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Home Care Case Managers' Integrated Care of Older Adults With Multiple Chronic Conditions

A Scoping Review

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ABSTRACT

Purpose of Study: The purpose of this scoping review was to explore peer-reviewed research and gray literature to examine the extent, range, and nature of available research that describes how home care case managers (HCCMs) provide integrated care for older adults with multiple chronic conditions (MCCs); identify how case management standards of practice correspond with functions of integrated care; identify facilitators and barriers to case management and integrated care delivery; and propose a framework to describe how HCCMs can use case management standards to provide integrated care to older adults with MCCs.

Primary Practice Setting: Community, home care settings.

Methodology and Sample: Scoping review; older adults older than 65 years with MCCs, case managers and health care professionals who provide care for older adults with MCCs.

Results: The study findings demonstrated that HCCMs consistently used the case management standards assessment, planning, implementation, and evaluation to provide all professional and clinical integrated care functions, and were least likely to use the standards of identification of client and eligibility for case management and transition to provide professional and clinical integrated care functions. In addition, HCCM use of professional and clinical integrated care functions was inconsistent and varied based on use of case management standards. All case management standards and integrated care functions were found to be both facilitators and barriers, but were more likely to facilitate HCCM work. Interestingly, the standards of assessment, planning, and implementation were more likely to facilitate functional integration, whereas the integrated care functions of intra- and interpartnerships, shared accountability, person centered of care, and engagement for client self-management were more likely to facilitate normative integration. We also found that HCCMs use case management standards and integrated care functions to provide care for older adults with MCCs at the professional (meso) and clinical (micro) levels.

Implications for Case Management Practice: Variations in HCCM practice may impact the delivery of case management standards when caring for older adults with MCCs. This has implications for the comprehensiveness and consistency of HCCM practice, as well as interdisciplinary health professional and the client's awareness of the HCCM role when providing integrated care to older adults with MCCs within home settings. The greatest facilitators and barriers to integrated care are those case management standards and clinical and professional integrated care functions that focus on partnerships, collective and shared responsibility and accountability, coordinated person centered of care for clients, and ensuring engagement and partnership in self-management. This indicates the need for development of case management policies and programs that support the work of HCCMs in the delivery of seamless and collaborative case management and integrated care functions that foster collaboration and partnership-building efforts. The development of a new case management and integrated care conceptual framework that includes case management standards, professional and clinical integrated care functions would guide HCCM integrated care practice, policy and research to support client and family-centered care, and foster shared values for sustainable partnerships across care settings.

Key words: *case management, community, frail seniors, home care, integrated care, multimorbidity, older adults with multiple chronic conditions*

In Canada, the number of older adults 65 years and older in the population is estimated to increase from 15% to 28% between the years 2013 and 2063. According to Statistics Canada's projection scenarios, between 2013 and 2045, the population 80 years and older will increase from 1.4 million

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Older adults with MCCs report lower health status, take five or more prescription medications, have higher rates of health care utilization and costs, and are at higher risk for adverse events (falls, hospitalization, and death). This population is at high risk for other adverse health outcomes related to decreased cognition, physical and functional limitations, depression, lack of social support, financial limitations, and reduced access to health and community services (Markle-Reid et al., 2011).

to 4.9 million, representing about 10% of the total Canadian population. Adding to the urgency, this population subset increase is timed to occur just as the cohort of older adults 65 years or older also enters this age range (Canadian Institute for Health Information, 2011; Statistics Canada, 2015).

Chronic illness, and particularly multimorbidity, has become a key driver of our Canadian health system, with the intensity and increase in health care use, reciprocal to the increasing number of chronic conditions (Broemeling, Watson & Prebtani, 2008; Canadian Institute for Health Information, 2011; Chouinard et al., 2013; Vogeli et al., 2007; World Health Organization, 2011). Multimorbidity, or multiple chronic conditions (MCCs), is defined as living with two or more chronic diseases (Aging, Community & Health Research Unit, 2013; McMaster Health Forum, 2013). It is estimated that more than 90% of those 65 years and older live in the community, with older adults with MCCs representing 33% of this group (Canadian Institutes of Health Research, 2014).

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However, current organizational health structures and strategies, such as chronic disease management and case management approaches, are frequently erroneously equated to integrated care. In addition, many chronic illness management programs are developed for populations with one specific disease, such as diabetes or chronic obstructive pulmonary disease. These disease-specific programs do not consider the perspectives or the varying complex needs of the older adult with MCCs (van der Vlegel-Brouwer, 2013), and often are provided from the perspective of the health care professional. As a result of these barriers, older adults with MCCs continue to experience decreased access, continuity, quality, and fragmentation of care in all health systems, including home care programs (van der Vlegel-Brouwer, 2013).

Continued strategies to address the current and growing rates of chronic disease are required to enhance the quality of care, address health and social challenges, improve health outcomes of older adults with MCCs, and reduce pressures on health care services, including home care (CHCA, 2013; Health PEI, 2013; Markle-Reid, Browne, & Gafni, 2013).

Home Care

Internationally, there has been a major shift of the provision of care from institutional to home and community. Several reasons for this shift include preference for receiving care at home (Beswick, Gooberman-Hill, Smith, Wylde, & Ebrahim, 2010), an aging population with increasing rates of chronic illness (Wilhelmson et al., 2011), more sophisticated technology (Matthew Maich et al., 2016), and most significantly efforts to contain health care budgets (Landers, Madigan, & Leff, 2016). Home care is generally perceived to be lower in cost to deliver than acute and long-term care services (Spoorenberg et al., 2013). Therefore, available home care, in concert with a high-functioning health care system, has not only the potential to support cost containment, but also to improve the care and quality of life of individuals who may otherwise be cared for in an institutional setting (Health Canada, 2015; MacAdam, 2008; Spoorenberg et al., 2013).

In Canada and other developed countries, home care is vital to health care systems. In 2012, more than 2 million Canadians from all subsets of the population relied on home care services. Of all these groups, older adults with MCCs represent the largest number, as they are estimated as one in six home care recipients (Accreditation Canada & Canadian Home Care

Association, 2015; Statistics Canada, 2015). Not surprisingly, the demand for home care is outpacing the available funding and resources within our current fragmented system structures. This inhibits quality care for older adults with MCCs and directly affects the scope and quality of care that home care case managers (HCCMs) can provide for older adults with MCCs (Accreditation Canada & Canadian Home Care Association, 2015; Chappell & Hollander, 2011; CHCA, 2012; 2013; Cripps, 2011; Dubuc et al., 2013; Henningsen & McAlister, 2011; National Case Management Network [NCMN], 2009, 2012; Sinha, 2011; Røsstad, Garåsen, Steinsbekk, Sletvold, & Grimsmo, 2013; Wilhelmson, 2011).

Home Care Case Management and Integrated Care

According to the NCMN (2009), case management is a client-driven, collaborative, process that ensures effective and efficient use of resources for the provision of quality health and social support services in a variety of care settings, including home care. The Canadian Standards of Practice for Case Management include client identification and eligibility for case management services, assessment, planning, implementation, evaluation, and transition (NCMN, 2009). HCCMs use these case management standards to work collaboratively with clients and their family caregivers to identify goals of care and include them as partners with the interprofessional team (Community Health Nurses of Canada, 2011; Fraser & Strang, 2004).

HCCMs provide care to older adults with MCCs to promote health and to support their well-being, and through a variety of home care models, also use an integrated care approach. Integrated care refers to a process or strategy for improving the coordination and quality of health services to better meet the needs of patients and providers. There is no single definition or best practice model for integrated care. It can mean different things in different contexts, and it can take many forms. Integrated care models require flexibility and a focus on removing the barriers to integrated care rather than being prescriptive in nature (CHCA, 2006; 2009; 2013; Kodner & Spreeuwenberg, 2002).

A common and congruent feature of successful integrated care includes facilitated case management (Johri, Beland, & Bergman, 2003; MacAdam, 2008, 2011). The benefits for older adults with MCCs receiving integrated care through case management interventions include increased engagement and capacity building in making decisions about their own care and support in enabling self-management (CHCA, 2012). The benefits for HCCMs working within an integrated care model or approach include the ability to define vulnerable populations in order to support relationships between health care teams and the vulnerable population or community to provide a more coordinated approach to the management of their care (Carrier, 2012; Lukersmith, Millington, & Salvador-Carulla, 2016).

Several models of integrated care within home care programs, such as PRISMA and PACE, include case management. These models have been implemented in several programs both nationally and internationally as a means to provide quality and cost-effective care for older adults with MCCs (Carrier, 2012; de Stampa et al., 2013; Dubuc et al., 2013; Hammar, Rissanen & Perälä, 2009; MacAdam, 2008; Nuño, Coleman, Bengoa, & Sauto, 2012; Petrakou, 2009; Procter, Wilson, Brooks, & Kendall, 2013; Røsstad et al., 2013; Valentijn, Sanneke, Opheij, & Bruijnzeels, 2013; Veras et al., 2014; Watkins, Hall, & Kring, 2012; Wilhelmson et al., 2011). However, there are knowledge gaps related to HCCMs and the integrated care of older adults with MCCs. These include a lack of understanding of the complex elements of the multifaceted role of the HCCM in the care of older adults with MCCs and the clinical standards and evidence-based case management competencies required for care of older adults with MCCs. There is also a need to increase knowledge and understanding of how HCCMs plan, coordinate, and deliver care for older adults with MCCs within an integrated care approach with interprofessional teams that span a variety of care settings, health care institutions, and systems (Glasgow et al., 2002; Nutting et al., 2007; Pearson et al., 2005; Piatt et al., 2006; Shortell et al., 2004; Siminerio, Piatt, & Zgibor, 2005; Siminerio, Zgibor, & Solano, 2004; Siminerio, et al., 2006; Stroebel et al., 2005; Stuckey et al., 2009; Szecsenyi, Rosemann, Joos, Peters-Klimm, & Miksch, 2008; Vargas, Mangione, Asch, Keesey, & Rosen, 2007; Walters, Adams, Nieboer, & Bal, 2012).

HCCMs are in a unique position to provide integrated care to promote the health and independence of older adults with MCCs and their family caregivers (Jacelon, 2013). The impact of case management and

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integrated care approaches on delaying institutionalization, reducing acute care stays, and on the quality of life for older adults with MCCs are reasonably well described in the literature (Carrier, 2012; Lukersmith et al., 2016; Reilly, Hughes & Challis, 2010; Veras et al., 2014). However, we were unable to find reviews that explore case management and integrated care as complementary functions in the care of older adults with MCCs in the home care setting. An exploration of available research literature related to HCCMs' ability to provide integrated care to older adults with MCCs could add to the knowledge base in this area. Because the literature on older adults with MCCs, home care, case management, and integrated care is vast and somewhat desperate, a scoping review is appropriate for understanding the current state of knowledge.

Methods

Study Aim and Design

After completing a preliminary search of the literature and considering the broad nature of the research question, it was determined that a scoping review was the best approach to meet aims of our review. A scoping review is a type of systematic review that addresses broader topics where many different study designs might be applicable (Arksey & O'Malley, 2005). It is employed to determine the value of undertaking a systematic review, provide a rigorous and transparent method for mapping research to identify gaps in existing literature, and summarize and disseminate research findings (Arksey & O'Malley, 2005; Colquhoun et al., 2014 Grant & Booth, 2009; Levac, Colquhoun, & O'Brien, 2010).

Arksey and O'Malley's (2005) scoping review method was used to answer our research question, "How do home care case managers provide, or not provide, integrated care to older adults with multiple chronic conditions?" The aim of our scoping review was to:

(a) Explore peer-reviewed research and gray literature, such as unpublished government reports, to examine the extent, range, and nature of available research that describes how HCCMs provide integrated care for older adults with MCCs;
(b) Identify how case management standards of practice correspond with functions of integrated care;
(c) Identify facilitators and barriers to case management and integrated care delivery; and
(d) Propose a framework to describe how HCCMs can use case management standards to provide integrated care to older adults with MCCs.

The scoping review process is an iterative, nonlinear, and evolving process where researchers reflexively engage with the steps of the scoping review, and often repeat review steps in order to ensure comprehensiveness of literature (Arksey & O'Malley, 2005).

The five stages of our scoping review process included:

1. Identifying the research question,
2. Identifying relevant studies,
3. Study selection,
4. Charting the data, and
5. Collating, summarizing, and reporting the results (Arksey & O'Mally, 2005).

They also recommend an optional sixth step of consultation, which due to resource constraints was not used in this review. Because scoping reviews are used to provide an overview of available evidence rather than assess the quality of the evidence, the methodological rigor of the included studies was not evaluated.

Identifying the Research Question

There is a lack of consensus in the research and health policy literature on home care practice and how HCCMs use case management to provide integrated

There is a lack of consensus in the research and health policy literature on home care practice and how HCCM care use case management to provide integrated care for older adults with MCCs.

care for older adults with MCCs. This knowledge informed the development of our research questions as well as the author's previous practice and research on case management and integrated care for older people with MCCs.

Identifying Relevant Studies

The preliminary electronic search was completed in collaboration with a Health Science Librarian on OVID yielding 236 references. Additional electronic databases accessed included CINAHL Plus, PubMed, Cochrane Library, EMBASE, Scopus, Web of Science, Google, and Google Scholar, yielding 1478 references. Key word searches, use of MeSH terms, and explosion of terms produced a wide variety of search terms and combination of terms. Additional search strategies included checking reference lists and hand searching of key journals. We also searched existing networks of organizations to retrieve gray literature generated from health, policy, and government websites, yielding an additional 360 references. The total number of retrieved references was 2074. After duplicates were removed, the number of references included was 926. Reference titles and abstracts were screened by L.G.B. resulting in 97 articles and reports for full text review. Consensus on final included articles was achieved through discussion between researchers. A total of 14 articles met the criteria for inclusion (Table 1).

Refworks and Mendeley were used to store and organize retrieved studies. Folders and subfolders were created to differentiate between studies retrieved from various databases and to manage studies that were included or excluded from the final review. Microsoft Word documents and Excel spreadsheets were used to organize the retrieved literature, and a PRISMA diagram (Moher, Liberati, Tetzlaff, & Altman, 2009) was developed to track the flow of research and gray literature (Figure 1).

Study Selection

Our inclusion criteria were (a) quantitative, qualitative, and mixed-method research studies; (b) conducted in home care settings; (c) focused on older adults 65 years and over with MCCs (more than two diagnosed chronic illnesses and not limited to specific chronic diseases); and (d) used case management and integrated care approaches. Gray literature was included to capture government or conference reports, frameworks, and policies that specifically targeted integrated care and case management of older adults with MCCs in the home care setting (Center for Reviews and Dissemination, 2008). Our exclusion criteria included (a) studies conducted in acute care, long-term care, or rehabilitative clinical settings; (b) pediatric, adolescent, young, or middle age adult populations; and (c) a diagnosis of only one chronic illness.

Charting the Data

Data were extracted and then organized using a data extraction tool adapted from Peters et al. (2015). The data extraction tool was applicable to all methodological research article types, and was used to collate, summarize, and share data for team review and decision-making (Arksey & O'Malley, 2005; Armstrong, Hall, Doyle, & Waters, 2010; Levac et al., 2010). Extracted data included journal, title, first author/year, study location, method/design, sample/population, aim, and findings.

Full review articles were imported into NVivo 11 for more detailed data analysis. We used a deductive content analysis approach to describe the phenomenon of how HCCMs provide, or do not provide, integrated care to older adults with MCCs (Elo & Kyngas, 2008). This approach is useful when the aim is to test concepts, frameworks, or hypotheses (Marshall & Rossman, 1995). A structured categorization matrix was developed using the Canadian Standards of Practice for Case Management (NCMN, 2009) and Valentijn et al.'s (2013) Conceptual Framework for Integrated Care (Figure 2). We also captured barriers and facilitators of case management practice of integrated care through our analysis. Our unit of analysis was the included articles. Graneheim and Lundman (2004) advise that whole texts are the most suitable unit of analysis, as they are large enough to be considered as a whole and small enough to not lose context and meaning during the analysis process.

The six case management standards of practice (NCMN, 2009) were used to identify the core competencies, practice expectations, and processes of how case management was provided to older adults with MCCs. The standards include client identification and eligibility for case management services, assessment, planning, implementation, evaluation, and transition.

To identify the work of how HCCMs provided integrated care to older adults with MCCs, the three levels of integrated care (macro, meso, and micro) that were originally reported by Valentijn et al. (2013) were used. We then examined each of these levels to identify the integrated care functions within the context of HCCM practice for older adults with MCCs (Valentijn et al., 2013). It was found that two of the three levels of integrated care correspond with case management practice, which are the meso- and microlevels. Valentijn et al. (2013) identify the mesolevel as professional integrated care and the microlevel as clinical integrated care. They further explain that both professional and clinical integrated care reflect a biopsychosocial perspective of health, and

TABLE 1
Summary of Studies Included in Scoping Review (n = 14)

First Author/Year	Journal	Paper Title	Location	Method/Design	Sample	Aim
McWilliam et al. (2000)	*Healthcare Management Forum*	Case management approaches for in home care	Canada	Quantitative: Two-phased exploratory, descriptive design	Seniors >65 years, n = 148; case managers, n = 40; caregivers, n = 73	Determine what factors differentiated case manager selection of one of the three generic approaches to case management for care of in-home clients older than 65 years
Landi et al. (2001)	*Journal of Clinical Epidemiology*	A new model of integrated home care for the elderly: Impact on hospital use	Italy	Quantitative: RCT	Seniors >65 years, more than two chronic conditions, n = 1,204	Examine effect of an integrated social and medical home care program based on comprehensive geriatric assessment (minimum data set for home care) and case management on hospital use and cost of frail elderly individuals
Hallberg and Kristensson (2004)	*Journal of Clinical Nursing*	Preventive home care of frail older people: A review of recent case management studies	Sweden	Qualitative: Literature review	Seniors >65 years, more than two chronic conditions	Explore and summarize the empirical literature on recent studies of case/care management interventions for community-dwelling frail older adults with regard to the content of the interventions and the nurse's role and outcome
Béland et al. (2006)	*Canadian Journal on Aging*	Integrated services for trail elders: A trial of a model for Canada	Canada	Quantitative: Experimental study	Frail elderly >65 years, more than two multiple chronic conditions, n = 1,230	Compare differences in utilization and costs of health and social services as between the senior admitted to SIPA and those receiving the services usually available to frail elderly persons within the Quebec health and social system
Onder et al. (2007)	*Journal of the American Geriatrics Society*	Case Management and risk of nursing home admission for older adults in home care: Result of the AgeD in Home care study	Czech Republic, Denmark, Finland, France, Germany, Iceland, Italy, the Netherlands, Norway, Sweden, the United Kingdom	Mixed method: Retrospective cohort study	Seniors >65 years, more than two chronic conditions, n = 3,292	Explore the relationship between a case management approach and the risk of institutionalization in a large European population of frail, older people in home care
Golden et al. (2010)	*The Gerontologist*	Care management's challenges and opportunities to reduce the rapid rehospitalization of trail community-dwelling older adults	USA	Qualitative	Frail older adults with multiple chronic conditions	Identify challenges facing care managers, discuss the current limitations of care management, and specify opportunities to improve the effectiveness of transitional care of community-dwelling frail older adults
Lupari et al. (2010)	*Journal of Clinical Nursing*	We're just not getting it right: How should we provide care to the older person with multi-morbid chronic conditions?	Ireland	Mixed method: Systematic review	Seniors >65 years, more than two chronic conditions Study 1, n = 7,759; Study 2, n = 1,112; Study 3, n = 11; Study 4, n = 228 Study 5, n = 597; Study 6, n = 27; Study 7, n = 19; Study 8, n = 74; total n = 9,827	Appraise available research and service evaluation evidence on nurse-led case management services targeting older people with multiple chronic conditions in their own homes

(*continues*)

TABLE 1
Summary of Studies Included in Scoping Review (n = 14) (*Continued*)

First Author/Year	Journal	Paper Title	Location	Method/Design	Sample	Aim
de Stampa et al. (2013)	*The Gerontologist*	Opening the black box of clinical collaboration in integrated care models for frail, elderly patients	Canada and France	Qualitative: Grounded theory	Primary care physicians, n = 35; care managers, n = 7; geriatricians, n = 4, who care for older adults >65 years with multiple chronic conditions	Understand better the clinical collaboration process among primary care physicians, case managers, and geriatricians in integrated models of care for frail older adults
Markel-Reid et al. (2013)	*Journal of Evaluation in Clinical Practice*	Nurse-led health promotion interventions improve quality of life in frail older home care clients: Lessons learned from three randomized trials in Ontario, Canada	Canada	Quantitative: RCT × 3	Frail older adults >65 years, more than two chronic conditions, n = 498	Evaluate the effectiveness of different multicomponent nurse-led health promotion and disease prevention interventions
Vanderboom et al. (2013)	*Care Management Journals*	Developing a community Care team: Lessons learned from the community connections program, a health care home-community care team partnership	USA	Qualitative: Intervention evaluation	CCP team members, n = 5; older adults >65 years with more than two chronic conditions, n = 3; family support persons, n = 3	Identify strengths and limitations of intervention approach to be considered before broad use of the CCP with patients in ambulatory care settings
Park et al. (2014)	*International Journal of Integrated Care*	Supporting frail seniors through a family physician and home health integrated care model in Fraser Health	Canada	Mixed methods: Descriptive pilot implementation	Older adults >65 years with multiple chronic conditions	Provide higher quality, more appropriate, coordinated and efficient care, improved patient, caregiver, and physician interactions with the health system, improved health and prevention of acute care visits by senior adult patients
Gustafsson et al. (2013)	*BMC Health Services Research*	Case managers for older persons with multi-morbidity and their everyday work: A focused ethnography	Sweden	Focused ethnography qualitative	Case managers who care for older adults with multiple chronic conditions, n = 9	Explore the everyday work undertaken by case managers within a CM intervention, with a focus on their experiences
Hjelm et al. (2015)	*BMC Geriatrics*	The work of case managers as experienced by older persons (75+) with multimorbidity: A focused ethnography	Sweden	Qualitative: focused ethnography	Older adults >65 years with multiple chronic conditions, n = 13	Explore older persons' (75+) with multimorbidity experiences of case managers
Suijker et al. (2016)	*PLoS One*	Effects of nurse-led multifactorial care to prevent disability in community-living older people: A cluster randomized trial	The Netherlands	Quantitative: Cluster Randomized trial	Seniors >70 years at risk for functional decline and more than two chronic conditions, n = 2,283 (intervention group, n = 1,209; and control group, n = 1,074)	Evaluate the effects of nurse-led multifactorial care to prevent disability in community-living older adults

Note. CCP, community connections program; CM, case manager; RCT, randomized controlled trial; SIPA, integrated services for frail elders.

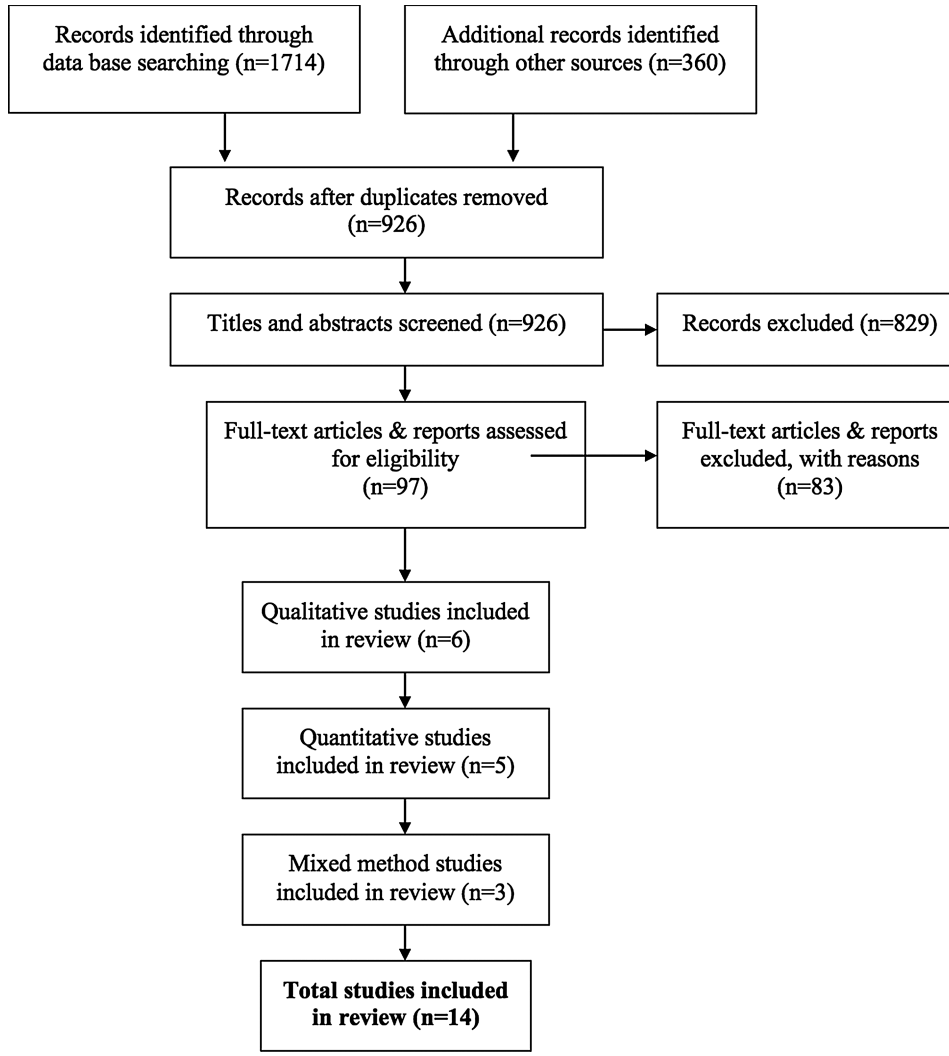

FIGURE 1
Scoping review PRISMA flow diagram.

are used to achieve person-focused care within the conceptual framework (Valentijn et al., 2013).

We determined that it was appropriate to exclude Valentijn et al.'s (2013) macrolevel, which focuses on system-level integrated care, and the aspect of the mesolevel that focused on organizational-level integrated care from our analysis. Within their conceptual framework, both the meso- and macrolevels are directed at population-based outcomes that describe broader system and organizational foci, therefore are beyond the scope of our review.

Using Valentijn et al.'s (2013) Conceptual Framework for Integrated Care, seven functions of professional integration (meso) and five functions of clinical integration (micro) were identified that can be used within home care case management. Professional integrated care functions are carried out through partnerships between health care professionals both within (intra) and between (inter) organizations and are based on shared competences, roles, and responsibilities to deliver care to a population (Valentijn et al., 2013). These functions include a collective responsibility to provide a continuum of care, shared accountability for integration of services, shared problem-solving, shared decision-making, commissioning services, interprofessional partnerships, and intraprofessional partnerships.

Clinical integrated care functions refer to the coherence in the primary process of care delivery to individual patients. Clinical integration refers to the extent that health care professionals coordinate patient care services across various professional, institutional, and sectorial boundaries in a system (Valentijn et al., 2013). These functions include fostering client engagement and participation for self-care management and decision-making, coordination of care for clients, person-centered care versus disease-centered care, matching services to meet client need, and hands-on primary care delivery. We used this framework, as well as the categories of facilitators

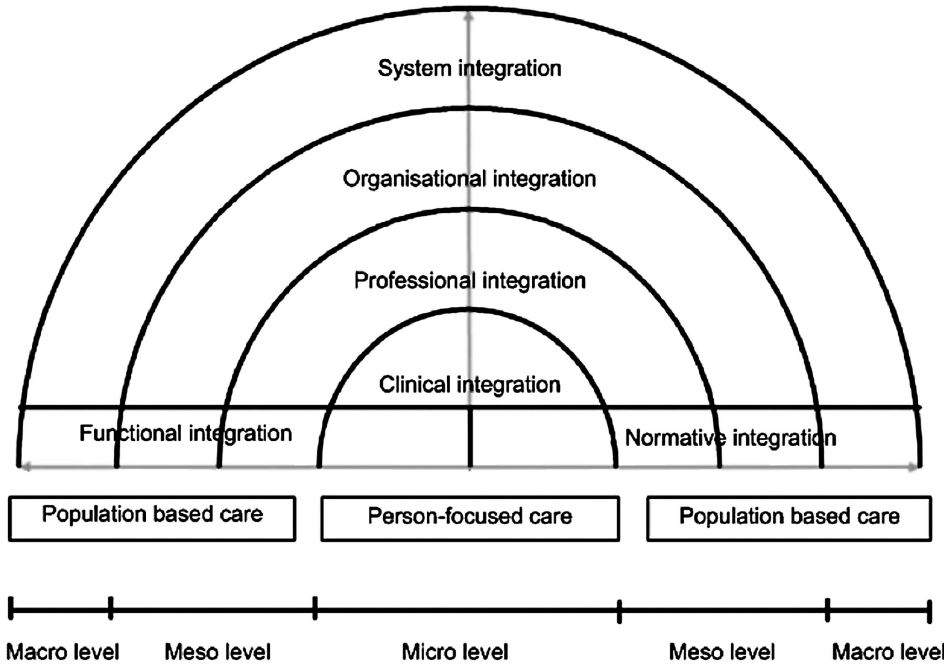

FIGURE 2
Conceptual framework for integrated care (Valentijn et al., 2013)

and barriers, to analyze and present HCCM case management standards of practice and their corresponding functions of professional integrated care and clinical integrated care.

Collating, Summarizing, and Reporting the Results

Descriptive Findings

Of the 14 studies included in the review, six were qualitative, five were quantitative, and three were mixed method. Gray literature was not included, as none of the resources met the scoping review inclusion criteria. Four studies were from Canada, three were from Sweden, two were from the United States, one study occurred in both Canada and France, one was from Ireland, one was from Italy, one was from the Netherlands, and one was from a combination of 11 European countries (Czech Republic, Denmark, Finland, France, Germany, Iceland, Italy, the Netherlands, Norway, Sweden, and the United Kingdom). All 14 studies were conducted in community home care settings.

Six studies were qualitative in nature, five studies were quantitative, and three studies used mixed-method approaches. Of the 14 studies, two were randomized control trials, and one a cluster randomized control trial, two studies used grounded theory, two were focused ethnographies, two were descriptive designs, one study was a two-phased exploratory design, one was an experimental study, one was a literature review, one was a retrospective cohort study, and one was an intervention design and evaluation study.

Ten studies focused on older adults older than 65 years with two or more chronic conditions who were receiving home care services in the community setting. Two study's samples included case managers and family caregivers as well as older adults with MCCs in the home care setting. One study's sample included primary care physicians, case managers, and geriatricians who care for older adults with MCCs in the home care setting. One study focused only on case managers who care for older adults with MCCs in the home care setting.

All 14 studies focused on case management as a care intervention within a model of care to provide integrated care for older adults with MCCs in home care settings. There were a variety of aims. Seven studies focused on evaluating the impacts of integrated home care case management for older adults with MCCs on a number of outcomes including institutional admission rates and length of stay, health and social system costs, quality and effective care, frailty and functional decline, quality of life, ability for self-management, and older adult, family caregiver and health care professional's level of interaction, collaboration, and satisfaction.

Two of the study's aims were to explore and describe the scope of peer-reviewed national and international research literature on the roles and outcomes for nurse-led case management for older adults with MCCs in the home setting. One study focused on older adults with MCC experiences of case management, whereas one study focused on case manager's every day work experiences in providing care for

older adults with MCCs. Three studies' aims were to identify the factors that influenced case managers' and health professionals' facilitators and challenges of case management practice and collaboration, and choice of case management models when providing care for older adults with MCCs in the home care setting.

Case Management Standards

All six case management standards were identified in the review data, although the standards of assessment and evaluation had the greatest representation in the data and were identified in all 14 articles (Béland et al., 2006; de Stampa et al., 2013; Golden, Tewary, Dang, & Roos, et al., 2010; Gustafsson, Kristensson, Holst, Willman, & Bohman, 2013; Hallberg & Kristensson, 2004; Hjelm, Holst, Willman, Bohman, & Kristensson, 2015; Landi et al., 2001; Lupari, Coates, Adamspon, & Crealy, 2010; Markle-Reid et al., 2013; McWilliam, Stewart, Desai, Wade, & Galajda, 2000; Onder et al., 2007; Park, Miller, Tien, Sheppard, & Bernard, 2014; Suijker et al., 2016; Vanderboom, Holland, Targonski, & Madigan, 2013). Planning was identified in 12 articles (Béland et al., 2006; de Stampa et al., 2013; Golden et al., 2010; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Markle-Reid et al., 2013; McWilliam et al., 2000; Onder et al., 2007; Park et al., 2014; Vanderboom et al., 2013), implementation in 10 articles (Béland et al., 2006; Golden et al., 2010; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; Onder et al., 2007; Park et al., 2014), and client identification and eligibility for case management in nine articles (de Stampa et al., 2013; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; Park et al., 2014; Vanderboom et al., 2013). Transition was the least-identified standard, appearing in only three articles (Béland et al., 2006; Park et al., 2014; Vanderboom et al., 2013).

Professional Integrated Care Functions

All seven professional integrated care functions were identified in the review data. Collective responsibility to provide a continuous, comprehensive, and coordinated continuum of care was the most represented function being identified in all 14 articles (Béland et al., 2006; de Stampa et al., 2013; Golden et al., 2010; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; McWilliam et al., 2000; Onder et al., 2007; Park et al., 2014; Suijker et al., 2016; Vanderboom et al., 2013). Shared accountability for integration of services was identified in 13 review articles (Béland et al., 2006; de Stampa et al., 2013; Golden et al., 2010; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Markle-Reid et al., 2013; McWilliam et al., 2000; Onder et al., 2007; Park et al., 2014; Suijker et al., 2016; Vanderboom et al., 2013), followed by interprofessional partnerships in 13 articles (Béland et al., 2006; de Stampa et al., 2013; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; McWilliam et al., 2000; Onder et al., 2007; Park et al., 2014; Vanderboom et al., 2013).

Commissioning services was identified in 12 articles (Béland et al., 2006; de Stampa et al., 2013; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; McWilliam et al., 2000; Onder et al., 2007; Park et al., 2014; Vanderboom et al., 2013), intraprofessional partnerships was identified in 10 articles (Béland et al., 2006; de Stampa et al., 2013; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Markle-Reid et al., 2013; McWilliam et al., 2000; Park et al., 2014; Vanderboom et al., 2013), and shared decision-making was identified in seven articles (de Stampa et al., 2013; Golden et al., 2010; Gustafsson et al., 2013; Markle-Reid et al., 2013; Park et al., 2014; Suijker et al., 2016; Vanderboom et al., 2013). Finally, shared problem-solving was the least-identified professional integrated care function, appearing in only four articles (de Stampa et al., 2013; Markle-Reid et al., 2013; Park et al., 2014; Vanderboom et al., 2013).

Clinical Integrated Care Functions

All five clinical integrated care functions were identified in the review data. Coordination of care for clients was identified in all 14 articles (Béland et al., 2006; de Stampa et al., 2013; Golden et al., 2010; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; McWilliam et al., 2000; Onder et al., 2007; Park et al., 2014; Suijker et al., 2016; Vanderboom et al., 2013). Person-centered versus disease-centered care was identified in 11 articles (de Stampa et al., 2013; Golden et al., 2010; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Lupari et al., 2010; Markle-Reid et al., 2013; Onder et al., 2007; Park et al., 2014; Suijker et al., 2016; Vanderboom et al., 2013), as was ensuring client engagement and partnership in self- management (Golden et al., 2010; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; McWilliam et al., 2000; Park et al., 2014; Suijker et al., 2016; Vanderboom et al., 2013), and

matching services to meet client need (Béland et al., 2006; de Stampa et al., 2013; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; McWilliam et al., 2000; Onder et al., 2007; Park et al., 2014). Finally, the primary process of care delivery to clients was identified in nine articles (Béland et al., 2006; de Stampa et al., 2013; Golden et al., 2010; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Markle-Reid et al., 2013; Onder et al., 2007; Park et al., 2014).

Facilitators

All six case management standards were identified as facilitators in the data (Table 2). Assessment was identified as a facilitator in nine articles (Béland et al., 2006; Golden et al., 2010; Gustafsson et al., 2013; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; Park et al., 2014; Vanderboom et al., 2013); implementation in seven articles (Golden et al., 2010; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Markle-Reid et al., 2013; Park et al., 2014); client identification and eligibility for case management services in five articles (Gustafsson et al., 2013; Hjelm et al., 2015; Lupari et al., 2010; Park et al., 2014; Vanderboom et al., 2013); evaluation of a facilitator in five articles (Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Landi et al., 2001; Markle-Reid et al., 2013; Park et al., 2014); planning in four articles (Gustafsson et al., 2013; Hjelm et al., 2015; Landi et al., 2001; Park et al., 2014); and transition in one article (Park et al., 2014).

All professional integrated care functions were identified as facilitators in the data (Table 2). Interprofessional partnerships were identified as a facilitator in eight articles (de Stampa et al., 2013; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Onder et al., 2007; Park et al., 2014; Vanderboom et al., 2013); collective responsibility to provide a continuous, comprehensive, and coordinated continuum of care in eight articles (Béland et al., 2006; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; Park et al., 2014; Vanderboom et al., 2013); intraprofessional partnerships in seven articles (Béland et al., 2006; de Stampa et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Park et al., 2014; Vanderboom et al., 2013); shared accountability for integration of services in seven articles (Béland et al., 2006; de Stampa et al., 2013; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Markle-Reid et al., 2013; Park et al., 2014; Vanderboom et al., 2013); commissioning services in seven articles (Béland et al., 2006; de Stampa et al., 2013; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Lupari et al., 2010; Park et al., 2014); shared decision-making in five articles (de Stampa et al., 2013; Golden et al., 2010; Markle-Reid et al., 2013; Park et al., 2014; Vanderboom et al., 2013); and shared problem-solving in four articles (de Stampa et al., 2013; Markle-Reid et al., 2013; Park et al., 2014; Vanderboom et al., 2013).

All clinical integrated care functions were identified as a facilitator in the data. The primary process of care delivery was identified as a facilitator in five articles (Béland et al., 2006; Golden et al., 2010; de Stampa et al., 2013; Hallberg & Kristensson, 2004; Park et al., 2014); person-centered versus disease-centered care in five articles (de Stampa et al., 2013; Gustafsson et al., 2013; Hjelm et al., 2015; Lupari et al., 2010; Park et al., 2014; Vanderboom et al., 2013); matching services to meet client need in six articles (Béland et al., 2006; de Stampa et al., 2013; Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Park et al., 2014); coordination of care for clients in seven articles (Béland et al., 2006; de Stampa et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Park et al., 2014); and ensuring client engagement and partnership in self-management in nine articles (Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015; Landi et al., 2001; Lupari et al., 2010; Markle-Reid et al., 2013; McWilliam et al., 2000; Park et al., 2014; Vanderboom et al., 2013).

Barriers

Four case management standards were also identified as barriers in the data (Table 2). Client identification and eligibility for case management services was identified as a barrier in three articles (Gustafsson et al., 2013; Hallberg & Kristensson, 2004; Hjelm et al., 2015), assessment in three articles (Béland et al., 2006; Golden et al., 2010; Gustafsson et al., 2013), planning in two articles (Golden et al., 2010; Hallberg & Kristensson, 2004), and evaluation in one article (Gustafsson et al., 2013). The case management standards of implementation and transition were not identified as barriers in any of the review articles.

All professional integrated care functions were also identified as barriers in the data (Table 2). Interprofessional partnerships (Béland et al., 2006; de Stampa et al., 2013; Park et al., 2014; Suijker et al., 2016; Vanderboom et al., 2013); collective responsibility to provide a continuous, comprehensive, and coordinated continuum of care (Béland et al., 2006; de Stampa et al., 2013; Gustafsson et al., 2013; Lupari et al., 2010; Onder et al., 2007); and shared accountability for integration of services (Béland et al., 2006; de Stampa et al., 2013; Gustafsson et al., 2013; Park

TABLE 2
Facilitators and Barriers: Case Management Standards and Professional and Clinical Integrated Care Functions

	McWilliam et al. (2000)	Landi et al. (2001)	Hallberg and Kristensson (2004)	Béland (2006)	Onder et al. (2007)	Golden et al. (2010)	Lupari et al. (2010)	de Stampa et al. (2013)	Markle-Reid et al. (2013)	Vanderboom et al. (2013)	Park et al. (2014)	Gustafsson et al. (2013)	Hjelm et al. (2015)	Suijker et al. (2016)
Case managements standards														
Client identification and eligibility for case management services		x	x Barrier			x	x Facilitator	x	x	x Facilitator	x Facilitator	x Barrier and facilitator	x Barrier and facilitator	
Assessment	x	x Facilitator	x	x Barrier and facilitator	x	x Barrier and facilitator	x Facilitator	x	x Facilitator	x Facilitator	x Facilitator	x Barrier and facilitator	x Facilitator	x
Planning	x	x Facilitator	x Barrier	x	x	x Barrier		x	x Facilitator	x Facilitator	x Facilitator	x Facilitator	x	x
Implementation		x Facilitator	x Facilitator	x	x	x Facilitator	x	x	x Facilitator		x Facilitator	x Facilitator	x Facilitator	
Evaluation	x	x Facilitator	x Facilitator	x	x	x	x	x	x Facilitator	x	x Facilitator	x Barrier and facilitator	x	x
Transition				x						x	x Facilitator			
Mesolevel or professional integration														
Partnerships between professionals within (intra) organizations	x	x Facilitator	x Facilitator	x Facilitator				x Facilitator	x	x Barrier and facilitator	x Facilitator	x	x Facilitator	x
Partnerships between professionals between (inter-) organizations	x	x Facilitator	x	x Barrier	x Facilitator		Facilitator	x Barrier and facilitator	x Facilitator	x Barrier and facilitator	x Barrier and facilitator	x	x	x Barrier and facilitator

(*continues*)

TABLE 2
Facilitators and Barriers: Case Management Standards and Professional and Clinical Integrated Care Functions (*Continued*)

	McWilliam et al. (2000)	Landi et al. (2001)	Hallberg and Kristensson (2004)	Béland (2006)	Onder et al. (2007)	Golden et al. (2010)	Lupari et al. (2010)	de Stampa et al. (2013)	Markle-Reid et al. (2013)	Vanderboom et al. (2013)	Park et al. (2014)	Gustafsson et al. (2013)	Hjelm et al. (2015)	Suijker et al. (2016)
Collective responsibility to provide a continuous, comprehensive, and coordinated continuum of care	x	x Facilitator	x Facilitator	x Barrier and facilitator	x Barrier	x	x Barrier and facilitator	x Barrier	x Facilitator	x Facilitator	x Facilitator	x Barrier and facilitator	x	x
Shared accountability for integration of services	x		x Facilitator	x Barrier and facilitator	x	x		x Barrier and facilitator		x Barrier and facilitator	x Barrier and facilitator	x Barrier and facilitator	x	x
Commissioning services	x	x	x Facilitator	x Facilitator	x		x Barrier and facilitator	x Facilitator	x	x	x Facilitator	x Facilitator	x Facilitator	
Shared problem-solving								x Barrier and facilitator	x Facilitator	x Facilitator	x Facilitator			
Shared decision-making						x Facilitator		x Barrier and facilitator	x Facilitator	x Facilitator	x Facilitator	x		x
Microlevel or clinical integration														
Primary process of care delivery to individual patients			x Facilitator	x Facilitator	x	x Facilitator		x Facilitator	x		x Facilitator		x	x
Person centered vs. disease centered		x	x		x	x	x Barrier	x Facilitator	x	x Facilitator	x Facilitator	x Facilitator	x Facilitator	x
Matching services to meet client need	x	x	x Barrier and facilitator	x Facilitator	x		x	Facilitator	x		x Facilitator	x Facilitator	x Facilitator	x

(*continues*)

TABLE 2
Facilitators and Barriers: Case Management Standards and Professional and Clinical Integrated Care Functions (*Continued*)

	McWilliam et al. (2000)	Landi et al. (2001)	Hallberg and Kristensson (2004)	Béland (2006)	Onder et al. (2007)	Golden et al. (2010)	Lupari et al. (2010)	de Stampa et al. (2013)	Markle-Reid et al. (2013)	Vanderboom et al. (2013)	Park et al. (2014)	Gustafsson et al. (2013)	Hjelm et al. (2015)	Suijker et al. (2016)
Coordination of care for client	x	x Facilitator	x Facilitator	x Facilitator	x	x	Facilitator	x Barrier and facilitator	x Facilitator	x	x Facilitator	x	x Facilitator	x
Ensuring client engagement and partnership in developing plan of care and decision-making coordination of care and self-management	x Facilitator	x Facilitator	x Facilitator			x	x Facilitator		x Facilitator	x Facilitator	x Barrier and facilitator	x Barrier and facilitator	x Facilitator	x

et al., 2014; Vanderboom et al., 2013) were each identified as barriers in five articles. However, intra-professional partnerships (Vanderboom et al., 2013), commissioning services (Lupari et al., 2010), shared problem-solving (de Stampa et al., 2013), and shared decision-making (de Stampa et al., 2013) were each identified as barriers in one article.

Four clinical integrated care functions were also identified as barriers in the data. Ensuring client engagement and partnership in self-management was identified as a barrier in two articles (Gustafsson et al., 2013; Park et al., 2014). However, person-centered versus disease-centered care (Lupari et al., 2010), matching services to meet client need (Hallberg & Kristensson, 2004), and coordination of care for clients (de Stampa et al., 2013) were each identified as barriers in one article. The clinical integrated care function of the primary process of care delivery was not identified as a barrier in any of the review articles.

Analytic Findings

Case Management Standards and Integrated Care Functions

We found that all six case management standards of practice were reflected through HCCM provision of integrated care. HCCMs used seven professional integrated care (meso) functions and five clinical integrated care (micro) functions for older adults with MCCs in the home setting (Tables 3 and 4).

However, on closer examination, only five professional integrated care functions were represented in all six case management standards. Shared problem-solving and shared decision-making were not represented in the two case management standards of client identification and eligibility for case management and transition. Also, four of the clinical integrated care functions were represented in all six case management standards, with primary care delivery not represented in the same two case management standards, client identification and eligibility for case management and transition.

HCCMs were able to provide all identified functions of professional and clinical integrated care to older adults with MCCs while carrying out the case management standards of assessing, planning, implementing, and evaluating their clients and their care. However, not all professional and clinical integrated care functions were represented in the standards of client identification and eligibility for case management or transition.

The representation of professional integrated care and clinical integrated care functions with corresponding case management standards revealed that relationships exist among case management standards and all integrated care functions. Overall, the professional and clinical integrated care functions were most represented in the assessment component

TABLE 3
Case Management Standards and Professional Integrated Care Functions

Professional Integrated Care Functions	Identify Client	Assessment	Planning	Implementation	Evaluation	Transition
Collective responsibility to provide continuum of care	de Stampa et al. (2013); Gustafsson et al. (2013); Markle-Reid et al. (2013)	Béland et al. (2006); de Stampa et al. (2013); Hallberg and Kristensson (2004); Markle-Reid et al. (2013); McWilliam et al. (2000); Park et al. (2014)	Béland et al. (2006); de Stampa et al. (2013); Landi et al. (2001); Gustafsson et al. (2013); Markle-Reid et al. (2013); McWilliam et al. (2000)	Hjelm et al. (2015); Landi et al. (2001); Markle-Reid et al. (2013); Park et al. (2014)	Béland et al. (2006); Hallberg and Kristensson (2004); Markle-Reid et al. (2013); Park et al. (2014)	Béland et al. (2006); Park et al. (2014)
Interprofessional partnerships	de Stampa et al. (2013); Vanderboom et al. (2013)	de Stampa et al. (2013); Gustafsson et al. (2013); Hallberg and Kristensson (2004); Markle-Reid et al. (2013); McWilliam et al. (2000); Park et al. (2014); Suijker et al. (2016)	Landi et al. (2001); McWilliam et al. (2000); Markle-Reid et al. (2013); Park et al. (2014); Gustafsson et al. (2013)	Landi et al. (2001); Markle-Reid et al. (2013); Park et al. (2014)	McWilliam et al. (2000); Markle-Reid et al. (2013); Park et al. (2014); Suijker et al. (2016)	Park et al. (2014)
Shared accountability for integration of services	Landi et al. (2001); Markle-Reid et al. (2013); Park et al. (2014)	Hallberg and Kristensson (2004); Landi et al. (2001); Markle-Reid et al. (2013); Park et al. (2014)	Béland et al. (2006); de Stampa et al. (2013); Gustafsson et al. (2013); Landi et al. (2001); Markle-Reid et al. (2013); Vanderboom et al. (2013)	Hallberg and Kristensson (2004); Landi et al. (2001); Markle-Reid et al. (2013); Park et al. (2014)	Béland et al. (2006); Hallberg and Kristensson (2004); Markle-Reid et al. (2013); Vanderboom et al. (2013); Park et al. (2014)	Béland et al. (2006); Park et al. (2014)
Intraprofessional partnerships	Park et al. (2014); Vanderboom et al. (2013)	Hallberg and Kristensson (2004); Hjelm et al. (2015); Markle-Reid et al. (2013); McWilliam et al. (2000); Park et al. (2014); Vanderboom et al. (2013)	de Stampa et al. (2013); Gustafsson et al. (2013); Hjelm et al. (2015); Landi et al. (2001); Markle-Reid et al. (2013); McWilliam et al. (2000); Vanderboom et al. (2013)	Hallberg and Kristensson (2004); Hjelm et al. (2015); Landi et al. (2001); Markle-Reid et al. (2013); Park et al. (2014)	Hallberg and Kristensson (2004); de Stampa et al. (2013); Hjelm et al. (2015); Markle-Reid et al. (2013); McWilliam et al. (2000); Park et al. (2014)	Park et al. (2014)
Commissioning services	Landi et al. (2001)	Gustafsson et al. (2013); Hallberg and Kristensson (2004); Hjelm et al. (2015); Landi et al. (2001); Markle-Reid et al. (2013); McWilliam et al. (2000); Onder et al. (2007); Park et al. (2014); Vanderboom et al. (2013)	Hallberg and Kristensson (2004); Hjelm et al. (2015); Markle-Reid et al. (2011); McWilliam et al. (2000); Landi et al. (2001); Onder et al. (2007)	Landi et al. (2001); Markle-Reid et al. (2013); McWilliam et al. (2000); Onder et al. (2007); Park et al. (2014)	Halberg and Kristensson (2004); Hjelm et al. (2015); Markle-Reid et al. (2013); McWilliam et al. (2000); Onder et al. (2007); Park et al. (2014)	Park et al. (2014)
Shared problem-solving		de Stampa et al. (2013); Markle-Reid et al. (2013); Vanderboom et al. (2013)	de Stampa et al. (2013); Markle-Reid et al. (2013); Vanderboom et al. (2013)	Markle-Reid et al. (2013)	de Stampa et al. (2013); Markle-Reid et al. (2013)	
Shared decision-making		de Stampa et al. (2013); Markle-Reid et al. (2013); Vanderboom et al. (2013)	de Stampa et al. (2013); Gustafsson et al. (2013); Markle-Reid et al. (2013); Park et al. (2014); Vanderboom et al. (2013)	Markle-Reid et al. (2013)	de Stampa et al. (2013); Park et al. (2014); Suijker et al. (2016)	

TABLE 4
Case Management Standards and Clinical Integrated Care Functions

Clinical Integrated Care Functions	Identify Client	Assessment	Planning	Implementation	Evaluation	Transition
Coordination of care for client	de Stampa et al. (2013); Hallberg and Kristensson (2004); Landi et al. (2001); Park et al. (2014)	de Stampa et al. (2013); Golden et al. (2010); Gustafsson et al. (2013); Hallberg and Kristensson (2004); Hjelm et al. (2015); Landi et al. (2001); Lupari et al. (2010); McWilliam et al. (2000); Onder et al. (2007); Park et al. (2014); Suijker et al. (2016); Vanderboom et al. (2013)	Béland et al. (2006); Gustafsson et al. (2013); Hallberg and Kristensson (2004); Hjelm et al. (2015); Landi et al. (2001); McWilliam et al. (2000); Park et al. (2014)	Béland et al. (2006); Golden et al. (2010); Gustafsson et al. (2015); Hallberg and Kristensson (2004); Hjelm et al. (2015); Landi et al. (2001); Lupari et al. (2010); Markle-Reid et al. (2013); Park et al. (2014)	Béland et al. (2006); de Stampa et al. (2013); Hallberg and Kristensson (2004); Hjelm et al. (2015); Lupari et al. (2010); McWilliam et al. (2000); Onder et al. (2007); Park et al. (2014)	Béland et al. (2006); Park et al. (2014)
Matching services to meet client need	Hallberg and Kristensson (2004); Landi et al. (2001)	Hallberg and Kristensson (2004); Hjelm et al. (2015); Lupari et al. (2010); Markle-Reid et al. (2013); McWilliam et al. (2000); Park et al. (2014)	Béland et al. (2006); de Stampa et al. (2013); Hallberg and Kristensson (2004); Markle-Reid et al. (2013)McWilliam et al. (2000)	Béland et al. (2006); Gustafsson et al. (2013); Lupari et al. (2010); Park et al. (2014)	Gustafsson et al. (2013); Hallberg and Kristensson (2004); Hjelm et al. (2015); Lupari et al. (2010); McWilliam et al. (2000); Park et al. (2014)	Béland et al. (2006); Park et al. (2014)
Client engagement and participation	Markle-Reid et al. (2013)	Gustaffson (2015); Hallberg and Kristensson (2004); Hjelm et al. (2015); Markle-Reid et al. (2013); McWilliam et al. (2000); Park et al. (2014); Vanderboom et al. (2013)	Gustafsson et al. (2013); Landi et al. (2001); Markle-Reid et al. (2013); Vanderboom et al. (2013)	Golden et al. (2010); Gustafsson et al. (2013); Hallberg and Kristensson (2004); Hjelm et al. (2015); Landi et al. (2001); Markle-Reid et al. (2013); Park et al. (2014)	Golden et al. (2010); Gustafsson et al. (2013); Hallberg and Kristensson (2004); Hjelm et al. (2015); Markle-Reid et al. (2013) Park et al. (2014); Vanderboom et al. (2013)	Park et al. (2014)
Person-centered care vs. disease-centered care	Gustafsson et al. (2013)	de Stampa et al. (2013); Gustafsson et al. (2013); Hjelm et al. (2015); Markle-Reid et al. (2013); Onder et al. (2007); Park et al. (2014); Suijker et al. (2016)	de Stampa et al. (2013); Hjelm et al. (2015); Markle-Reid et al. (2013); Vanderboom et al. (2013)	Gustafsson et al. (2013); Hjelm et al. (2015); Markle-Reid et al. (2013); Park et al. (2014)	Gustafsson et al. (2013); Hjelm et al. (2015); Markle-Reid et al. (2013); Park et al. (2014); Vanderboom et al. (2013)	Park et al. (2014)
Primary care delivery		de Stampa et al. (2013); Golden et al. (2010); Hallberg and Kristensson (2004); Hjelm et al. (2015); Markle-Reid et al. (2013)	Hallberg and Kristensson (2004); Hjelm et al. (2015); Park et al. (2014)	Golden et al. (2010); Hallberg and Kristensson (2004); Hjelm et al. (2015); Markle-Reid et al. (2013)	Béland et al. (2006); Hallberg and Kristensson (2004); Hjelm et al. (2015); Park et al. (2014)	

of case management standards. These included the professional integrated care functions of interprofessional partnerships and commissioning services and clinical integrated care functions of coordination of care for clients, client engagement, and participation in self-management. Person-centered versus disease-centered care were also represented within case management assessment.

Professional and clinical integrated care functions were equally represented in the standards planning, implementation, and evaluation. However, the clinical integrated care function of coordination of care was the most represented of all integrated care functions in these three standards. Client engagement and participation in self-management and person-centered care versus disease-centered care were most represented in the standard implementation, and person-centered care versus disease-centered care was most represented in evaluation.

Professional integrated care functions of shared problem-solving, shared decision-making, and clinical integrated care functions of primary care delivery were the least represented in the standards of identification of clients and eligibility for case management and transition. These findings align with the identification that only five of the seven professional integrated care functions and four of the five clinical integrated care functions were associated with all six case management standards.

Facilitators and Barriers

Deductive analysis demonstrated that all case management standards, professional integrated care functions, and clinical integrated care functions were identified as either a facilitator and/or a barrier in the review data (Table 2). All case management standards, professional integrated care, and clinical integrated care functions were more likely to be identified as facilitators rather than barriers to HCCM care of older adults with MCCs. Indeed, two case management standards, implementation and transition, and one clinical integrated care function, primary process of care delivery, were solely identified as facilitators in the data.

We found variations when case management standards, professional integrated care, and clinical integrated care functions were identified as a facilitator or a barrier was noted. The case management standards most frequently identified as a facilitator included assessment, planning, and implementation. Within professional integrated care functions, intraprofessional partnerships, interprofessional partnerships, collective responsibility to provide continuum of care, and shared accountability for integration of services were most frequently identified as a facilitator. Finally, within clinical integrated care functions, person-centered versus disease-centered care, coordination of care for clients, and ensuring engagement and partnership in self-management were most frequently identified as a facilitator.

All case management standards, professional integrated care, and clinical integrated care functions were more likely to be identified as facilitators rather than barriers to HCCM care of older adults with MCCs.

Other than implementation, transition, and primary process of care delivery, all case management standards and professional integrated care and clinical integrated care functions were identified as barriers in the data. Specifically, the professional integrated care functions of interprofessional partnerships and shared accountability for integration of services were most frequently identified as a barrier. However, as previously stated, both of these functions were more likely to be identified as a facilitator for HCCM integrated care of older adults with MCCs in the home setting.

Discussion

The Case Management Standards of Practice (NCMN, 2009) and the Conceptual Framework for Integrated Care (Valentijn et al., 2013) were useful frameworks to examine how HCCMs provide integrated care to older adults with MCCs, and three salient issues came to light. These include the HCCM ability to provide professional and clinical integrated care to older adults with MCCs, an understanding that case management standards and integrated care functions, according to the Conceptual Framework for Integrated Care (Valentijn et al., 2013), may be either a facilitator or barrier to HCCM delivery of care, and the need for a new conceptual framework to guide HCCM and integrated care practice.

HCCMs' Provision of Integrated Care

Our findings demonstrated a number of ways that HCCM case management practice corresponded with Valentijn et al.'s (2013) professional and clinical integrated care functions.

Although HCCM work includes integrated care functions at both the professional and clinical levels, there was a more of an emphasis on clinical integrated care functions. For example, HCCM coordination of client care, client engagement activities, and provision of person-centered care were more likely to

occur when the HCCM was carrying out the case management standards of planning, implementing, and evaluating client care. This demonstrates that when HCCMs carry out professional and/or clinical integrated care functions, these may vary depending on the specific case management activity they are performing.

Another interesting finding was that the case management standards of identification of client and eligibility for case management and transition were the least discussed and described in the data. An examination of the role of the HCCM in identifying the client and screening them for eligibility for case management services demonstrates that this is the first step in establishing an appropriate case management service relationship. An assessment determines the initial needs of the client, and the needs are matched against the eligibility criteria of the case management service provided (NCMN, 2009). In their literature review, Reilly et al. (2010) reported great variation in how HCCMs carried out the standards of client identification and eligibility for case management services and transition for their clients. They reported that in order to identify clients, HCCMs used data such as recent hospitalization or a history of previous admissions, functional impairment assessments to identify frail adults at risk for extended hospitalization or long-term care admission, and direct referrals for case management. HCCMs adopted these inconsistent identification methods based on the available information systems of health services, although fragmented, rather than on client need.

With transitions in care, the role of the HCCM is to lead a process that supports a shift in the interventions in order to meet a client's goals of care or discharge them. This can often mean a move to an alternate care setting. When/if this occurs, there is an adjustment of the therapeutic relationship between the client and the HCCM. In some cases, the relationship may conclude with client goals achieved, or with goals unfulfilled (NCMN, 2009). Reilly et al. (2010) also found case management transition procedures to be inconsistent, with a lack of standardization between case management programs and services. They found that case management duration in the study ranged from no time limitation for services to a span of 6 months to a year and were based on availability of funding or if the client's health improved to the point that case management would no longer be needed.

Facilitators and Barriers of HCCM Provision of Integrated Care

Our findings demonstrated that case management standards, professional and clinical integrated care functions, were often identified as both facilitators and barriers for HCCM care of older adults with MCCs, but were more likely to be identified as facilitators. Threapleton et al. (2017) identified that facilitators for integrated care practice with older populations included shared values and understanding between health care professionals, time for communication and relationship-building professional partnerships within and between organizations, shared problem-solving and decision-making, health care professional and client engagement, and clear, open communication with clients about their integrated care goals. These facilitators are consistent with our findings. Professional and clinical integrated care functions such as intraprofessional partnerships, interprofessional partnerships, collective responsibility to provide continuum of care, shared accountability for integration of services, person-centered versus disease-centered care, and ensuring engagement and partnership in self-management were identified as facilitators for case management and integrated care practice in our review. These facilitators can be described as essential mechanisms to achieve normative integration (Valentijn et al., 2013). Normative integration is significant, as it supports strategies for coordination of client care through health care professionals' shared values and common goals of collaboration and partnership development to achieve patient-centered care (Valentijn et al., 2013).

Our findings demonstrated that case management standards, professional and clinical integrated care functions, were often identified as both facilitators and barriers for HCCM care of older adults with MCCs, but were more likely to be identified as facilitators.

Barriers to integrated care for older populations were reported as lack of shared values or disagreements over the goals or benefits of integrated care interventions between interdisciplinary staff and lack of clarity in health care professionals' roles and responsibilities (Threapleton et al., 2017). These barriers are also consistent with our findings, whereby interprofessional partnerships and shared accountability for integration of services were the professional integrated care functions most likely to be identified as barriers. This is problematic, as the development of intra- and interprofessional partnerships and collaboration is key normative integration mechanisms to effectively coordinate client care within and across care settings (Valentijn et al., 2013).

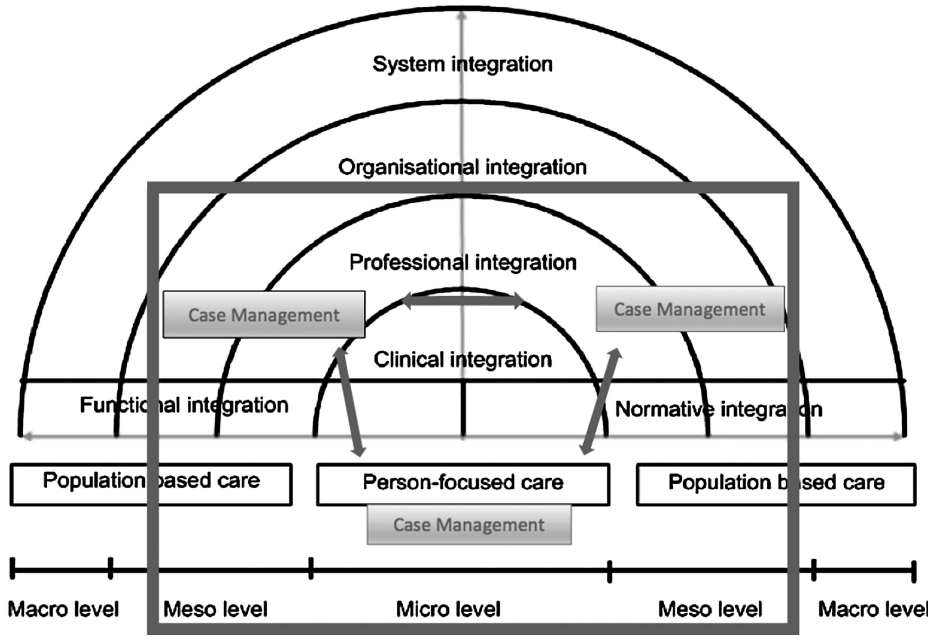

FIGURE 3
Conceptual framework for integrated care and home care case management.

Integrated Care and Case Management Framework

Our findings demonstrate a need for the development of a theoretical framework to support HCCMs' ability to provide integrated care of older adults with MCCs. A promising start could be working with the concepts of Case Management Standards of Practice (NCMN, 2009) and Valentijn et al.'s (2013) Conceptual Framework of Integrated Care. Our initial review of Valentijn et al.'s framework revealed that case management standards of practice (NCMN, 2009) was not represented within system integrated care (macro) or the organizational integrated care (meso) levels. This is reasonable to expect given the vast majority of an HCCM work occurs at the professional and clinical integrated care levels, where the HCCM, client, and intra- and interdisciplinary professionals interact to provide person-centered care.

The system (macro) and organizational (meso) levels in Valentijn et al.'s (2013) framework focus on functions of integrated care that support broader health systems and organizations to achieve population health. These higher levels of integrated care are key to creating and maintaining health system and organizational environments that support and promote HCCM provision of integrated care. Combined, all levels of Valentijn et al.'s framework (micro, meso, and macro) impact person-centered and population health approaches to integrated care.

Recommendations for the development and application of a framework for integrated care by HCCMs should include the case management standards of practice, professional integrated care (meso), and clinical integrated care (micro) levels where HCCMs are most likely to function (Figure 3). To address practice and policy issues, the framework should include accompanying evidence-based practice guidelines, as well as provide direction for policies that promote functional and normative integration in the development of case management and integrated care programs. We propose that these framework elements will assist HCCMs in the provision of person-focused integrated care to promote consistency across all case management standards. This would promote role clarity of HCCMs with interdisciplinary health professionals and foster shared values for collaboration and sustainability of partnerships across sectors and between HCCMs, interdisciplinary health care professionals, and clients.

Implications for HCCM Practice, Policy, and Research

Practice

Questions arise from our findings about whether the work of HCCMs in the case management standards of identification of the client and eligibility for case management and transition are simply not consistently described in the literature, or whether there are variations in HCCM practice HCCM that impact the delivery of case management standards when caring for older adults with MCCs. If it is the latter, this has implications for the comprehensiveness and consistency of HCCM practice, as well as interdisciplinary health professional and clients' awareness of the

Recommendations for the development and application of a framework for integrated care by HCCMs should include the case management standards of practice, professional integrated care (meso), and clinical integrated care (micro) levels where HCCMs are most likely to function. To address practice and policy issues, the framework should include accompanying evidence based practice guidelines, as well as, provide direction for policies that promote functional and normative integration in the development of case management and integrated care programs.

HCCM role when providing integrated care to older adults with MCCs within home settings.

The lack of consistency in HCCM practice could be mitigated with development of evidence-based practice guidelines for HCCM integrated care in the provision of case management for older adults with MCCs. The design of HCCM practice guidelines requires participation and input from HCCMs and would need to combine case management standards with functions of integrated care to provide a foundation for and assist in standardizing HCCM practice (Joo & Huber, 2017). These guidelines could also add to role clarity and increased awareness of HCCM scope of practice for clients, family caregivers, and interdisciplinary health care professionals within the home care setting and broader health system (Reilly et al., 2010).

Policy

Our findings suggest that the greatest facilitators and barriers to integrated care are those case management standards and clinical and professional integrated care functions that focus on partnerships, collective and shared responsibility and accountability, coordinated person-centered care for clients, and ensuring engagement and partnership in self-management. This indicates the need for development of case management policies and programs that support the work of HCCMs in the delivery of seamless and collaborative case management and integrated care functions that foster collaboration and partnership-building efforts (Kodner & Spreeuwenberg, 2002).

Early policies that targeted integrated care program efforts narrowly focused on the functional redesign of health care structures between intersectoral settings, central administration and implementation strategies, such as shared electronic medical records. These policies targeted system and organizational changes and were often imposed upon interdisciplinary health care professionals in a top-down approach. These failed to demonstrate improved integrated care outcomes (Burns et al., 2001; Goodwin, 2016), reinforcing that functional integration, which includes how health systems are formally organized and structured, alone are insufficient for integrating services and client care (Janse, Huijsman, de Kuyper, & Fabbricotti, 2016; Valentijn et al., 2013; Wollscheid, Eriksen, & Hallvik, 2013).

In addition to functional integration, current integrated care research is exploring the mechanisms and impacts of normative integration (Valentijn et al., 2013). Normative integration is less tangible than functional integration and includes coordination mechanisms based on shared values, culture, and goals across and between interdisciplinary health care professionals and organizations toward patient-centered care, teamwork, and communication efforts. Normative integration is an essential ingredient to foster interdisciplinary and intersectoral collaboration to promote consistency between all the levels of an integrated system. To a large extent, integration in general is shaped by and based on professional behavior and attitudes (Valentijn et al., 2013).

We posit that the development and implementation of case management and health care policies inclusive of functional and normative integration strategies and mechanisms would foster collaboration and the sustainability of partnerships between HCCMs, clients, and other health care professionals to achieve shared responsibility and accountability for integrated care of clients, and that focus on coordinated patient-centered care to engage the clients in developing their knowledge and capacity for self-management and care, when working across a variety of care settings.

Research

Research implications for these findings include the need to test and evaluate this framework to ensure reliability and validity for advanced intervention research and development to measure and advance case management and integrated care practice by HCCMs and in a variety of care settings. Joo and Huber (2017) explain that well-designed research studies are required to inform the development of appropriate and effective frameworks by exploring the components of case management and integrated care interventions alongside estimating clinical effectiveness in a variety of settings and populations (Joo & Huber, 2017).

Strandberg-Larsen and Krasnik (2009) completed a systematic review to identify the different types of methods used to measure integrated health care delivery in health systems, with emphasis on structural, cultural, and process aspects. They found that only five of the 24 measurement methods shared a theoretical framework, leading to a large variety of concepts being measured. They concluded that without a guiding theoretical framework, significant conceptual diversity occurred, leading to the majority of methods lacking in validity and reliability for measuring integrated care.

Janse et al. (2016) engaged health care professionals in primary care practices and home care organizations to implement an integrated care intervention specifically targeting frail elderly patients. The study aimed to measure integration processes in the delivery of integrated care as perceived by professionals. They adopted Donabedian's model of quality assessments as their theoretical framework, as it had been proven to be useful in previous evaluations of integration. Their instrument included existing measures of integration key indicators similar to Valentijn et al.'s (2013) functional and normative integration. This proved to be a reliable measure of integration from the professional perspective, consisting of empirically and theoretically consistent scales, and may contribute to the development and refinement of integrated care frameworks (Janse et al., 2016).

Developing a reliable and valid framework using Case Management Standards of Practice (NCMN, 2009) and Valentijn's (2013) Conceptual Model of Integrated Care would assist in the development, implementation, and evaluation of HCCM practice, policies, and future research to explore case management and integrated care models that can better support HCCMs in the provision of case management and integrated care to older adults with MCCs in the home setting.

Limitations

There are some limitations to our scoping review. In keeping with current standard practices of scoping reviews (Arksey & O'Mally, 2005), the quality of research evidence included in our review was not appraised. This could potentially increase bias in our results, as the research literature is limited in its rigor. In addition, our scoping review did not address the issue of "synthesis," or the weight of evidence in favor of the effectiveness of case management standards and integrated care functions. Although these limitations are present, our scoping review provided a descriptive and analytic account of the available research in our area of study and supported our ability to suggest important practice, policy, and research recommendations for HCCMs and integrated care of older adults with MCCs in the home care setting.

Conclusion

This study is the first scoping review that broadly examined both case management and integrated care to determine how HCCMs provide, or do not provide, integrated care to older adults with MCCs in home care. Case management standards of practice and integrated care are each complex phenomenon. Through our scoping review, we have shown that HCCM work of providing case management (assessment, planning, evaluation, etc.) and integrated care functions (inter- and intraprofessional partnerships, shared accountability, client engagement and participation for self-care, hands-on primary care delivery, etc.) closely correspond and are often interdependent.

We have also identified that HCCMs most frequently use the case management standards of practice of assessment, planning, implementation, and evaluation to provide all professional integrated care (meso) and clinical integrated care (micro) functions in their care of older adults with MCCs in the home setting. We posit that the development of evidence-based HCCM practice guidelines combining case management standards and professional integrated care and clinical integrated care functions would be foundational to provide consistent integrated care functions across all case management standards.

Our review also demonstrated that although case management standards and professional and clinical integrated care functions are more frequently identified as facilitators for integrated care, different factors may influence whether they act as facilitators and/or barriers for HCCM provision of integrated care of older adults with MCCs. Policies and programs inclusive of both functional and normative integration strategies should be developed to foster collaboration and the sustainability of partnerships between HCCMs, clients, and other health care professionals to achieve shared responsibility and accountability for integrated care for older adults with MCCs across care settings.

Finally, the development and testing of a theoretical framework inclusive of case management standards of practice (NCMN, 2009) and their corresponding professional (meso) and clinical integrated care (micro) functions of the Conceptual Model of Integrated Care (Valentijn et al., 2013) would enhance HCCM practice, policy development, and future research in this area. Understanding how HCCMs provide integrated care could potentially reduce fragmented care, improve care quality, introduce cost savings, and enhance the delivery of person-focused care to older adults with MCCs in the home setting.

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