

A Concept Analysis of Continuity of Care in Nursing

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Abstract: Purpose: This paper is a report about the concept analysis of continuity of care, to get further understanding of continuity of care. Methods: The Walker and Avant concept analysis approach was applied in this paper. Results: The three attributes include: seamless transfer, flexible reaction and effective interaction. The antecedents were changed needs and patient centred care. In addition, the continuity of care had a significant effect on patients' outcome, satisfaction and costs. Conclusions: This analysis provides nurses an understanding about continuity of care in both patient's and care provider's perspective. Continuity of care is a tailored services provided by care givers, which is an essential element of healthcare system.

Key words: continuity of care, concept analysis.

1. Introduction

Continuity of care is recommended as an essential element of general healthcare system [1]. It is conceptualized in many different ways by health and social care professionals and individuals across communities and population. Although it is a highlight component in mental healthcare [2, 3], community healthcare [4, 5], chronic diseases care [6, 7] and elder patients' care [8], continuity of care is still not clearly defined in healthcare system [1]. A concept analysis of continuity of care can establish essential components and provide guidance to both researching and clinical practice.

2. Methods

Walker and Avant suggested analyzing a concept through selecting a concept, determining the purpose, identifying all uses, determining the attributes, constructing a model case and contrary case, identifying antecedents, consequences and empirical referents. And also, embedding the concept in a nursing theory can provide a more basic and deeper understanding of the attributes of the concept.

3. Discussion

3.1 Definitions of Continuity of Care

In 2005, the AAFP (American Academy of Family Physician) delimited continuity of care as "the process by which the patient and the physician are co-operatively involved in on-going healthcare management towards the goal of high quality, cost-effective medical care" [9]. Continuous caring relationship and seamless service are the two mainstream perspectives.

3.1.1 Dictionary Definitions of Continuity of Care

There is no definition about "continuity of care" in dictionary as one term, but "continuity" and "care" can be separately found.

3.1.2 Literature Definitions of Continuity

For patients, continuity of care is safe and confident experience rather than seamlessness [10]. In this perspective, the stress is about the on-going relationship between the professional and patients. However, the continuity of interpersonal care is

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challenging to sustain. General nurses are progressively organized into multi-discipline practices. Thus interpersonal continuity cannot serve the environment of coordination.

As patients' health care should be patient-centred and the needs cannot provide by a single professional, the multidimensional view of continuity of care should consist of the perspective of the patient and provider [6]. Hennen (1975) first described the concept as having four dimensions: chronologic, informational. geographic, and interpersonal. Bachrach (1981) further shaped seven dimensions of continuity and replaced chronological continuity with longitudinal continuity. Longitudinal continuity was described as the way that individual connects with healthcare services, or experiences of care, and consolidated together into a course of treatment. Flexibility was defined as response of patients' changing needs over time. Relational continuity expressed the extent to which the patients' connection is with nurses. Freeman et al. (2001) defined it in six dimensions after being influenced by these concepts: experienced continuity, flexible continuity. informational continuity, longitudinal continuity, relational or personal continuity, cross-boundary and team continuity [11]. Inspired by the Canadian health research foundation. these dimensions were summarised to three distinct dimensions: relational continuity; informational continuity and management continuity [12].

The definition of continuity was focused on information allocation, organisation between various department, and the association between hospital and community [13].

3.2 Defining Attributes

The defining attributes of continuity of care are seamless transfer, flexible reaction and effective interaction.

The first attribute is seamless transfer including comprehensive information and consistent cooperation.

Informational continuity was identified as excellent information transfers following the patient [14], but the identification ignores the relationship information and cooperation. In vertically integrated system of care, continuity of care was identified as an uninterrupted process and movement of care providing among the various elements in healthcare system [6]. The definition refers to adequate communication, integrated healthcare, coordination and information sharing between different care providers [1]. Comprehensive information contained the information related to the setting, staff availability, formal procedures, treatment plan, medical history and patient information [15]. Consistent cooperation is identified as effective communication between nurses, services and patients, providing integrated service through consistent management [10].

The second attribute is flexible reaction, it is identified as the ability for patients to get appropriate service when required [16], and the ability for professionals to respond the changing needs and situation over time [14], to provide a tailored service and achieve the shared goals. It is identified as a continuous caring relationship [1]. It was first conceived as the extent to which services are received as part of a corresponding and continuous succession of events fulfilled with the healthcare need of patients [17]. The definition refers to the continuous caring relationship between patient and professionals. The relationship is providing healthcare to patients, which is essential in the delivery of care, and the illness is managed by communication and an integrated tailored care [15], and it is expanded to include the interdisciplinary and knowledge about the patients and their situation [18].

Effective interaction is essential in creating a comfortable environment, trust and represents an indispensable part of on-going care planning process, it is described as inspire confidence and involves patients in decisions about the care process, from single passage to final negotiation [15]. It is described

as the establishment and maintenance of the therapeutic and guiding relationship between professionals and patients [1, 18].

Continuity of care is defined as a healthcare model guiding how to provide tailored service through seamless transfer, flexible reaction and effective interaction.

3.3 Model Case and Contrary Case

3.3.1 Model Case

Anna used to go to hospital every week, they would check everything and inform her appointment date for the next time, but she moved to a community now. The hospital delivered the therapy, medication, personal information and the records to the community; Anna had received an e-mail from hospital about the change, and an e-mail from her new doctor Dr. C, about the introduction about himself, the appointment and treatment for the next time (seamless transfer). After Anne read the e-mail, she found it is one time she could not make it, she phoned Dr. C to make a suitable change. When Anne telephoned the community she was run out of pills and felt a little uncomfortable, the community gave some advice on the phone if it was not serious but they will get an ambulance if it is serious, and they told Anne that she can get the pills anytime she want (flexible coping). Anne asked a lot to the doctor and trusted him. The doctor listened and explained to Anne, and provided personally tailored advice, he knew a lot about Anne, not only the medical history and treatment plans, but also the family of Anne (effective interaction).

This case fully portrays all the defining attributes of continuity of care, the hospital makes a cooperation with the community when Anne changes the unit, the doctor transfers all of the information to the community to make sure the community has comprehensive information, the community makes flexible response to Anne when needs change and unpredicted situations occur, which will improve the trust between the patients and care providers. The doctor knows a lot about Anne, and is willing to listen and explain to her, which achieves the trust from Anne, and constructs a continuous relationship with Anne, it is important in providing continuous care.

3.3.2 Contrary Case

Anna moved from a hospital to a community, she was asked to supplement some general information about herself, but she was unfamiliar with the community. She wanted to make an appointment and phoned the community, they told her there was an appointment arranged for her. Anne wanted to change the time but got an answer three days later and had to wait for three months, which made her angry. When talking to the doctor, she told a little because she did not know the doctor very well. The doctor was busy and always rushed out, he provided the treatment plan but without explanation. "The doctor will forget me when I come next time, he will ask the same question and tell me everything is well, the only advice is do not be worried." Anne said.

This case reflects an absence of the attributes of continuity of care, Anne moved to the community, however, they did not know each other very well, the community had not got the comprehensive information and they did not contact Anne after arranging an appointment for her (failure of seamless transfer). When needs and situations changed, the community responded slowly and Anne is not able to achieve the service (failure of flexible coping). Anne and the doctor know little about each other and Anne mistrusts him, the doctor never listens and explains, and cannot provide tailored advice (failure uninterrupted interactivity).

3.4 Antecedents and Consequences

The first antecedent is the changed needs. Once the personal needs changed, the professionals may be faced with the situation of the patients' unpredictable needs. They may feel fear, anxiety, and seek for help. It is a chance to improve the ability coping with challenging information and the relationship between patients and professionals [19]. The results may vary depending on patient's engagement, the degree of their receptiveness to analytical information and to clinicians' paternalist method [20]. During the changed situation, the necessity to make sure the continuity of care is reasonable by the changed needs and goals. These changes occur when patients have to cope with unexpected situations, emergencies [19].

The second antecedent is patient-centred care. Patient-centred care is defined variably, but broadly describes the shift away from a paternalistic delivery of healthcare where the patients' needs are assumed, to planning and delivering services in a way that recognizes patients are experts of their own health [21]. Patient-centred care is responsive to the increasing focus on biomedical processes at the expense of the patient experience. While it has been interpreted to mean increasing patient choice, fulfilling patient wants and endeavouring to involve patients in decision making, being patient-centred is about meeting patients' needs by taking the most suitable way to communicate with each patient [22].

The consequence of continuity of care is complex in different situations including outcome, satisfaction, and cost.

It had shown clear benefits by providing patients with individualised information on their care and guiding them to engage in, it is demonstrated that it can significantly improve the outcome. Continuity of care can led to decreased numbers and severity of hospitalizations symptoms, and emergency department use [23]. It had also been demonstrated that it is effective in getting a better blood pressure control for patients with hypertension and glucose control in diabetes [7]. Some studies have shown a significant improvement in patient and staff satisfaction [24], and can enhance the assurance in the quality of care received [25], it can also help staff gain a better understanding of the patient-centred care and to develop trusting relationships, the ability consolidate skills and knowledge, and also they felt

well prepared to work [26]. Besides, providing seamless care throughout the illness progression would guarantee a primary and on-going application of care service, facilitate timely diagnosis and treatment of symptoms, and also a study found that increased continuity of care can help decrease total annual health care expenditures [27].

3.5 Empirical Referents

A number of researchers have developed and operationalized measures for continuity of care. This includes general and disease-specific measurements, the general measurements can reflect continuity of care for all patients [28], but does not adequately reflect the characteristics for specific diseases, while disease-specific tools are highly sensitive and can reflect the continuity of care in patients with the disease, but narrow scope of application [29]. As this is a concept analysis of general continuity of care, these disease-specific tools are not considered.

General measurements include CQI-CC (Consumer Quality Index Continuum of Care), CCI (Care Continuity Instrument), NCQ (Nijmegen Continuity Questionnaire). CQI-CC is based on the qualitative research on continuity of the care, the purpose is to detect the availability of adequate continuity of care from the patient's point of view [30], the Cronbach's alpha coefficients were between 0.51 and 0.93 among the 4 subscales [31]. CCI is measured from the perspective of the elderly patients with chronic diseases and their family care providers. The Cronbach's alpha was 0.89 among the four items [8]. NCQ is applicable to multiple health care institutions. It is the only one which proved better performance evaluation in primary and secondary health care institutions [16], which has three subscales, personal continuity, personal commitment and multiple continuity. Uijen [16] tested the measurement in 145 cases of community hospitals in outpatients with chronic diseases and 123 outpatients in general hospitals. Common factor extracted by factor analysis explained 88.8%. Cronbach's alpha was 0.86 to 0.96. The instrument is used in the measure of continuity of care for patients with a variety of chronic diseases, but further validation should be measured in patients rather than chronic disease [32].

3.6 Middle Range Theory

In this section, the authors will introduce a middle range theory, the interpersonal relations in nursing, and describe how the concept is embedded in the theory. Interpersonal relation in nursing is derived from interpersonal relations in Psychiatry Model by Hildegard E. Pelau in 1952. Peplau supposed that interpersonal competences of nurses are essential to assist patients to regain well-being [20]. At first, she designated four phases including orientation, identification, exploitation, and resolution. Which were later condensed into orientation, working, and resolution, the original four-phase model is discussed in the section.

Peplau [20] indicated that the first step is orientation which starts at the first meeting between the nurses and the patients, and the nurses' goal is to make the patients accept them by trying to understand the patients' problem as fully as possible and present themselves as caring, knowledgeable, and trustworthy at the same time. In the second phase identification, the nurses begin to seek opportunities to start fostering independence in order to reinforce a sense of mastery and competency, and the patients understand the dependency in their role as patients. As patients begin to take advantage of opportunities presented by nurses, there is a change from dependence toward interdependence. This means they move into the third phase exploitation, in this phase, the patients feel comfortable enough to take full advantage of the services being offered and begin to assume more independence. After the goals are met, patients become independent in mastery of self-care skills and may experience a sense of security and release. In addition, Peplau [20] described that nurses may cast in

stranger, resource person, teacher, leader, surrogate, and counsellor during the process.

The attributes of continuity of care are seamless transfer, flexible reaction, and effective interaction. Continuity of care is an essential element of interpersonal relations [33]. In interpersonal relations in nursing theory, the first goal for nurses is to get patients' trust, which can be generated by continuity of care [34]. And also it is demonstrated that trust was independently associated with communication, interpersonal care, and knowledge of the patients [35].

In the orientation phase, patients treat nurses as strangers and resources person. It is important for nurses to handle a valuable source of patients' information. Seamless transfer is one of the attributes of continuity of care, means comprehensive information and relationship transfer following the patients, which can help nurses to appreciate the patients' problem as completely as possible, and present themselves as knowledgeable, caring, and trustworthy. Without this goal achieved, the patients will not accept the nurses' help. Peplau states that interventions only can be successful if the patient is valued and accepted by the nurse while acceptance is attained by seeking active patient participation in the development of goals for the interventions [36].

Peplau's theory highlights that effective communication is essential to the nurses-patient relationship and required for educational efforts to be successful. It is significant to encompass the patients in forming the goals [36]. And also the emphasis is moved from nurses towards patient, it is more vital to discuss patients' needs, goals and discomfort. All of nurses must make efforts in fulfilling patients' needs for giving adequate support [37]. An significant feature of continuity of care is the ability to deliver appropriate care when required, which requires services to be flexible and adjust to the needs of patients over time [19]. And another is on-going care, which is important for delivering personal tailored advice, and a necessary condition for establishing relation [19]. Besides, in continuity of care, the care provider explains nursing procedures clearly, inspired confidence and involved patients in decision making about their care [19].

4. Conclusions

This concept analysis represents the continuity of care with the focus on patients' and providers' perspective. Globally, continuity of care plays an important role in the circumstance of patient central care and establishing the patient-nurse relationship. The concept remains elusive, and the absence of a common definition has hampered practice and research. The goal of this concept analysis of continuity of care for theory development was to clearly establish the critical attributes that will enable continuity of care to be readily identified. This will make explicit the meaning of continuity of care and promote consistency in using the concept in nursing practice and research. This concept analysis has identified the defining attributes, antecedents, and consequences of continuity of care. A synthesis of the literature concluded that continuity of care can appear both patients' and care providers' perspectives (e.g., experienced continuity, relationship continuity, information continuity, flexibility continuity, and management continuity).

Reference

- Gulliford, M., Naithani, S., and Morgan, M. 2016. "What Is Continuity of Care?" *Journal of Health Services Research & Policy* 11 (4): 248-50.
- Gastmans, C. 1998. "Interpersonal Relations in Nursing: A Philosophical-Ethical Analysis of the Work of Hildegard E. Peplau." *Journal of Advanced Nursing* 28 (6): 1312-9.
- [3] Garrity, S., Longstreth, S., and Alwashmi, M. 2016. "A Qualitative Examination of the Implementation of Continuity of Care: An Organizational Learning Perspective." *Early Childhood Research Quarterly* 36: 64-78.
- [4] Bowers, J., Cheyne, H., Mould, G., and Page, M. 2005."Continuity of Care in Community Midwifery." *Health Care Manag Sci.* 18 (2): 195-204.
- [5] Wei, X., Barnsley, J., Zakus, D., Cockerill, R., Glazier, R.,

and Sun, X. 2008. "Assessing Continuity of Care in a Community Diabetes Program: Initial Questionnaire Development and Validation." *J. Clin. Epidemiol.* 61 (9): 925-31.

- [6] Bachrach, L. L. 1981. "Continuity of Care for Chronic Mental Patients: A Conceptual Analysis." Am. J. Psychiatry 138 (11): 1449-56.
- [7] Kaplan, S. H., Greenfield, S., and Ware, J. E. 1989. "Assessing the Effects of Physician-Patient Interactions on the Outcomes of Chronic Disease." *Med. Care.* 27 (3 Suppl.): S110-27.
- [8] Bull, M. J., Luo, D., and Maruyama, G. M. 2000.
 "Measuring Continuity of Elders' Posthospital Care." J. Nurs. Meas. 8 (1): 41-60.
- [9] American Academy of Family Physicians (AAFP). 2005. Continuity of Care, Definition of American Academy of Family Physicians. Vol. 2005.
- [10] Haggerty, J. L., Roberge, D., Freeman, G. K., and Beaulieu, C. 2013. "Experienced Continuity of Care when Patients See Multiple Clinicians: A Qualitative Metasummary." Ann. Fam. Med. 11 (3): 262-71.
- [11] Hennen, B. K. 1975. "Continuity of Care in Family Practice. Part 1: Dimensions of Continuity." J. Fam. Pract. 2 (5): 371-2.
- [12] Freeman, G., et al. 2001. Continuity of Care: Report of A Scoping Exercise for the NCCSDO. National Coordinating Centre for Service Delivery and Organisation, London.
- [13] Freeman, G. K., Woloshynowych, M., Baker, R., Boulton, M., Guthrie, B., Car, J., et al. 2007. "Continuity of Care 2006: What Have We Learned since 2000 and What Are Policy Imperatives Now." London: National Coordinating Centre for Service Delivery and Organisation.
- [14] Haggerty, J., Reid, R., McGrail, K., Beaulieu, C., and Bréton, M. 2001. "Heare, There and All over the Place: Defining and Measuring Continuity of Health Care." University of British Columbia-Centre for Health Services and Policy Research.
- [15] D'Angelo, D., Mastroianni, C., Hammer, J. M., Piredda, M., Vellone, E., Alvaro, R., et al. 2015. "Continuity of Care during End of Life: An Evolutionary Concept Analysis." *Int. J. Nurs. Knowl.* 26 (2): 80-9.
- [16] Uijen, A. A., Schellevis, F. G., van den Bosch, W. J., Mokkink, H. G., Van, W. C., and Schers, H. J. 2011. "Nijmegen Continuity Questionnaire: Development and Testing of a Questionnaire That Measures Continuity of Care." J. Clin. Epidemiol 64 (12): 1391-9.
- [17] Shortell, S. M. 1976. "Continuity of Medical Care: Conceptualization and Measurement." *Med. Care* 14 (5): 377-91.
- [18] Kerr, J. R., Schultz, K., and Delva, D. 2012. "Two New Aspects of Continuity of Care." *Can. Fam. Physician* 58 (8): e442-9.

- [19] Naithani S, Gulliford M, Morgan M. 2006. "Patients' Perceptions and Experiences of 'Continuity of Care' in Diabetes." *Health Expectations* 9 (2): 118-29.
- [20] Peppercorn, J. M., Smith, T. J., Helft, P. R, et al. "American Society of Clinical Oncology Statement: Toward Individualized Care for Patients with Advanced Cancer." J. Clin. Oncol. 29 (6): 755-60.
- [21] Coulter, A., and Ellins, J. 2007. "Effectiveness of Strategies for Informing, Educating, and Involving Patients." *BMJ* 335 (7609): 24-7.
- [22] Thompson, A. G. 2007. "The Meaning of Patient Involvement and Participation in Health Care Consultations: A Taxonomy." Soc. Sci. Med. 64 (6): 1297-310.
- [23] Gill, J. M., Mainous, I. I. I. A. G., and Nsereko, M. 2000.
 "The Effect of Continuity of Care on Emergency Department Use." *Archives of Family Medicine* 9 (4): 333.
- [24] Burge, F., Lawson, B., and Johnston, G. 2003. "Family Physician Continuity of Care and Emergency Department Use in End-of-Life Cancer Care." *Medical Care* 41 (8): 992-1001.
- [25] Lorenz, K. A., Asch, S. M., Rosenfeld, K. E., Liu, H., and Ettner, S. L 2004. "Hospice Admission Practices: Where Does Hospice Fit in the Continuum of Care?" *Journal of the American Geriatrics Society* 52 (5): 725-30.
- [26] Gray, J., Taylor, J., and Newton, M. 2016. "Embedding Continuity of Care Experiences: An Innovation in Midwifery Education." *Midwifery* 33: 40-2.
- [27] Cornelius, L. J. 1997. "The Degree of Usual Provider Continuity for African and Latino Americans." *J. Health Care Poor Underserved* 8 (2): 170-85.
- [28] Streiner, D. L., and Norman, G. R. 2003. Health Measurement Scales: A Practical Guide to Their Development and Use (Oxford Medical Publications), edited by David L. Streiner, Geoffrey R. Norman and John Cairney. Oxford: Oxford University Press.
- [29] McHorney, C. A., Ware, J. E. J., and Raczek, A. E. 1993.
 "The MOS 36-Item Short-Form Health Survey (SF-36): II. Psychometric and Clinical Tests of Validity in

Measuring Physical and Mental Health Constructs." *Med. Care* 31 (3): 247-63.

- [30] Kollen, B. J., Groenier, K. H., and Berendsen, A. J. 2011. "Patients' Experiences with Continuum of Care across Hospitals: A Multilevel Analysis of Consumer Quality Index Continuum of Care." *Patient Education and Counseling* 83 (2): 269-72.
- [31] Berendsen, A. J., Groenier, K. H., de Jong, G. M., Meyboomde, J. B., Wj, V. D. V., Dekker, J., et al. 2009. "Assessment of Patient'S Experiences across the Interface between Primary and Secondary Care: Consumer Quality Index Continuum of Care." *Patient Education and Counseling* 77 (1): 123-7.
- [32] Uijen, A. A., Schers, H. J., Schellevis, F. G., Mokkink, H. G., Van, W. C., and Wj, V. D. B. 2012. "Measuring Continuity of Care: Psychometric Properties of the Nijmegen Continuity Questionnaire." *Br. J. Gen. Pract.* 62 (600): e949-57.
- [33] Summerskill, W. S., and Pope, C. 2002. "I saw the panic rise in her eyes, and evidence-based medicine went out of the door.' An Exploratory Qualitative Study of the Barriers to Secondary Prevention in the Management of Coronary Heart Disease." *Family Practice* 19 (6): 605-10.
- [34] Fugelli, P. 2001. "James Mackenzie Lecture. Trust--in General Practice." *The British Journal of General Practice* 51 (468): 575-9.
- [35] Tarrant, C., Stokes, T., and Baker, R. 2003. "Factors Associated with Patients' Trust in Their General Practitioner: A Cross-Sectional Survey." *Br. J. Gen. Pract.* 53 (495): 798-800.
- [36] Marchese, K. 2006. "Using Peplau's Theory of Interpersonal Relations to Guide the Education of Patients Undergoing Urinary Diversion." Urologic Nursing 26 (5): 363-71.
- [37] Nyström, M. 2007. "A Patient-Oriented Perspective in Existential Issues: A Theoretical Argument for Applying Peplau's Interpersonal Relation Model in Healthcare Science and Practice." *Scandinavian Journal of Caring Sciences* 21 (2): 282-8.