Sharing of information has been described as a necessary component of continuity and a requisite activity of coordination (National Quality Forum [NQF], **2010**); lack of communication between providers and patients and families results in a lack of continuity in care (Kripalani et al., **2007**). The National Quality Forum has identified preferred practices for information transfer related to the discharge transition (NQF, **2010**) and the Agency for Quality and Healthcare Research has developed an IDEAL (Include, Discuss, Educate, Assess, Listen) discharge plan that promotes effective communication during the discharge planning process (AHRQ, **2013**).

To achieve informational continuity of care, there must be timely (Kripalani et al., **2007**; Roughead, Kalisch, Ramsay, Ryan, & Gilbert, **2011**; Snow et al., **2009**), complete, and accurate (Balaban et al., **2008**; Kripalani et al., **2007**) transfer of discharge summaries or information among all providers and settings (Balaban et al., **2008**; Kripalani et al., **2007**; Waibel et al., **2011**). This transfer of information allows care providers to make care decisions based on an accurate picture and timeline of past events (Hadjistavropoulous et al., **2008**; van Walraven et al., **2010b**; Waibel et al., **2011**). Communication is the link between the patient-provider relationship and coordination of patient care.

## 4.4 Coordination (management continuity)

Coordination is fundamental to the provision of high quality health care. Poorly coordinated care can result in errors, readmissions, and avoidable medical visits (NQF, **2015**). As the number of health-care professionals and settings involved in the care of a patient increases, the coordination of care becomes more difficult, and at the same time more necessary in order to avoid duplication and confusion (Bodenheimer, **2008**).

Historically, coordination has been generally understood, but more than 40 definitions have been identified by numerous stakeholder groups (NQF, **2010**, **2015**). Coordination has been described as care integration through the linking, planning, and sequencing of care (Holland & Harris, **2007**; Reid, Haggerty, & McKendry, **2002**) and the “deliberate synchronization of activities and information to improve health outcomes by ensuring that care recipients' and families' needs and preferences for health care and community services are met over time” (NQF, **2015**). Discharge coordination, an exemplar of care coordination, involves “implementation of actions targeted to smoothing the transition from hospital and diminishing problems after discharge through arranging, linking, and/or sequencing transition support services across providers and care delivery systems” (Weiss et al., **2015**, p. 609). Coordinating actions by the care team are related to managing the components of care aligned to the patient's needs over time and creating reliable communication mechanisms to promote continuity.

The attributes of coordination overlap with those of patient-provider relationship and communication (Radwin et al., **2015**). Coordination involves engagement and empowerment of the patient and family in order to ensure effective care coordination (Dyrstad, Laugaland, & Storm, **2015**; Fitzgerald, Bauer, Koch, & King, **2011**; Waibel et al., **2011**). Patient contributions must be considered so patients feel in control and not pressured to follow a plan they did not develop (Efraimsson, Sandman, Hyden, & Rasmussen, **2004**; Graumlich, Novotny, & Aldag, **2008**). Coordinated care requires a foundation of patient-centred care, individualized and planned based on patient preference and expectations (Dyrstad et al., **2015**; Hachem, Canar, Fullman, Gallan, & Hohmann, **2014**). The discharge plan must be developed and negotiated with collaborative solutions developed by health-care providers, patients, and families (Efraimsson et al., **2004**; Hirschman, Shaid, McCauley, Pauly, & Naylor, **2015**). For example, patients and caregivers are integral in the development of a contingency plan with their providers for worsening symptoms (Gardner et al., **2014**; Jack et al., **2009**).

Communication, built on the patient-provider relationship, is also a necessary prerequisite for coordinated care. If a relationship is not developed and communication is poor and inaccurate, it leads to poorly coordinated care (NQF, **2010**). To effectively coordinate care, communication in the form of open-ended dialogue among the health-care team, which includes patient and family, supports the development of a shared plan of care (NQF, **2010**).

Coordinated care must involve the appropriate resources (Coleman, **2016**; Harrison et al., **2012**), include continued and ongoing support (Dyrstad et al., **2015**), and incorporate multiple perspectives (physician, nurses, patient, caregiver, etc.) (Cawthon et al., **2012**; Naylor et al., **2013**) to effectively meet the needs of patients. Coordination fosters collaboration in working to develop a common goal between providers and patients (Biem et al., **2003**; Coleman et al., **2004**) and between providers themselves (Coleman et al., **2004**; Naylor et al., **2004**; Uijen et al., **2012**).

# 5 DISCUSSION

The concept of continuity has evolved as postdischarge planning services have become primary initiatives. The continuity model (Figure **2**) findings extend the work of prior authors by structuring a hierarchical model of continuity that identifies changes in time and setting as a definitional requisite, patient-provider relationship as foundational to communication, and both as necessary for effective coordination. Continuity of care for discharge transitions includes all 3 types of continuity as described by Haggerty et al. (**2003**) but linked together hierarchically. Continuity only occurs when all dimensions are aligned and integrated; deficiencies and poor outcomes occur when all components are not aligned.

In the specific exemplar situation of hospital to home transitions, nurses take on roles in planning, coordinating, and teaching in preparation for discharge (Weiss et al., **2015**) and in follow-up after discharge (Naylor et al., **2004**) that require the relationship, communication, and coordination dimensions of the continuity model. The function of the nurse in relation to continuity of transitional care is to act as a leader, advocate, and coach (Coleman et al., **2006**; Jack et al., **2009**; Naylor et al., **2011**) in order to make connections with providers and services across the times and settings of the health-care experience of a patient. The identification of the characteristics of continuity as patient-provider relationships, communication, and coordination highlights specific areas of patient care, each with different but complementary strategies for targeted nursing interventions.

This new hierarchical conceptualization of continuity has important implications for the design of nurse continuity in health-care systems. Assurance that all components of the model are in place should increase the likelihood of cohesive care and impact the plan of care, patient safety, readmission, and satisfaction. For example, continuity of care in inpatient acute care nurse staffing assignments needs to be paired with communication of information between and across shifts and with coordination of discharge preparation tasks to fully prepare the patient for discharge. Continuity from hospital to home or to other levels of care is maximized when there is planning for provider continuity, information exchange, and seamless coordination of services in the transitional period. Quality measurement and research related to continuity should include all key attributes to adequately evaluate its impact on outcomes during and after hospitalization.

## 5.1 Limitations

This concept analysis was limited to the context of discharge following hospitalization for acute care. Continuity is a concern that occurs across the care continuum and other attributes of continuity might emerge in searches of other contexts, such as obstetrical care, psychiatric/mental health settings, or ambulatory nursing practice (Desborough et al., **2016**). Linking the terms patient-provider relationship, communication, and coordination to Haggerty's description of continuity may have obscured the expression of more subtle aspects of continuity. All relevant research and nonresearch-based articles meeting literature search criteria were included in the review. Reviews using other methods, such as systematic reviews, may include a more restricted set of articles based on quality criteria and result in different syntheses of findings.

# 6 CONCLUSION

Continuity of care is an important process of care to achieve desired care transition outcomes specifically related to the hospital/postdischarge continuum. This concept analysis clarifies the use of the term continuity in relation to other commonly and jointly used terms in the discharge transition, specifically communication and coordination. The continuity model provides an organizing framework to clearly delineate the hierarchical and interdependent relationship of the 3 components of continuity of care (patient-provider relationship, communication, and coordination) in the context of the hospital discharge transition. The model provides a framework for the design of multicomponent, interdisciplinary interventions to prevent fragmented care. Each component can be mobilized to contribute to continuity of care and can be measured and evaluated for its effect on patient care practices and outcomes.

# AUTHORSHIP STATEMENT

SJB conceived the topic, conducted the literature review, performed the syntheses, and developed the model in addition to drafting the article, revising it, and handling final approval. MEW assisted in the literature review and syntheses as well as critically revising the article for important content, and issuing final approval of the version to be published. All authors approved the final version of the manuscript for submission.

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# DECLARATION OF CONFLICTING INTERESTS

The authors declare no conflict of interest.

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