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Research Article

Nursing Care Coordination for Chronic Diseases in Schools: A Concept Analysis

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Abstract

Objective: There is an effort to increase care coordination in community settings where patients are encouraged to take more responsibility for recognizing, establishing, and monitoring their own healthcare. People with chronic diseases see more healthcare providers, often resulting in overuse, misuse, and lack of continuity in their healthcare. This concept analysis purpose is to identify the importance of nursing care coordination for children with chronic conditions in schools.

Design: Rodgers (2000) evolutionary concept analysis methodology guided the concept analysis.

Sample: The sample for the concept analysis was chosen from inter-professional studies. CINAHL, PubMed, ERIC, and Psychology and Behavioral Sciences Collection databases. Thirty articles were retrieved from 2009 to 2018.

Results: Children with chronic diseases are often faced with increased disability, school absenteeism, emotional problems, and lower academic achievement. Nurses have an integral role in coordinating care that enables better healthcare and reduces healthcare fragmentation.

Conclusion: Nursing care coordination in schools is a fundamental concept to meet the healthcare needs of students living with chronic conditions. This concept analysis supports the notion that school nurses are in a unique position to promote holistic, uninterrupted care coordination for children in school settings.

Keywords: Chronic Illness; Child Health; School Nurse; Care Coordination; Parent

Care coordination, which relates to reducing costs, improving health, and providing quality care [1,2], has been recognized as a crucial component of the Patient Protection and Affordable Care Act (PPACA). The PPACA was enacted in 2010, interest in care coordination as a holistic component of good nursing practice has increased since then [3]. There is an effort to increase care coordination in community settings where patients can take more responsibility for recognizing, establishing, and monitoring their own healthcare needs [4]. The Institute of Medicine (2010) clearly indicated that fragmentation of healthcare, and undesired health outcomes can be minimized by care coordination. Nursing care coordination facilitates holistic, patient and family-centered, complete, continuous, culturally appropriate, respectful, and transparent healthcare [5].

Chronic illnesses are an inordinately large and continually increasing cost burden on patients/parents, health care professionals, and society in the United States of America (USA) [6]. Individuals with chronic diseases see more healthcare providers, often resulting in overuse, misuse, and lack of continuity in their healthcare. These problems related to chronic diseases can be complicated when patients are children, who are often faced with increased disability and emotional problems resulting in school absenteeism and lower academic achievement [7]. Because the detrimental effects of chronic conditions can be attenuated with children, school nurses are in a very good position to coordinate care, and they have an integral role in providing care coordination for the school community [8,9].

Methods

Concepts are active, developing and interconnected, and firm borders often do not exist [10]. Concept analysis is a method of examining the construction and meaning of a concept and clarifying ambiguous conceptions in nursing practice and theory. Rodgers' (2000) evolutionary concept analysis was used to derive the concept analysis on nursing care coordination to garner a more comprehensive understanding. Rodgers' concept analysis procedures are:

1. Define the concept and surrogate terms.
2. Select an appropriate setting and sample for data collection.
3. Identify attributes, antecedents, consequences, and related concepts.
4. Analyze data collected.
5. Identify an exemplary case.
6. Identify concept implications

Definition of concept and surrogate terms

The Agency for Healthcare Research Quality (AHRQ) acknowledged more than forty concept definitions for healthcare. The AHRQ defined care coordination as Care coordination is the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of healthcare services. Organizing care involves the marshaling of personnel and other resources needed to carry out all required patient care activities and is often managed by the exchange of information among participants responsible for different aspects of care [11].

The Commonwealth Fund distinguished pediatric care coordination from the more general definition: "Pediatric care coordination is a patient and family-centered, assessment driven, team-based activity designed to meet the needs of children and youth while enhancing the caregiving capabilities of families" [5].

Case Management is the most common term used interchangeably with care coordination. There are also other surrogate terms for care coordination, including service coordination, case coordination, continuity of care, care integration, and disease management [4,9,12]. However, using the term care coordination instead of commonly-used alternatives emphasizes a collaborative relationship with parents and patients [13].

Setting and sample

The sample for nursing care coordination for chronic diseases in schools concept analysis was chosen from inter-professional studies including nursing, education, and psychology. CINAHL, PubMed, ERIC, and Psychology and Behavioral Sciences Collection databases were used for the search. The keywords were 'care coordination', AND 'nurse OR school nurse', AND 'school-aged children OR students'. The search was further limited to articles about human subjects, published in English, and peer-reviewed. The time period was limited from 2009 to 2018. The CINAHL search resulted in 1169 citations, PubMed located 1480 citations, ERIC Ebsco yielded 51, and Psychology and Behavioral Science Collect found 194 citations. A systematic review of reference titles and accessible abstracts showed significant duplication among results and many of the reported results were not relevant to nursing care coordination. A manual search resulted in one additional article eligible for inclusion. After duplications were removed, and articles were reviewed, thirty articles were included in the final sample (Figure A). The remaining 30 articles were primarily from the nursing discipline (29) and one was from psychology.

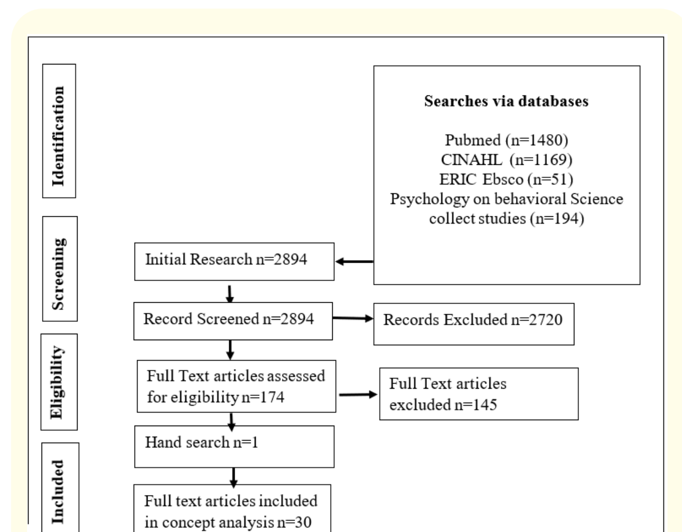

Figure A: Setting and Sample Selection Process.

Note. Data sample was mainly from Nursing discipline (n=29), and Psychology (n=1).

Data findings

Attributes

Attributes provide an accurate definition of the concept that allows a starting point for people to comprehend the contextual effects of common themes [10]. Based on the literature review the attributes related to nursing care coordination for chronic diseases in schools are listed in Table 1 and Figure 1: Holistic patient/parent-centered care, involvement of multiple participants, interdependence, confidence in information exchange, tasks/roles, articulation of goals, recognition of needs, enabling of proper healthcare, and complementary components [1,12-15]. Complementary components can be effective communication, being culturally competent, providing advocacy, and using technology [13]

Holistic Patient/ Parent Centered Care	Spend sufficient time with patient/parent Pay attention to what they say Treat the patient/parent as a unique individual Demonstrate communication skill set Be thoughtful to family beliefs and culture Be responsible for detailed information Comfort patients and make parents feel like partners
Participants	Involve numerous participants (Patient, parent, teachers, social workers, counselors) Collaborate with all participants
Interdependence	Create a cooperative endeavor rather than a dependent/independent relationship
Exchange information	Promote effective communication and ensure all information is updated
Tasks and Roles	Provide nursing expertise Function as liaison among participants Form, fulfill, and keep current a formal written plan for roles and tasks
Articulation of goals	Consider necessities and establish clear goals with patient/parent
Recognition of needs	Chronic disease Multiple health conditions, Assess all financial, social, developmental, psychological, and behavioral needs
Enabling of proper healthcare	Arrange a continuum resources addressing needs Recognize that individuals' healthcare necessitates a multifaceted network of medical and nonmedical participants
Complementary components	Provide advocacy Effective communication Be culturally component Use technology effectively to promote goals

Table 1: Care Coordination Attributes.

Antecedents and Consequences

Discovering circumstances antecedent to the concept of nursing care coordination for chronic diseases in schools presents an opportunity for individuals to comprehend the contextual grounds for the concept itself [10]. Understanding the concept's antecedents allows nurses to better understand how to communicate, help, advocate, and articulate goals with patients and parents. As shown in Figure 1, the pertinent antecedents are a) external factors (i.e., patient/family characteristics, socio-economic situations, and disease conditions); b) cultural factors, including traditions, beliefs, and lifestyle; and c) the care coordinator's and patient/parent knowledge [2,16].

Implementation of nursing care coordination for chronic diseases in schools has resulted in positive outcomes (Figure 1). Better care, greater wellbeing, and cost containment are desired outcomes in healthcare, and nursing care coordination is critical to achieving those outcomes [11]. Nursing care coordination for chronic diseases in schools has many positive outcomes, including empowerment, patient/parent and nurse satisfaction, stronger relationships with healthcare providers, safety during transition, improved quality of life, less fragmented care, and increased adherence to prescribed treatment regimens [8,9,12,13,17-22]. Additional positive consequences include less school absenteeism, improved school performance, increased self-esteem for children, and less financial burden for parents and society [7,8].

Related concepts

The determination of related concepts is based on the literature review and includes related concepts: communication, collaborative relationship/teamwork, motivational interviewing/counseling, promotion of self-management, care planning, case management, and care integration. As noted earlier, case management and care coordination are also surrogate terms for care coordination.

Data analysis

The first reading of the retrieved articles included supported the need for the concept analysis of nursing care coordination. An-

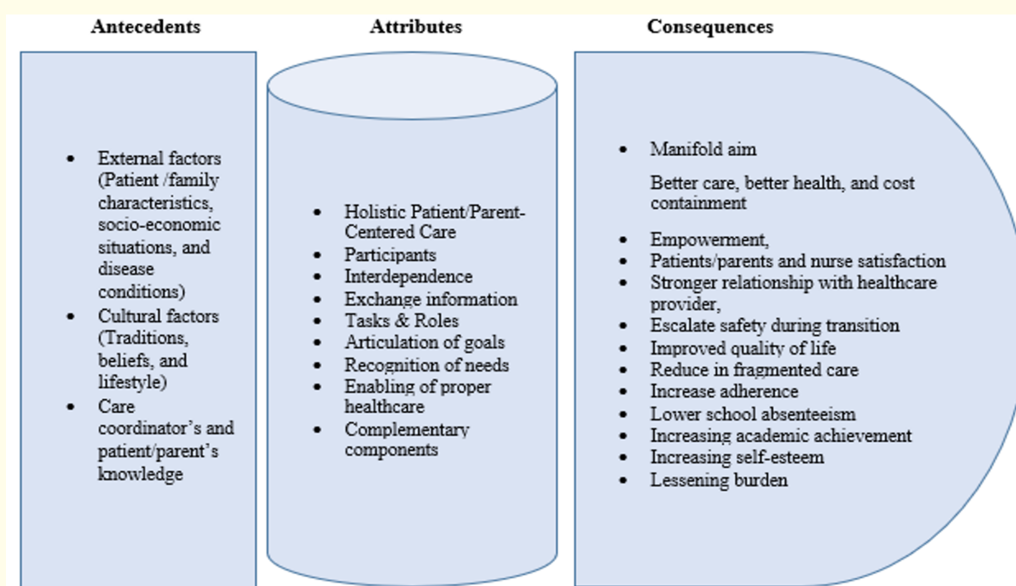

Figure 1: Components of the concept of care coordination.

tecedents, consequences, attributes, related concepts and implications were identified during advanced readings. The data analysis indicated that chronic diseases are closely associated with societal inequalities in children's health and, therefore, nursing care coordination in school settings is essential to maintain and promote better child health outcomes [14,19,23]. Healthcare is often tied to misuse, underuse, and overuse with unmanageable costs and unsatisfactory conclusions [2]. Contextually, the literature revealed that nursing care coordination for chronic diseases in schools is necessary in community settings and beneficial for children with chronic conditions. The Center for Medicare and Medicaid Services advocated for nurses to plan and implement care coordination systems supported by institutes and societies [8]. Nursing care coordination helps define patients' and parents' needs, promotes holistic, better healthcare, and reduces financial burden [2,3]. The concept of care coordination has been used in other disciplines including medicine, psychology, and sociology. This concept analysis substantiates that nurses are in a good position to carry out a robust system for supporting children's and parents' healthcare needs through care coordination.

Exemplary case

Steve is a fifth-grade student and has asthma. He needed to go to the emergency room five times in the last six months. He lives in a two-bedroom apartment with his younger brother, mother, and father. His father works part-time, and his mother does not work outside the home. The prescribed medicines for asthma are expensive. Steve's supply of short-acting bronchodilators was depleted, and his parents could not afford to buy the prescribed long-acting bronchodilator inhalers the previous month. Without the prescribed inhalers, Steve has trouble sleeping nights due to nocturnal coughing. Steve feels bad for his family because they are trying to buy his medication. Steve's mother believes that the physical condition of their home is not good for Steve, but they are financially unable to move to another place or improve the current home environment. The school nurse coordinates care for the school community. The nurse meets with Steve and his parents and assesses Steve's health needs and family concerns. The nurse seeks other services that could help Steve stay healthy in and out of school. The nurse, parents, and Steve discuss his asthma management plan, review the asthma action plan, and the nurse obtains the parents' consent to communicate with Steve's physician. The nurse ascertains that they are eligible to apply for Medicaid services and helps the parents apply on behalf of Steve and his brother. The nurse talks with the social worker about the house conditions and about enrolling Steve in an afterschool community program that teaches children living with asthma to gymnastic as a procedure of therapy. The nurse also connects Steve with a school counselor to discuss his feelings and other social emotional issues.

Figure 2: Nurse connects with the student and parents, assesses their needs, including medical, social, developmental, behavioral, educational, and financial necessities, to accomplish the best well-being and health outcomes. The nurse connects with other involved professions to provide the best health outcomes for Steve and his parents.

Nursing implications

Nursing care coordination is a fundamental concept for the achievement of continuous, holistic healthcare, and it is particularly warranted for patients and parents who have chronic diseases and complex health problems. Nurses must be respective of all individuals' culture, beliefs, values, and decisions. Care coordination requires dedication, administrative support, and resources for better health outcomes, better caregiving, and lower costs of healthcare. Nursing care coordination for chronic diseases should be holistic, patient- and family-centered to deliver the best healthcare and to achieve optimum healing goals [19,24]. To date there is lack of consistency in identifying a theoretical framework for effective nursing care coordination [25]. The National Association of School Nurses Framework for 21st Century School Nursing Practice (the NASN Framework) has five principles and care coordination is one of the main principles [26]. Nurses can use the NASN framework for effective care coordination at school settings [24]. Nursing once they have been prepared to be competent care coordinators by their educational curriculum should continue to develop through continuing education programs in the practice setting [27,28].

Conclusion

This concept analysis reveals the importance of focusing on children with chronic conditions. Care coordination is a fundamental concept for the achievement of healthcare reform of PPACA and needed patients/parents who have chronic diseases, and complex health problems [22,27]. Nursing care coordination ensures that the continuum of care is uninterrupted [29]. Nurses have an integral role to provide patient/parent centered holistic care for better healthcare outcomes. Nursing care coordination for children living with chronic conditions at school settings is inevitable to decrease school absenteeism, emotional problems, and improve wellness.

Further research that demonstrates how school nurses in different types of school systems can design care coordination for children with chronic conditions, advocate for policies that adopt health services coordination as well as address resources and reimbursement issues [28,30]. Identifying available community-based tools, models, and practices is the first step necessary to provide adequate nursing care coordination for nursing care coordination for children with chronic diseases [31]. Ultimately, nurses can implement care coordination intervention methods and test their effectiveness with empirical evidence.

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