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Perspectives in Ambulatory Care

Care Coordination: Roles of Registered Nurses Across the Care Continuum

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Lack of coordination leads to health care that is fragmented, inconsistent, and poorly planned. Conversely, effective care coordination supports achieving the Quadruple Aim. Care coordination, roles of RNs in care coordination, and implications for healthcare delivery are explored.

Six in ten adults in the United States have a chronic illness and four in ten adults have two or more chronic illnesses. Chronic diseases are the leading cause of death and disability and leading drivers of the nation's \$3.3 trillion in annual healthcare costs (National Center for Chronic Disease Prevention and Health Promotion, 2019). Concurrently, the incidence and prevalence of chronic health conditions has increased, with conditions such as diabetes, heart disease, cancer, hypertension, stroke, arthritis, obesity, renal disease, and respiratory diseases leading the way as the most common causes of illness, long-term disability, reduced quality of life, and death (National Center for Chronic Disease Prevention and Health Promotion, 2019; Raghupathi & Raghupathi, 2018). With such a large chronically ill population, the need for improved care is obvious. Individuals with chronic diseases generally receive care by more than one provider in more than one setting, and, too often, their care is not coordinated across the continuum. Within this care environment, medical decision-making occurs in a vacuum without complete information about an individual's condition, health history, medications ordered, care managed, or services rendered. In addition, no one facility is officially responsible and accountable for the individual, meaning no one practitioner takes the lead in making the plan and next steps in care clear. Instead, the job of coordinating care is transferred from the professionals to individuals and their families who are often unprepared to manage the task.

The lack of coordination leads to care that is fragmented, inconsistent, and poorly planned. Medical errors, duplication of tests, and paper shuffling can occur, with results ranging from inconvenient to life-threatening. The lack of coordinated care can also lead to unnecessary emergency room visits and hospitalizations, avoidable readmissions, and excessive resource use causing billions of dollars in wasteful spending each year. In fact, researchers estimate that \$25 to \$45 billion is spent on avoidable complications and unnecessary hospital readmissions (Burton, 2012).

Conversely, effective care coordination supports achieving the Quadruple Aim: improving the care experience for individuals, improving individual health, improving the work life of healthcare providers, and reducing costs (Bodenheimer & Sinsky, 2014). One essential component of effective care coordination is the role of registered nurses (RNs).

The nursing profession has a long history of caring for individuals in a holistic manner, integrating traditional health care with person-centered approaches that are focused on health and healing; and integrating and incorporating interventions from a variety of healthcare disciplines. Across settings of care, RNs provide care that is based on the individual's values, goals, preferences, and specific care needs. RNs lead care coordination programs and interprofessional teams across diverse acute, post-acute, and community-based care settings, playing pivotal roles in the design and implementation of new

care delivery models such as behavioral and physical health integration, Patient-Centered Medical Homes (PCMHs), Accountable Care Organizations (ACOs), and emerging payer-based care delivery initiatives. Connecting and integrating individuals with providers and services, RNs work to optimize individuals' clinical and functional status, as well as self-care management with the goal of improving outcomes and containing healthcare costs. RN-led care coordination is often aligned with quality, safety, payer, and healthcare reform initiatives, placing RNs in a role that is central to healthcare delivery across the care continuum. Care coordination, the roles of RNs in care coordination, and implications for healthcare delivery will be explored.

Background

Care coordination is a hallmark of most healthcare reform models in the United States. Though definitions of care coordination have proliferated over the last decade, the most recent definition from the National Quality Forum's (2017) Care Coordination Endorsement Maintenance Project 2016-2017 is

- a multidimensional concept that includes
 - effective communication among healthcare providers, patients, families, caregivers (regarding chronic conditions);
 - safe care transitions;
 - a longitudinal view of care that considers the past, while monitoring present delivery of care and anticipating future needs; and
 - the facilitation of linkages between communities and the healthcare system to address medical, social, educational and other support needs that align with patient goals. (para. 2)

RNs successfully provide effective care coordination that occurs with different populations in a variety of settings across the care continuum. Populations include adults with diabetes; adults with dementia; adults with terminal illness; children with special care needs; post-stroke adults; adults with chronic obstructive pulmonary disease (COPD); adults with heart failure; disabled individuals with functional impairments; adults in skilled nursing facilities; adults with chronic and/or

complex illness and social needs; individuals with mental and physical health conditions; people living with cancer, persons receiving end-of-life care, older adults with multiple health, social, and non-medical needs; and Veterans (Humowiecki et al., 2018; Kim & Marek, 2017; Kuo, McAllister, Rossignol, Turchi, & Stille, 2018; Lee et al., 2018; Rentas, Buckley, Wiest, & Bruno, 2019; Rossom et al., 2017; Ruiz et al., 2017). One key component of these successful models is the significant role of RNs in providing care coordination as an intervention for individuals, families, and communities.

Individual Perspective

Every individual has different needs when it comes to care coordination. People bring predisposing characteristics that affect care coordination, such as demographics, social structure, culture and health beliefs, psychological characteristics, personal and family resources, ability to access care, self-perceived illness severity, and person-perceived need for care coordination (Vanderboom et al., 2017). Individuals needing care coordination may have multiple complex physical and/or social problems that are challenging to manage. It is not the number of diagnoses that determines the need for care coordination, but the complexity of health problems, complexity of social situations, and complexity manifested by frequent use of healthcare services (Vanderboom et al., 2017). Social determinants of health including social support, financial resources, housing, food, transportation, access to health services, level of education, literacy, culture, language, and socioeconomic conditions can further exacerbate these complexities (Vanderboom et al., 2017).

Provider Perspective

Individuals with chronic illnesses require complex care and social support and, therefore, are typically high users of health, community, and social services (Heslop, Power, & Cranwell, 2014). While care coordination is a team effort in which many healthcare professionals play a role, evidence demonstrates RNs are well-qualified to provide quality and safe coordination of care regardless of practice setting (American Academy

of Ambulatory Care Nursing [AAACN], 2017; American Nurses Association [ANA], 2012). Whether they are employed specifically as care coordinators or provide care coordination in their RN role, RNs are ideally positioned to be the point of accountability.

RNs with competencies in evidence-based dimensions provide care coordination and transition management including: (a) support for self-management, (b) education and engagement of individuals and families, (c) coaching and counseling of individuals and families, (d) advocacy, (e) population health management, (f) teamwork and collaboration, (g) cross-setting communication and transition, (h) person-centered care planning, and (i) nursing process. In addition, informatics and telehealth nursing practice provide the technologies, decision support, and information systems for all dimensions of care coordination (Haas, Swan, & Haynes, 2013). These competencies are drivers for RN practice in all settings across the care continuum. They guide acute care practice and discharge teaching/planning, care transitions between different providers and settings of care, provision of surveillance, and support persons with multiple chronic conditions as they live at home or in assisted living, receive home care within the community, and cope with self-management of their health and health care (Swan, Conway-Phillips, Haas, & De La Pena, 2019).

Organizational Perspective

There has been significant investment in care coordination in recent years. Healthcare systems have increased investment in care coordination service models such as PCMHs and ACOs. The Centers for Medicare & Medicaid Services (CMS) have also invested in a variety of programs including the Comprehensive Primary Care Initiative. This initiative implemented five primary care functions, one of which was care coordination with individuals as well as other care providers (Peikes et al., 2018). A second example is a funded CMS innovation grant called COMPASS (Care of Mental, Physical, and Substance-Use Syndromes), an evidence-based model of care coordination for depressed individuals comorbid with diabetes and/or cardiovascular disease guided

by the TEAMcare study (Coleman et al., 2017; Katon et al., 2005). Ten organizations across the United States participated. The care coordination elements included: (a) a defined scope, rationale, and key partnerships for building comprehensive care coordination programs; (b) effective information exchange; (c) a trained and available workforce; (d) the need for a business model and a financially justifiable program; (e) the need for evaluation and ongoing improvement of care coordination; and (f) importance of individual and family engagement (Coleman et al., 2017; Rossom et al., 2017; Williams et al., 2019).

The Veterans Health Administration's Patient Aligned Care Teams, part of a third care coordination service model, provide interprofessional care coordination in primary care (Zulman et al., 2017). The structural components of the team include a primary care provider, RN, and unlicensed assistive personnel with these core providers being supported by social work, pharmacy, and behavioral health services (Zulman et al., 2017). In each of these care coordination examples, RNs are integral members of the collaborative care team.

Reimbursement

Reimbursement for health care has only recently begun to incentivize and support investment of resources in quality, safety, convenience, and the use of health information technology. In January 2015, CMS set a timeline for changing fee-for-service payment models to value-based payment models. By the end of 2018, 50% of fee-for-service models had been converted. Effective January 1, 2019, CMS released the Merit-Based Incentive Payment System (MIPS) and Alternative Payment Model (APM) incentive regulation, with payment adjustments based on performance. Providers select to participate in MIPS or APMs. MIPS encompasses aspects of three prior programs: Physician Quality Reporting Program, Physician Value-Based Payment Modifier, and Medicare Electronic Health Record Incentive Program. APM provides incentives to change from fee-for-service models to those that are value based (CMS, n.d.a). These two quality payment incentive programs reward value and outcomes. Performance is measured through the data

providers report in four categories: quality, improvement activities, promoting interoperability, and cost. Improvement activities is a new performance category that includes an inventory of activities through which providers/practices improve care processes, enhance individual engagement in care, and increase access to care. The inventory allows providers/practices to choose activities appropriate to their practice from such categories as enhancing care coordination, using shared decision-making, and implementing expansion of practice access (CMS, n.d.b).

Care coordination is currently based in a fee-for-service payment model. The 2019 CMS Physician Fee Schedule introduced new billing codes for a range of care coordination services. These codes add to a growing list of existing fee-for-service payments created by CMS to incentivize better coordination of care; however, RNs are not an approved provider for these services. For example, RNs employed by a practitioner providing transitional care management (TCM) and/or chronic care management (CCM) may provide the care coordination portion of TCM and the care management services of CCM "under general supervision" (ANA, 2017, p. 2).

A second payment method is for value-based care models, such as PCMHs and ACOs. In these models, providers are responsible for quality and costs, thus providing an incentive to implement care coordination activities as described in the quality payment program.

Roles for Registered Nurses

The debate over addressing care coordination and the roles of RNs includes: (a) barriers to adopting the RN role and educating RNs in evidence-based care coordination competencies, (b) challenge of parsing out the contributions of RNs versus those of interprofessional team members to quality outcomes, (c) overlap of providers who can and do provide care coordination, (d) potential competition between providers to perform and be reimbursed for care coordination, (e) ability for RN care coordinators to be recognized as billing providers, and (f) best practices to support individuals and/or caregivers in shared decision-making and self-care management.

Barriers to Adopting RN Roles in Care Coordination

A recent study identified more than 25 barriers to adopting the RN role in care coordination across the continuum of care. Barriers included: (a) cost of training RNs and cost of RNs performing care coordination, (b) variation in reimbursement policies (fee-for-service vs. value-based payment), (c) complicated taxonomy of care coordination (e.g., over 45 titles for care coordination roles were identified in one organization), (d) lack of interoperability of electronic health records (EHRs) across the healthcare system, (e) lack of role definition and role clarity across the care continuum (e.g., individual RN care coordination roles versus care coordination interventions being integral to every RNs repertoire), and (f) lack of knowledge about care coordination outcome measurement (Haas, Conway-Phillips, Swan, & De La Pena, 2019).

Contributions of RNs to Quality Outcomes

Critical to informing reimbursement policies is the need for quality measures and outcome data. Measures have been developed to address the structure, process, and outcomes of interventions sensitive to ambulatory nursing care/practice (Start, Matlock, Brown, Aronow, & Soban, 2018). Technical expert panels comprising RNs from organizations across the country convened to provide voice and direction to the development of measures that were both feasible to capture in EHRs and meaningful to practice.

In 2016, measure sets were defined for ambulatory surgery centers and procedure centers that included structure of staffing and outcomes of care (Brown & Aronow, 2016). In 2017, measures were expanded to primary and specialty care settings for measure sets that evaluated the process of assessment and follow-up planning for pain management, hypertension, community fall risk, depression, and body mass index.

The next generation of measures address the more complex work of care coordination, transition management, and virtual care through telehealth. A number of currently tested quality measures and indicators linked with care coordination dimensions and competencies are

available. For example, support for self-management dimension is linked with the measure set for pain, hypertension, and diabetes monitoring; cross-setting communication and transition is linked with the measure set for admission and readmission; person-centered care planning is linked with risk assessment and follow-up plans; advocacy is linked with advanced care planning; and teamwork and collaboration is linked with staffing, volume, and role demographics.

Overlap and Competition Among Providers

Many of these issues are grounded in a fee-for-service mentality that fails to recognize care should result in high-quality outcomes, and quality of outcomes is what should be reimbursed. Unfortunately, CMS methods provide reimbursement under a fee-for-service model. In addition, CMS is still focused on the medical model, so reimbursement for care coordination currently is paid to the physician even though the physician is not doing care coordination; it is being done by providers associated with the physician (Erikson, Pittman, LaFrance, & Chapman, 2017). Within CMS, reimbursement for interprofessional team-based care is not yet a reality despite recognition that high-quality outcomes are the result of team-based care.

Recognition of RNs as Billing Providers

Currently, Medicare cannot make direct payment to RNs for care coordination activities as they are not recognized with a benefit category. To pursue a change in statute with Congress, evidence would need to support that direct payment to RNs can achieve quality improvement and cost savings (ANA, 2017). Documentation is the key to tracking outcomes achieved by RNs in the context of team-based care. It is imperative RNs work with a variety of stakeholders to develop documentation screens in the EHR that reflect the activities, processes/outputs, and outcomes RNs performing care coordination activities accomplish with individuals across the care continuum. Mining data generated from such documentation in the EHR will ultimately demonstrate the value (improved quality and reduced costs) of RNs as part of the

interprofessional team. This will require a professional designation that is grounded in the scope of practice of RNs documenting in the EHR and has the potential to allow mined data to show what RNs are doing and the outcomes achieved. Ultimately such data will demonstrate the percent of time spent by RNs, whether they are employed specifically as care coordinators or provide care coordination in their RN role, on specific care coordination activities with the outcomes achieved (Haas & Swan, 2014).

Best Practices for Engagement and Self-Care Management

At the center of care coordination is the individual, family, and/or a caregiver. In the process of coordinating care, RNs serve as advocates for the inclusion of individuals, families, and/or caregivers in the design of integrated and accessible care that is based on the individual's values, goals, preferences, and needs. Engagement in self-care management and shared decision-making values the strengths and contributions individuals and families bring as members of the healthcare team and underscores a shift away from more paternalistic models of care in which clinicians tell individuals what they should do, to models in which providers partner with individuals (Krist, Tong, Aycock, & Longo, 2017; Swartwout, Drenkard, McGuinn, Grant, & El-Zein, 2016).

Concurrently, individual and family engagement has become a major focus of healthcare reform and policy development. A growing body of literature suggests strengthening self-care management and shared decision-making supports improved health outcomes and care experiences, as well as contributes to managing costs (AAACN, 2017; Koh, Brach, Harris, & Parchman, 2013; Krist et al., 2017). Examples of improved health outcomes, such as decreased decisional conflict, improved treatment adherence to asthma pharmacology, enhanced likelihood of receiving guideline-concordant depression care, decreased depression-related symptoms, and increased confidence in dealing with COPD-related breathing problems, have been noted when individuals are effectively engaged in self-care management (Grande, Faber, Durand,

Thompson, & Elwyn, 2014). Rapidly evolving individual health record system functionality such as secure messaging, tracking, sensor/device monitoring, and person-reported outcomes has the opportunity to further support individual empowerment and information sharing toward improved self-care management and health outcomes (Bouayad, Ialynytchev, & Padmanabhan, 2017).

Self-care management support and shared decision-making are essential dimensions of the role of RNs in care coordination. Enhanced self-care management can improve early identification and treatment of problems and physical outcomes for some conditions, and improve personal outcomes such as self-efficacy, empowerment, adherence to treatment regimens, and quality of life.

Implications

In response to obvious and widespread faults in healthcare delivery, strides have been made to correct a system of poor care coordination. Implications include:

1. Investing in RN roles in care coordination in all practice settings with full practice authority.
2. Investing in SNOMED CT coding to enable tracking of nurse care coordination interventions and outcomes to measure and evaluate impact; and advocate for national EHR standardization of use in the capture of SNOMED CT coded interventions and related outcomes.
3. Addressing issues with billing codes for promoting care coordination (delineate requirements for payment of care coordination and qualifications of providers; obtain National Practitioner Identifiers for RNs).
4. Advocating for interprofessional care coordination teams with a baccalaureate-prepared RN as the point of accountability in all care settings.
5. Addressing variability in care coordination interventions and outcomes across payment models.
6. Advancing the role and use of technology in improving care coordination and communication within and across settings,

disciplines, and with individuals, families, and caregivers.

7. Capitalizing on the role of individuals/caregivers in self-care management and shared decision-making in improving care coordination and communication. \$

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