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Exploring the roles, functions, and background of patient navigators and case managers: A scoping review

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ABSTRACT

Background: Patient navigators and case managers are health care workers who aim to provide individualized assistance to patients facing significant health concerns. Although these roles emerged from distinct historical need, the terms are often used interchangeably in the literature and are described to have overlapping functions. Differences in the way that these roles are conceptualized across countries has led to a lack of clarity regarding the exact functions that each offer to patients, caregivers, and the health care system.
Objectives: To differentiate the functions and backgrounds of patient navigators and case managers across settings and disease contexts.
Design: This review was guided based on the PRISMA extension for scoping reviews using a five-step review process: identify the research questions; search and identify relevant studies; select studies based on a priori criterion; chart the data; and collate, summarize and report the results.
Data sources: A search of the literature was undertaken in peer-reviewed databases (Medline, CINAHL, and PubMed) and the grey literature (Google and unpublished articles in online repositories).
Review methods: Extracted data included information on patient navigators and/or case managers related to their reported background, training, and/or knowledge; roles and/or specific functions; clinical setting; and targeted condition or disease type.
Results: The search strategy resulted in 10,523 articles. After applying the eligibility criteria during title and abstract evaluation, 468 full-text articles were reviewed, resulting in a total of 160 articles. Functions of patient navigators and case managers were organized into nine emerging categories: (1) advocacy; (2) care coordination; (3) case monitoring and patient needs assessment; (4) community engagement; (5) education; (6) administration and research activities; (7) psychosocial support; (8) navigation of services; and (9) reduction of barriers. The background and knowledge areas of each role were compared and contrasted, and three categories related to the practice context of each role were identified: (1) typical setting and care trajectory; (2) target patient population; and (3) mode of service delivery.
Conclusions: The current study identified important differences in the functions between patient navigators and case managers. However, there remains significant ambiguity between the functions of these two roles. Standardized definitions detailing scope of practice, and allowing for inherent flexibility across different settings, are needed to improve service delivery.

What is already known about the topic?

- Patient navigators and case managers are health care workers who provide individualized assistance to patients and their caregivers across diverse settings, conditions, and populations.
- Patient navigators may be individuals with or without clinical expertise (e.g. nurses or individuals with lived experience), whereas case managers are usually professionals (e.g. nurses or social workers).
- While the functions of patient navigators and case managers have been noted in the literature, differences across settings and contexts have led to role ambiguity and the inter-changeable use of these terms.

What this paper adds

- Both patient navigators and case managers provide emotional and information support to patients, however only case managers provide clinical care.

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- Patient navigators help patients navigate amongst existing services, but do not create new services; case managers can fill that gap by acting as a care provider (e.g. providing psychosocial care).
- Patient navigators currently exist primarily in the oncology care setting, whereas case management is prevalent across many health and social settings.

1. Introduction

A myriad of services, treatments and programs have led to an intricate and fragmented health care system, making it difficult for patients and their families to obtain timely care (Schoen et al., 2011). The complexity of this system has led to a rise in the popularity of roles aiming to address barriers and improve care coordination to patients facing significant health conditions and diagnoses (Salmond and Echevarria, 2017). The need for such care is evident by the rise in popularity of roles that aim to reduce barriers and improve care coordination through patient-centered initiatives. Some of these roles include case managers, patient navigators, care coordinators, care managers, health coaches, medical home care coordinators, and clinical care coordinators (Farber et al., 2002; Fillion et al., 2006; Powell, 2011). Patient navigators and case managers, in particular, have been identified as invaluable members and consultants to patient care teams across the world (Mailloux and Halesey, 2018). Although historically these roles held distinct responsibilities, the terms are now being used interchangeably in the literature and are often described to have overlapping functions between their respective roles. This has led to a lack of clarity regarding the exact functions that each offers to patients, caregivers, and the health care system. The current study seeks to delineate the distinct functions between case managers and patient navigators through the scoping review methodology. The following section outlines a brief history on the background of patient navigation and case management relative to the evolution of each role's functions.

2. Background

2.1. Definition of patient navigation and case management

The current study defines patient navigation according to its functionality for reducing physical or psychological barriers to care. Specifically, patient navigation is defined as a partnership between a patient or caregiver and a navigator (e.g. registered nurse or peer) that seeks to proactively guide patients through the healthcare continuum to facilitate timely access to care and foster self-management and autonomy through education and emotional support (Luke et al., 2018; Psooy et al., 2004; American Medical Association, 2015). Case management is defined according to the definition put forth by the Case Management Society of America (Case Management Society of America (CMSA), 2016) as "a collaborative process of assessment, planning, facilitation, care coordination, evaluation and advocacy for options and services to meet an individual's and family's comprehensive health needs through communication and available resources to promote patient safety, quality of care, and cost effective outcomes" (p.11). Both roles aim to reduce barriers to care, including geographic, cultural, socioeconomic, and organizational barriers (Esparza, 2013). Patient navigators and case managers seek to address gaps in services provided to patients, rather than duplicate existing efforts provided by other health care professionals (AIDS Coalition of Nova Scotia, 2019; Blouin et al., 1996).

2.2. Patient navigation history

Patient navigation was coined by Dr. Harold Freeman in a report to the American Cancer Society (Freeman, 1989), which led to the first patient navigation program at Harlem Hospital Center in 1990 (Freeman, 2013). This inaugural patient navigation program aimed to promote access to timely breast cancer diagnosis and treatment, by helping patients navigate through the healthcare system (Freeman, 2006). The program targeted a community surrounding Harlem Hospital, which experienced substantial financial concerns and mistrust of healthcare professionals (Meredith, 2013). The Harlem patient navigation program was implemented to promote culturally sensitive and timely access to quality cancer care for at-risk patients (Freeman, 2006). A significant improvement in survivorship rates in the area (39% pre-implementation to 70% post-implementation), led to the *Patient Navigator and Chronic Disease Prevention Act* signed into US law in 2005 (Freeman, 2013). This act ensured navigational support to patients across the United States dealing with one or more chronic disease(s) (Shockney, 2015).

Initially, these patient navigation programs were targeted at cancer patients from marginalized communities, particularly aiming to reduce barriers during the stages of screening and diagnosis (Freeman, 2013, 2006); this eventually expanded to include quality-of-life outcomes (Robinson-White et al., 2010a) and other patient populations and health conditions (Luke et al., 2018; Doolan-Noble et al., 2013). The prevalence of patient navigators in the oncology care setting has led some to speculate that patient navigators are simply case managers for the cancer setting (Fillion et al., 2012a); however this role is expanding to include patients with chronic disease (e.g. diabetes, cardio-vascular disease, kidney disease, and dementia) (McBrien et al., 2018).

Initially, navigators at Harlem Hospital were individuals with lived experience from the target patient community, who embodied cultural knowledge that reflected that population. These individuals, who continue to practice today, are known as peer or lay navigators (Freeman, 2006) and do not have clinical experience. In contrast, professional navigators are paid health care workers with a background in clinical care (e.g. registered nurse) or social work (Psooy et al., 2004; Fillion et al., 2012a). Today, patient navigation programs can involve either type of patient navigator, or be comprised of both professional and lay navigators (Meade et al., 2014). Moreover, navigators can work individually or within the context of a team (Carter et al., 2018).

There exists significant debate over how patient navigation should be defined in the literature, partly due to variations in work settings and navigator backgrounds. Definitions of a patient navigator depend on three critical components: (1) the type of navigator (e.g. professional vs. lay person), (2) clinical context (e.g. cancer), and (3) organizational setting (e.g. community vs. hospital) (Luke et al., 2018). While there is a lack of a common definition, navigation is often defined in terms of its functions.

Patient navigation typically employs an individualized, holistic approach to help patients navigate through a range of health care services (Natale-Pereira et al., 2011). Navigation is considered to be a patient-centered method of care coordination, as the decision to pursue a particular service is decided by the patient after receiving information from the navigator (American Medical Association, 2015). Patient navigation is often considered to comprise two types of interventions: (1) instrumental, involving logistical tasks (e.g. arranging transportation or facilitating care coordination); and (2) relationship-based, involving inter-personal connections and support between patient and navigators (Jean-Pierre et al., 2011; Paskett et al., 2011). Across the world, patient navigation programs are being implemented to improve health and social services

delivery, better support populations with specific needs, and improve the well-being of patients (Valaitis et al., 2017).

2.2.1. Professional and lay patient navigators

Lay patient navigators are often individuals with lived experience who possess in-depth knowledge of the care system (Gilbert et al., 2011), and are often supervised by a professional navigator (Ustjanauskas et al., 2016). Training is usually provided to lay patient navigators (Gilbert et al., 2011; Yosha et al., 2011; Shockney et al., 2013; Wang et al., 2015), even volunteers (Braun et al., 2012); however this training is not well documented or standardized in the literature (Ustjanauskas et al., 2016). In Canada, lay patient navigation training programs often involve defining scope of practice, while promoting cultural awareness and communication skills (Canadian Partnership Against Cancer, 2012). However there remains controversy regarding the necessary background and qualifications of a lay navigator (Ustjanauskas et al., 2016; McMullen, 2013).

In the United States, patient navigators are often lay persons or peers (Robinson-White et al., 2010a), in those cases, individuals with clinical experience are known as nurse navigators (Willis et al., 2013). In an attempt to delineate the functions of a navigator, Willis and colleagues (Willis et al., 2013) developed a framework in which they describe three types of patient navigators: community health workers, patient navigators, and nurse/social work navigators. The functions of each role were differentiated across 12 domains: professional roles and responsibilities; community resources; patient empowerment; communication; barriers to care/health disparities; education, prevention, and health promotion; ethics and professional conduct; cultural competency; outreach; care coordination; psychosocial support services/assessment; and advocacy. In general, community health workers were found to play a more supportive role within the community, patient navigators supported individuals at the patient-level (e.g. assisting patients in overcoming barriers to care), and nurse/social work navigators provided care through a clinical lens. This conceptualization of a patient navigator differs from literature that uses these terms interchangeably (Campbell, 2010) and describes the role of an nurse navigator as being similar, if not identical, to that of a case manager. In Canada, the role of a patient navigator is often filled by nurses or other professionals (Fillion et al., 2012a; Walkinshaw, 2011). As a result, there remains ambiguity regarding the differences in the roles and functions between professional and lay patient navigators.

2.3. Case management history

Case management arose in the early 1900s in response to a need for more integrated care across health and social services, particularly for those in vulnerable situations (e.g. low socioeconomic populations and immigrants) (Kersbergen, 1996). Throughout the mid-20th century, case managers became prevalent across multiple settings in response to the deinstitutionalization of those with severe mental illnesses (Lukersmith et al., 2016) and veterans returning home with complex injuries (Kersbergen, 1996; Veterans Affairs Canada, 2011). These case managers were nurses and social workers who addressed a need for community-based care, as a means to reduce hospital resource use and strain, while enhancing quality of life (Grube and Chernesky, 2001). Case management arose through social work and did not become part of the nursing profession until the middle of the 20th century (Schutt et al., 2017).

The term "case manager" is generally used to describe a care professional that promotes upstream approaches to health care and facilitates individualized care coordination for those with complex and chronic health conditions (Long, 2002; Randall et al., 2014); however, lack of a standardized definition has led to ambiguity (Lukersmith et al., 2016) and variations in its interpretation (Bentley, 2014). Case managers are often known to conduct patient assessments; patient identification and outreach; care planning and coordination; and service evaluation (Case Management Society of America (CMSA), 2010; Sandberg et al., 2014). The functions of a case manager depend on a number of variables, including the setting of care, health condition of the patient, and the professional background of the case manager (Lukersmith et al., 2016).

Today, case management is found across diverse settings and contexts (Huch, 2000). The case manager position is typically considered to be a specialization fulfilled only by a professional (i.e. an individual with clinical, medical, psychosocial, or rehabilitation expertise) (Baldwin and Fisher, 2005; Stanton et al., 2005). It has been argued that nurses are particularly suited to the role (White and Hall, 2006) due to their holistic, clinical background, likely explaining why most case managers are nurses with clinical expertise (Tahan and Campagna, 2010). Case management is considered to be an important opportunity for integration with social services and community-supports due to its use of its role outside of the health care sector (e.g. employment, legal, etc) (Lukersmith et al., 2016).

2.4. Comparison of patient navigation and case management

Few studies have directly compared the roles and functions of a patient navigator to a case manager. In a recent study by Schutt and colleagues (Schutt et al., 2017), the roles of patient navigators and case managers were compared within a state-wide care coordination program that employed individuals in both capacities across 26 health care sites. This program involved lay navigators with no clinical expertise, and, in contrast to the case managers, were mostly bilingual. Functionally, case managers reported a focus on educating patients, whereas patient navigators were concerned with patient needs and community services and interacted more with outreach workers; however, overlaps in the functions of these two roles did appear. Investigators found that the case managers in this program were more likely to report their work as closer to that of a physician and saw fewer patients than the patient navigators. Investigators concluded that the observed overlaps in functions between the two roles did not negatively affect the delivery of healthcare services to patients. This may be due, in part, to the inherent flexibility of patient navigation; some have argued that a defining characteristic between patient navigators and case managers is that navigation is not restricted to a "predefined set of services" and thus can be more flexible in its approach to supporting patients (Dohan and Schrag, 2005).

3. Purpose and Research Question

Few studies have attempted to delineate the functions and responsibilities of patient navigators (Luke et al., 2018) and case managers (Lukersmith et al., 2016; Tahan and Campagna, 2010), however no studies (to the authors' knowledge) have attempted to explicitly distinguish the difference between patient navigators and case managers. The responsibilities for each of these roles overlap in the literature, sometimes blending into one position (Shockney, 2015). Some authors have even argued that the role of a navigator undermines the position of case manager on the care team (Treiger and Fink-Samnick, 2013). Others have suggested that case management is a profession within a profession (Commission for Case Manager (CCM) Certification, 2000; Fisher, 1996), while a patient navigator is a position filled only by lay persons, with the exception of a nurse navigator (Willis et al., 2013). The purpose of this scoping review is to delineate the differences in the functions and backgrounds of patient navigators and case managers.

As suggested by Arksey and O'Malley (2005), an iterative process was used to develop the research question for the current review. The following research question was identified to address the gap in the literature:

1 How do the roles, functions, and backgrounds differ between patient navigators (professional and lay) and case managers in the context of healthcare delivery?

The current study defines the terms "role" and "function" according to Tahan and Campagna (2010). In their roles and function analysis, role is defined as a "term that refers to a set of behaviors associated with a position in a social structure, such as one's job title"; Alternatively, function is defined as a "grouping of specific activities that are derived from a role" (p. 247). This study will bring clarity to the specific functions (i.e. activities or responsibilities) and background (i.e. a priori knowledge and previous education) for two roles (patient navigators and case managers).

4. Methodology

A scoping review was chosen to explore the differences between patient navigators and case managers. The scoping review methodology is used to address broad concepts and is useful for examining ambiguous topics (Arksey and O'Malley, 2005; Joanna Briggs Institute (JBI), 2015; Peters et al., 2015). Scoping reviews also provide a structured and rigorous methodology for exploratory research questions (Arksey and O'Malley, 2005; Colquhoun et al., 2014). Unlike systematic reviews, which evaluate the rigor and quality of studies (Tranfield et al., 2003), scoping reviews allow for diversity in methodological scope and quality to identify gaps in particular knowledge areas (Peters et al., 2015; Kastner et al., 2012).

The objectives, inclusion criteria and methods for this scoping review were established in accordance with the recommendations for reporting in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA-ScR) extension for scoping review guidelines (Tricco et al., 2018). This scoping review used the PRISMA-ScR checklist (Tricco et al., 2018) to ensure rigor during the planning, organization, and reporting of this review.

4.1. Eligibility criteria

To be included in this scoping review, the central focus of the article had to be on patient navigation and/or case management in the context of healthcare delivery. Included articles were also required to contain a discussion on the roles, functions, or responsibilities of patient navigators or case managers. Study methodology was not limited in this review, due to the inclusive nature of scoping reviews (Peters et al., 2015); therefore the following full-text article types were considered for inclusion: qualitative, quantitative, and mixed methodology studies; literature reviews; and grey literature (e.g. government reports and organizational materials). Only articles published in English were included. Articles that did not use the terms "patient navigation/navigator" or "case management/manager" in the context of health care delivery were not included (e.g. those that focused on "care management" or those with a focus other than health were excluded). Articles were not restricted to a specific span of publication years. Finally, articles in which full-texts were not available (e.g. conference proceedings) were not included. Table 1 illustrates an overview of the inclusion and exclusion criteria. The lead author conducted an initial review of abstracts to determine if articles met inclusion criteria, and that same researcher conducted a full-text review of articles to assess eligibility for data extraction.

4.2. Information sources

4.2.1. Academic literature search

Searches were run in October 2017 in academic databases selected for their widespread use by health sciences researchers and potential for retrieving relevant articles. A second search took place in June 2018 to capture publications released between the time of the first search. Three databases (Medline, CINAHL, and PUBMED) were searched, using the following search terms: **Medline**: [patient navi* OR case manag*]; **CINAHL**: [MH "Professional Role+" AND ("case manag*" OR "patient navi*")]; **PUBMED**: [(patient navigation OR patient navigator) OR (case manager OR case management)].

4.2.2. Grey literature search

In addition to academic journal articles, the grey literature was also searched due to the likelihood of relevant information in organizational reports and websites (e.g. government documents). Consultations with a health research librarian facilitated a search of the grey literature on Google. An additional search was also conducted according to the Canadian Agency for Drugs and Technologies in Health's (CADTH) Grey Matters (CADTH, 2018) tool, which consists of various databases. The search strategy in the non-academic literature comprised of the following search terms: patient navigation/navigator and case management/manager. Sources were screened in Google according to titles until the point of saturation (i.e. after 2 pages passed in which a link was not opened).

4.3. Study selection

Articles identified in the academic database and grey literature searches were exported and organized into Excel for evaluation. The lead author screened titles and abstracts to determine each article's eligibility for full-text screening based on the broad a priori inclusion criteria (see 2.1). The second stage of study selection consisted of the retrieval of full-text articles, which were extracted and collated in a reference manager (Zotero) for further evaluation. When the lead author was unsure about a particular article (e.g. whether it fit the inclusion criteria), a co-author (SD) was consulted.

Table 1
Inclusion and exclusion criteria.

Criterion	Inclusion	Exclusion
Study focus	Patient navigation and/or case management in the context of healthcare delivery; discussion on the role and/or functions of the role	No reference to patient navigation and/or case management, or the presence of these roles outside of healthcare; no discussion on the role and/or functions of the role
Type of article	Any type of publication (e.g. empirical study, government report, etc) where a full text is available	Articles without a full-text publication (e.g. conference proceedings) and/or where the full-text article is not available
Language	English	Non-English
Geographical place of study	Any geographical place of study	No exclusions
Time period	Any date of publication	No exclusions based on date of publication

4.4. Data collection and analysis

Studies were initially coded with respect to whether the article described the functions of patient navigators, case managers, or both. Articles describing these roles were further coded for four descriptive variables: study type (academic or grey), article type (research study, academic review, report, etc), and country of study. Information related to the characteristics of patient navigators and case managers (e.g. practice setting (e.g. hospital or community); targeted disease type or condition (e.g. cancer); and training and knowledge) were also extracted and coded. Data from included articles were extracted and collected into a data charting form (Table 2), by the lead author. This data form was developed in consultation between the lead author and a co-author and piloted using a sample of articles before being implemented. Extracted data was organized in Excel under appropriate headings for all included sources.

Coded data were collated according to the emerging functions identified in the literature using the inductive thematic analysis. Themes were created based on the identification of patterns from the coded data. Summary statements regarding patient navigator and case manager functions were created for each domain.

5. Results

5.1. Study selection

A total of 1145 articles were identified through the search strategy in the academic databases. After the removal of duplicates, 928 academic articles underwent a title and abstract evaluation from which 438 were excluded. The majority of the articles excluded at this stage did not discuss the specific functions of either role and/or were not specific to the health care setting (e.g. case management in law, policing, etc). After full-text screening, another 357 were excluded, resulting in 133 included academic articles. A total of 9595 articles were identified in the grey literature database searches, from which 9568 were excluded after the title/abstract screening. Most of the grey literature articles were excluded due to the inclusive nature of these search engines compared to academic databases, often resulting in articles of little relevance. Moreover, grey literature sources were primarily excluded at the title/abstract stage (as opposed to the full-text evaluation) because screening involves having immediate access to full-text articles (i.e. clicking through to links) (see Fig. 1). A total of 160 articles were included in this review (76 on patient navigation, 84 on case manager, and 1 on both). Fig. 1 illustrates the number of articles at each stage of the study selection process.

5.2. Descriptive characteristics of articles

Descriptive data extracted from the included articles in this study provided information on the diverse settings and targeted health condition(s) of patient navigators and case managers. Included articles derived from 8 different countries, with the majority from the US ($n = 120$) and Canada ($n = 26$), followed by the United Kingdom ($n = 5$), Sweden ($n = 3$), Australia ($n = 3$), France ($n = 1$), Pakistan ($n = 1$), and Singapore ($n = 1$). The articles on patient navigation most often focused on the hospital setting ($n = 19$), followed by the community setting ($n = 8$), whereas articles on case management resulted in an approximately equal number of community ($n = 16$) and hospital ($n = 20$) settings. In remaining articles, the roles of patient navigators and case managers were found across multiple settings (patient navigators, $n = 31$; case managers, $n = 24$). Remaining articles did not specify a setting. Most of the articles that described patient navigation focused on cancer care ($n = 51$), whereas most articles describing case management were not focused on providing services for a specific health care need ($n = 60$). A list of the included articles and associated findings can be seen in the corresponding Data in Brief article.

5.3. Theme 1: Characteristics of patient navigators and case manager practice context

Information related to the characteristics and typical practice settings of patient navigators and case managers were collected and collated to better contextualize the identified functions for each role. The following section summarizes these findings under three categories that emerged from the data: (1) typical setting and point of care; (2) target patient population; and (3) delivery of services (i.e. modes of communication).

5.3.1. Typical setting and point of care

The typical setting of patient navigators and case managers vary greatly. Patient navigators may be employed by hospitals (Braun et al., 2012; King, 2016; North York General Hospital, 2012; Cancer Care Nova Scotia, 2004; The GMT Initiative, 2015) and other health centers (Browne et al., 2015), community-based organizations (Braun et al., 2012; The GMT Initiative, 2015; Browne et al., 2015), insurance companies (American Medical Association, 2015), and as independent consultants (American Medical Association, 2015). Likewise, case managers can be found across many settings (Berra, 2011), such as home care, hospitals, rehabilitation, and long-term care facilities (Kelley et al., 2015; AHC Media, 2016; Schmitt, 2006), but are also found in community-based and independent-care settings (Tahan et al., 2015). Case managers are also sometimes employed by insurance companies and government agencies (Tahan et al., 2015).

Table 2
Data charting form.

Category	Extracted component
General information	Author(s)
	Title
	Publication Year
	Article focus (i.e. patient navigation, case management, or both)
	Study methodology type (e.g. research study, academic review, etc)
	Study location (i.e. country)
	Article type (e.g. research study, academic review, report, etc)
Descriptive information and characteristics	Setting (e.g. hospital, community, etc)
	Targeted condition, health care need, and/or disease type (e.g. cancer)
	Information on background, training, and/or knowledge of patient navigators/case managers
	Definition of case manager/management or patient navigator/navigation (professional versus lay patient navigator)
Definition	Roles and/or functions of case manager or patient navigator (professional versus lay patient navigator)

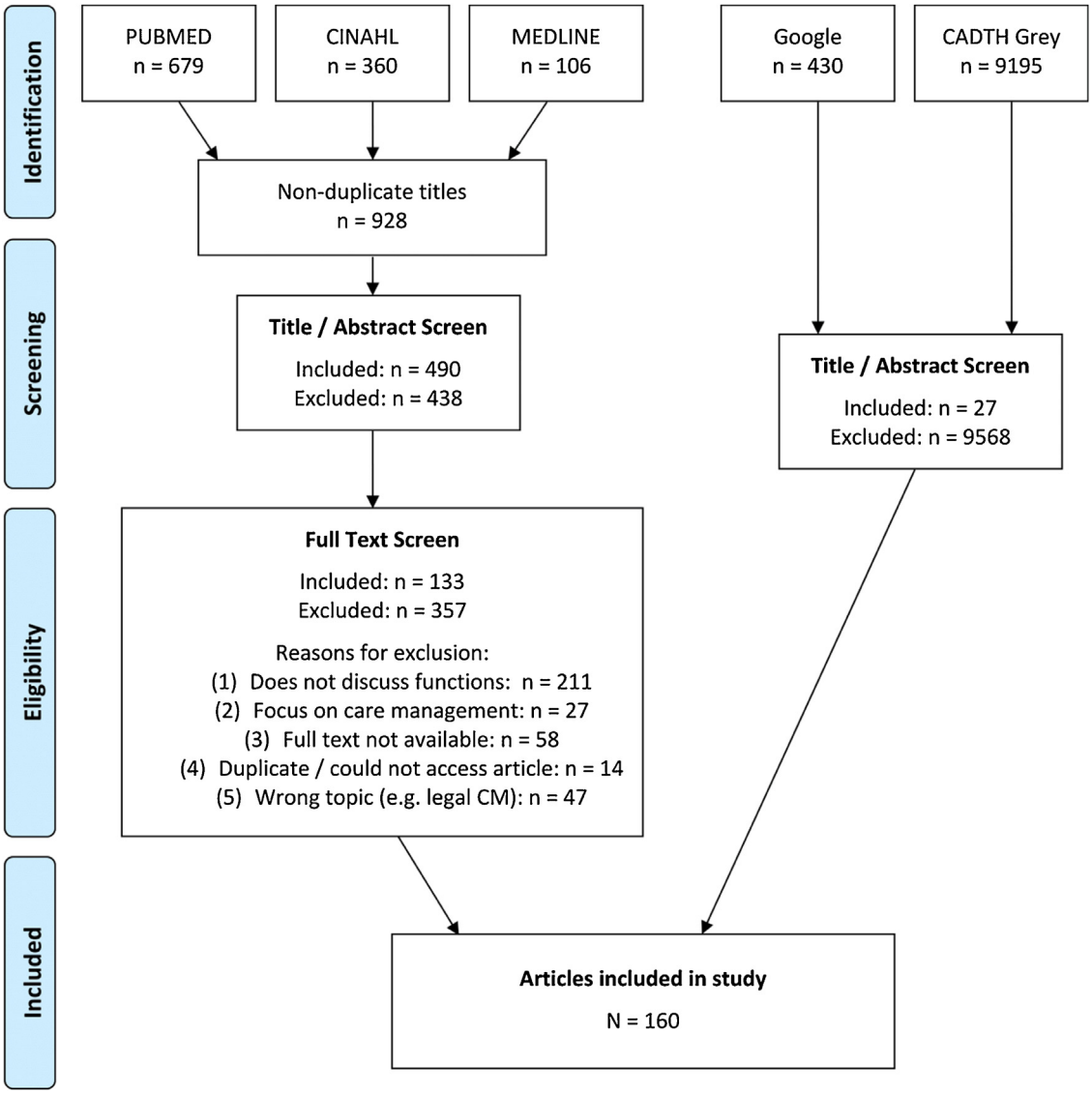

Fig. 1. PRISMA (Liberati et al., 2009) flow chart depicting the number of studies at each step of the selection process.

The point at which patient navigators and case managers become involved in a patient's care needs (e.g. from screening to discharge and beyond) varies across programs. Patient navigation services have been implemented at all stages across the cancer care continuum (e.g. prevention, screening, treatment, and survival) (Fillion et al., 2006; Dohan and Schrag, 2005; King, 2016; North York General Hospital, 2012; Freeman and Rodriguez, 2011; National Cancer Institute, 2010; Wilcox and Bruce, 2010; Krok-Schoen et al., 2016; Bonner et al., 2016; Farrisi and Dietz, 2013; Schwaderer and Itano, 2007), but have also been targeted at defined points of care during which patients need significant support and guidance (e.g. diagnosis) (Freeman and Rodriguez, 2011; Bonner et al., 2016; Farrisi and Dietz, 2013; Iowa Primary Care Association, 2012; Desimini et al., 2017; Gotlib Conn et al., 2014; Freeman et al., 2016; Wells et al., 2008). Likewise, case managers work at different points along the healthcare continuum (Jennings-Sanders and Anderson, 2003a), such as palliative and terminal phases of illness (Johansson, 2004; NHS Modernisation Agency and Skills for Health, 2005). Case management services may also be limited to patients with a predetermined criteria, reflected through an initial assessment (Daniels, 2009). The relationship between case managers and patients tend to be long-term (Engelke et al., 2008), sometimes spanning several years (Chappell et al., 2015). Case managers often get involved within the first 24 h of a critical injury or diagnosis (AHC Media, 2017; Stachowiak and Bugel, 2013), establishing an initial relationship upon admission (Blass and Reed, 2003; Lata et al., 2004). In some models of navigation, patient navigators serve as a constant point of contact for patients throughout their care journey (Meredith, 2013; King, 2016; Browne et al., 2015; Desimini et al., 2017; Pedersen and Hack, 2011). However, patient navigation has been demonstrated to be most effective at the level of screening (Paskett et al., 2011; Iowa Primary Care Association, 2012).

5.3.2. Target patient population

Both patient navigators and case managers tend to work with specific patient populations that require additional support. Navigators usually target individuals diagnosed with particular disease or condition (Schutt et al., 2017), such as cancer (Meredith, 2013; King, 2016; Cancer Care Nova Scotia, 2004; National Cancer Institute, 2010; Wells et al., 2008; Rice et al., 2013; New Hampshire Colorectal Cancer Screening Program, 2016; Oncology Nursing Society, 2010), mental health (King, 2016; Freeman et al., 2016), and other chronic disease(s) (The GMT Initiative, 2015; Mustapha

Table 3
Overview of the similarities and differences in functions between patient navigators and case managers.

Functon	Patient Navigator	Case Manager
Advocacy: Providing public and explicit support on behalf of a particular entity (e.g. patient, organization, program, etc). The process of advocacy includes addressing recognized gaps in the system.	Advocates on behalf of patients (e.g. for programs or services) (Fillion et al., 2012a; King, 2016; Brown et al., 2012; Seek and Hogle, 2007; Shockney, 2016)	Advocates on behalf of patients (Case Management Society of America (CMSA), 2016; Tahan and Campagna, 2010; Schmitt, 2006; Shelton et al., 2006; Powell and Wekell, 1996; Aliotta, 2005; Allred et al., 1995; Balard et al., 2016; Myers et al., 2002; Cohen and Cesta, 1997; Klockmo and Marnetoft, 2016; McCullough, 2009; Carr, 2005; Tahan and Huber, 2006; Gustafsson et al., 2013) in addition to hospitals (Tahan and Campagna, 2010; Powell and Wekell, 1996; Hospital Case Management, 2007; Brown et al., 2012; Tahan and Huber, 2006) and insurance companies; when conflict arises, however, case managers generally take position of the patient (Case Management Society of America (CMSA), 2016)
	Advocacy is not considered to be a primary function (Luke et al., 2018)	Advocacy is considered to be a primary function (Kelley et al., 2015; Hospital Case Management, 2007; Ramey and Daniels, 2001)
Care coordination (including transitions, discharge, and rehabilitation): "The deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services" (McDonald et al., 2007)	Networks and coordinates with patients and care providers across diverse settings (Fillion et al., 2006; North York General Hospital, 2012; Cancer Care Nova Scotia, 2004; The GMT Initiative, 2015; Browne et al., 2015; National Cancer Institute, 2010; Wells et al., 2008; Parker et al., 2010; Brown et al., 2012; Nix et al., 2016; Blaseg, 2015; Harding, 2015; Huber et al., 2014; Ferrante et al., 2010b; Watson et al., 2016). Distributes information across this network (Meredith, 2013; Desimini et al., 2017; Shockney, 2016)	Networks and coordinates with patients, caregivers, care providers, and stakeholders across diverse settings (Case Management Society of America (CMSA), 2016; You et al., 2016; CDRAK, 2007; Hughes, 2001; Haag et al., 2004; Clarke and Broen, 2007; Prentice et al., 2011; Tahan and Huber, 2006). Distributes information across this network (Case Management Society of America (CMSA), 2016; Balard et al., 2016; Tahan, 2005; Clarke and Broen, 2007; Tahan and Huber, 2006)
	Provides care coordination (Fillion et al., 2006; Walkinshaw, 2011; National Cancer Institute, 2010; Bonner et al., 2016; Wells et al., 2008; Rice et al., 2013; Nix et al., 2016; Shockney, 2016; Freund et al., 2014; Robinson-White et al., 2010b) to improve continuity (Fillion et al., 2006) and timeliness (McAllister and Schmitt, 2015) of care.	Provides care coordination to improve continuity and timeliness of care (Case Management Society of America (CMSA), 2016; Wang et al., 2015; NHS Modernisation Agency and Skills for Health, 2005; You et al., 2016; Bergman et al., 2013; Powell and Wekell, 1996; Allred et al., 1995; Smikey, 2011; Yamamoto and Lucey, 2005; Reimanis et al., 2001) Monitors and oversees the patient's care pathway (Phaneuf, 2008); (AHC Media, 2011)
	Sometimes integrated into patient's care team (Gilbert et al., 2011; Shockney, 2016; Doll et al., 2011), but not always (Luke et al., 2018)	Acts as a coordinator of the care team (Kelley et al., 2015); (Phaneuf, 2008). Regularly consults with members of the patient's care team (Schmitt, 2006; Cohen and Cesta, 1997; Genrich and Neatherlin, 2001; Walani, 2005)
	Supports transitions in care (McAllister and Schmitt, 2015)	Coordinates care transitions in collaboration with care providers (Case Management Society of America (CMSA), 2016; Tahan and Campagna, 2010; Craig, 2017; Tahan, 2005; Dulworth, 2005; Cesta, 2011; Tahan and Huber, 2006)
	No literature to indicate that patient navigators are involved rehabilitation, apart from reducing barriers to needed care *(see sub-theme 5.4.9)*	Rehabilitation is considered to be a key function of case managers (Tahan and Campagna, 2010; Haag et al., 2004; Dulworth, 2005)
Case monitoring and patient needs assessment: Case monitoring refers to the process of supervising a patient's activities as it relates to the maintenance and delivery of health care services. Patient needs assessment is a process of identifying and addressing gaps in patient care needs.	Helps patients and caregivers set and achieve care-related goals (Paskett et al., 2011; King, 2016; Fillion et al., 2012b)	Helps patients and caregivers set and achieve care-related goals (Case Management Society of America (CMSA), 2016; Tahan and Campagna, 2010; Engelke et al., 2008; Bergman et al., 2013; Cohen and Cesta, 1997; Craig, 2017; National Case Management Network of Canada, 2009; Park et al., 2009; Dulworth, 2005; Yamashita and Forchuk, 2005; Howe, 2005; Tahan and Huber, 2006,2006). Organizes, plans, and implements activities according to goals and the care plan (Case Management Society of America (CMSA), 2016; Health Quality Ontario, 2016; AAOHN Position Statement, 2013; Drennan and Goodman, 2004; National Case Management Network of Canada, 2009; Tahan, 2005; Phaneuf, 2008; AHC Media, 2011; Robbins and Birmingham, 2005; Tahan and Huber, 2006)
	Conducts patient needs assessments (Fillion et al., 2006; Gilbert et al., 2011; Canadian Partnership Against Cancer, 2012; Fillion et al., 2012b) and tracks interventions/outcomes (Shockney, 2016). Provides patient-centered support (Fowler et al., 2006) using a biopsychosocial model of care (Natale-Pereira et al., 2011)	Conducts full initial (Bentley, 2014; Craig, 2017; Yamamoto and Lucey, 2005; Walani, 2005; Park et al., 2009; Choe et al., 2005; Howenstein and Sandy, 2012; Robbins and Birmingham, 2005; Howe, 2005; Jennings-Sanders and Anderson, 2003b) and on-going (Johansson, 2004; Robbins and Birmingham, 2005; Tahan and Huber, 2006) patient needs assessments. Monitors, tracks, documents, and evaluates care (Tahan and Campagna, 2010; AHC Media, 2016; Schmitt, 2006; Hughes, 2001; Tahan et al., 2006a; Choe et al., 2005; Cesta, 2011; Howe, 2005; Tahan and

Table 3 (*Continued*)

Functon	Patient Navigator	Case Manager
		Huber, 2006, 2006; Gustafsson et al., 2013) and makes modifications (Tahan and Campagna, 2010) through patient-centered care (McCullough, 2009; Case Management Advisor, 2001)
	Patients may be approached by (Fillion et al., 2012a; Zangerle, 2015), or referred to (Brown et al., 2012), a patient navigator	Patients are typically screened to determine their need for case management services (Bentley, 2014; Tahan and Campagna, 2010; Schmitt, 2006; NHS Modernisation Agency and Skills for Health, 2005; Lata et al., 2004; Bonaiuto, 2007; Allred et al., 1995; Tahan et al., 2006a; Park et al., 2009; Tahan et al., 2006b; AHC Media, 2011; Drennan et al., 2014)
	Services are typically centered on a specific, pre-defined outcome of interest (e.g. screening) (Paskett et al., 2011)	Services can be provided over a long period of time throughout the course of an illness (Johansson, 2004)
Community engagement: Collaboration with individuals from various community groups to partner in collective activities (e.g. fundraising, knowledge dissemination, etc).	Conducts community outreach (Meredith, 2013; National Cancer Institute, 2010) (e.g. to communicate role of the patient navigator (Braun et al., 2012; Shockney, 2010). Sometimes involved in fundraising (Shockney et al., 2013)	Sometimes involved in the implementation and mobilization of community resources (AHC Media, 2016; Drennan and Goodman, 2004)
Education (including self-management and empowerment): Informational support provided to patients, and their caregivers and/or care providers. Includes emphasis on educating patients about the health care system and other information as it pertains to receiving appropriate and timely care.	Provides information and education to patients and their caregivers about treatment options and available resources (Fillion et al., 2006; Natale-Pereira et al., 2011; Braun et al., 2012; Canadian Partnership Against Cancer, 2012; McMullen, 2013; King, 2016; North York General Hospital, 2012; Desimini et al., 2017; Wells et al., 2008; Parker et al., 2010; Zangerle, 2015; Krebs et al., 2013; Huber et al., 2014; Fillion et al., 2012b; Cook et al., 2013b) by acting as a resource (Fillion et al., 2012a; Desimini et al., 2017; Zangerle, 2015)	Educates patients and their care teams about treatment options and possible complications (Case Management Society of America (CMSA), 2016; Bentley, 2014; Tahan and Campagna, 2010; Schmitt, 2006; Baldwin, 2013; Dulworth, 2005) and financial support (e.g. insurance) information (Tahan and Campagna, 2010; Schmitt, 2006)
	Promotes self-management (Fillion et al., 2012a; Braun et al., 2012; Canadian Partnership Against Cancer, 2012; Brown et al., 2012; Huber et al., 2014; Ferrante et al., 2010b) to foster autonomy; however not all patient navigation programs emphasize empowerment[7]	Offers health promotion and self-management education (Bentley, 2014; Tahan and Campagna, 2010; Engelke et al., 2008; Oncology Nursing Society, 2010; Shelton et al., 2006; Craig, 2017; Drennan and Goodman, 2004; McCullough, 2009; Prentice et al., 2011; Reimanis et al., 2001; Yamashita and Forchuk, 2005; Tahan and Huber, 2006, 2006) to empower patients and foster autonomy (Case Management Society of America (CMSA), 2016; Craig, 2017; National Case Management Network of Canada, 2009; Tahan, 2005; Tahan et al., 2006b; Yamashita and Forchuk, 2005; Tahan and Huber, 2006)
		Educates other professionals about treatments, financial supports for patients, and case manager duties (Case Management Society of America (CMSA), 2016; Schmitt, 2006; Cohen and Cesta, 1997; Tahan and Huber, 2006)
Administration and Research Activities: Involvement in the management or organization of an organization or research inquiry.	Helps patients and their caregivers find financial support/assistance (Braun et al., 2012; National Cancer Institute, 2010; Bonner et al., 2016; Mustapha et al., 2016; Krebs et al., 2013; Ferrante et al., 2010b	Organizes information on behalf of patients and their caregivers for financial support/assistance (Case Management Society of America (CMSA), 2016; Tahan and Campagna, 2010; Cohen and Cesta, 1997; Cesta, 2011; Tahan and Huber, 2006; Owen, 2006); however case managers are not always involved in the financial side of care (Hospital Case Management, 2007)
	Documents patient care activities (Parker et al., 2010; Nix et al., 2016) and helps patients find and maintain health records (Braun et al., 2012). Aims to standardize processes within and across care settings (Desimini et al., 2017; Shockney, 2010)	Mobilizes and evaluates appropriate use of resources across settings (e.g. utilization review) (Case Management Society of America (CMSA), 2016; Allred et al., 1995; Walani, 2005; Park et al., 2009; Howenstein and Sandy, 2012; Prentice et al., 2011; Tahan and Huber, 2006)
	Sometimes responsible for program evaluations (Braun et al., 2012; Wilcox and Bruce, 2010; Shockney, 2010; Brown et al., 2012); (Krebs et al., 2013) and assist in the research process[157]	Involved in cost-effectiveness (Tahan and Campagna, 2010; Genrich and Neatherlin, 2001; Tahan and Huber, 2006) and quality analysis (Tahan and Campagna, 2010; Tahan and Huber, 2006). May be involved in research activities, such as writing project proposals[131] and collecting/analyzing data (Robbins and Birmingham, 2005; Tahan and Huber, 2006; AHC Media, 1999)
Psychosocial support: Support provided to patients that extends across psychological and social needs. Includes, but not limited to: mental health; identity; and community support structures.	Provides emotional support to patients and their caregivers (Shockney et al., 2013; North York General Hospital, 2012; Browne et al., 2015; Bonner et al., 2016; (Desimini et al., 2017; Wells et al., 2008; Pedersen and Hack, 2011; Parker et al., 2010; Zangerle, 2015; Brown et al., 2012; Huber et al., 2014; Shockney, 2016; Ferrante et al., 2010b; Cook et al., 2013b)	Provides emotional and informational support for patients and their families (Shockney, 2010; Shelton et al., 2006; Balard et al., 2016; Tahan and Huber, 2006; Gustafsson et al., 2013)
	Does not provide counselling (Doll et al., 2011). Aims to reduce patients' anxiety and distress while interacting with care system (Fillion et al., 2006, 2012a; King,	Provides counselling (AHC Media, 2016); (Stanton and Dunkin, 2009) (e.g. providing grief counselling and crisis intervention (Powell and Wekell, 1996))

Table 3 (*Continued*)

Functon	Patient Navigator	Case Manager
	2016; Cancer Care Nova Scotia, 2004; Swanson and Koch, 2010; Fillion et al., 2012b)	
	Build and maintain relationships with patients, caregivers, and their providers (The GMT Initiative, 2015; Shockney, 2016)	Build and maintain relationships with patients, caregivers, and their care team (Fillion et al., 2012a; Kelley et al., 2015; Walani, 2005; Shockney, 2016)
	Do not create new services (Boston Medical, 2019), but may advocate for services that do not exist (Braun et al., 2012)	Sometimes fill a need for a need service (e.g. providing psychosocial care) (Health Quality Ontario, 2016)
Navigation of services (including referrals): Proactive guidance through health care services, programs, and treatments, relevant to the patient's needs. Directing and coordinating a patient to specialized or professional services.	Helps patients and their caregivers navigate the healthcare system by connecting them to relevant services across various sectors and settings (e.g. hospital and community) (North York General Hospital, 2012; Browne et al., 2015; Bonner et al., 2016; Pedersen and Hack, 2011; Loskutova et al., 2016; Joseph, 2012; Pratt-Chapman and Willis, 2013). Considered to be a primary function for both professional (Iowa Primary Care Association, 2012) and lay (Shockney et al., 2013) patient navigators	Helps patients and their caregivers navigate the healthcare system by connecting them to relevant services across various sectors and settings (e.g. hospital and community) (Grube and Chernesky, 2001; Shockney, 2010; Case Management Advisor, 2001; Tahan and Huber, 2006)
	Initiates referrals to relevant services and resources (Braun et al., 2012; Walkinshaw, 2011; The GMT Initiative, 2015; Pedersen and Hack, 2011; Boston Medical, 2019; Huber et al., 2014; Doll et al., 2011; Ferrante et al., 2010b; Campbell et al., 2010)	Initiates referral to relevant services and resources to optimize patient outcomes (Case Management Society of America (CMSA), 2016; Tahan and Campagna, 2010; Aliotta, 2005; Allred et al., 1995; Myers et al., 2002; Drennan and Goodman, 2004; Dulworth, 2005; Prentice et al., 2011; Stanton and Dunkin, 2009; Case Management Advisor, 2001; CADTH, 2012)
Reduction of barriers: Refers to the minimization or elimination of actual or perceived barriers to timely services, programs, or treatments.	Works to proactively reduce barriers to care (Meredith, 2013); (Braun et al., 2012; Walkinshaw, 2011; Cancer Care Nova Scotia, 2004; National Cancer Institute, 2010; Krok-Schoen et al., 2016; Bonner et al., 2016; Schwaderer and Itano, 2007; Wells et al., 2008; New Hampshire Colorectal Cancer Screening Program, 2016; Shockney, 2010; Parker et al., 2010; Zangerle, 2015; Blaseg, 2015; Harding, 2015; Krebs et al., 2013); Huber et al., 2014; Pratt-Chapman and Willis, 2013; Doll et al., 2011; Watson et al., 2016; Campbell et al., 2010) (e.g. health literacy (Natale-Pereira et al., 2011; Canadian Partnership Against Cancer, 2012)	Works to pro-actively reduce barriers to programs, services, and funding (Case Management Society of America (CMSA), 2016; Balard et al., 2016; Tahan and Huber, 2006) that could impact or delay care (e.g. transportation) (Shockney, 2010; Carr, 2005; Clarke and Broen, 2007)
	Patient navigation is considered to be a "barrier-focused" intervention (Yosha et al., 2011; Freeman and Rodriguez, 2011; Wells et al., 2008; Oncology Nursing Society, 2010; (Freund et al., 2014). Patient navigators reduce barriers to care instead of providing care (Dohan and Schrag, 2005)	Anticipates and solves problems (Case Management Society of America (CMSA), 2016; You et al., 2016; Anderson et al., 2004; Hughes, 2001; (Walani, 2005; Case Management Advisor, 2001; Howe, 2005)

Note. Exceptions to these differences have been noted in the literature and are further highlighted in the results section.

et al., 2016). Case managers also target specific patient populations that require complex care coordination (Bentley, 2014; Shockney, 2010). For example, case managers are known to provide services in cardiology (Schmitt, 2006; Shockney, 2010), HIV/AIDS (Shelton et al., 2006) and mental health care (Tahan et al., 2015; You et al., 2016). Case management is also provided to the chronically ill and acutely injured (Schmitt, 2006; You et al., 2016; Langstaff, 2011), such as veterans with complex injuries (Kelley et al., 2015). Typically, patient navigators serve individuals from marginalized or underserved communities (Paskett et al., 2011; Browne et al., 2015; Krok-Schoen et al., 2016), but are also known to serve the general population (Paskett et al., 2011).

5.3.3. Delivery of services (e.g. mode of communication)

Patients have been known to contact patient navigators by telephone (Fillion et al., 2006; Schutt et al., 2017; Cancer Care Nova Scotia, 2004; Pedersen and Hack, 2011; Ferrante et al., 2010a; Parker et al., 2010; Loskutova et al., 2016), email (Fillion et al., 2006), or meeting face-to-face (Yosha et al., 2011; Cancer Care Nova Scotia, 2004; Ferrante et al., 2010a). Case managers communicate directly with patients and health care professionals (Lata et al., 2004) through various modalities, such as face-to-face, telephone, or email (Bergman et al., 2013; Bristow and Herrick, 2002). Case managers often remain on-call for their patients (Powell and Wekell, 1996). There is variation in the number of times that a patient or family may contact a patient navigator. Patients and family members may contact patient navigators between one to five times (Alberta Cancer Foundation, 2015), or more than 18 times (Zangerle, 2015), from diagnosis to treatment and follow-up (Alberta Cancer Foundation, 2015).

There is little information about the typical caseload for patient navigators. The case manager's patient case load can vary, sometimes without limitations on size (Bonaiuto, 2007). There is some consensus that navigation services should be provided at low- to no-cost (Braun et al., 2012; Iowa Primary Care Association, 2012) to ensure accessibility, particularly to low-income and marginalized individuals (Freeman and Rodriguez, 2011; Iowa Primary Care Association, 2012).

5.4. Theme 2: Functions of patient navigators and case managers

Functions identified from the articles included in this study were collated and grouped into nine resulting categories: (1) advocacy; (2) care coordination (including transitions, discharge, and rehabilitation); (3) case monitoring and patient needs assessment; (4) community engagement; (5) education (including self-management and empowerment); (6) administration and research activities; (7) psychosocial support; (8) navigation of services (including referrals); and (9) reduction of barriers. Specific functions are described in the following section according to each

category. An overview of the similarities and differences between each role according to these nine functions can be seen in Table 3, located at the end of this section.

5.4.1. Advocacy

Patient navigation typically involves advocacy (Fillion et al., 2012a; Meade et al., 2014; Schutt et al., 2017); but not always (Luke et al., 2018). The term patient navigator is sometimes used interchangeably with "patient advocate" (American Medical Association, 2015). Likewise, advocacy is considered by some authorities to be a primary responsibility of case managers (Hospital Case Management, 2007). Patient navigation programs that involve advocacy usually do so on behalf of the patient (King, 2016; Brown et al., 2012; Seek and Hogle, 2007; Swanson and Koch, 2010), such as by advocating for additional services or coverages (Natale-Pereira et al., 2011; Braun et al., 2012), or marshalling support for patient navigation services (Shockney, 2010; Brown et al., 2012). Similarly, case managers are often required to advocate on behalf of their stakeholders, which include patients (Tahan and Campagna, 2010; Kelley et al., 2015; You et al., 2016; Powell and Wekell, 1996; Aliotta, 2005; Allred et al., 1995; Balard et al., 2016; Campagna and Stanton, 2010; Gustafson et al., 2013; Health Quality Ontario, 2016; Myers et al., 2002; Powell and Carr, 2009; Stanton and Dunkin, 2002) and their families (Cohen and Cesta, 1997); physicians and staff (Case Management Society of America (CMSA), 2016; Hospital Case Management, 2007; Anderson et al., 2004); the community and the payer (Ramey and Daniels, 2001). However, when a conflict between these entities arises, case managers usually take the position of the patient (Case Management Society of America (CMSA), 2016). Patient advocacy takes place during treatment and sometimes through palliative and terminal phases of illness (Johansson, 2004). Case managers strive to promote patient self-advocacy as a means towards independence from health services (Case Management Society of America (CMSA), 2016; Craig, 2017). Examples of case management advocacy functions include: providing a voice for the patient on the care team (CDRAK, 2007); ensuring patient rights (Klockmo and Marnetoft, 2016); negotiating elements of the care plan (e.g. length of stay and required services) (Cohen and Cesta, 1997) or living situation (Kelley et al., 2015); reducing costs to patients by avoiding unnecessary tests or procedure (Hospital Case Management, 2007); and justifying expenses and resource allocation to payers (Hughes, 2001).

5.4.2. Care Coordination (including transitions, discharge, and rehabilitation)

Care coordination is considered to be a central function in both patient navigation (Fillion et al., 2006; Luke et al., 2018; Robinson-White et al., 2010a; Meade et al., 2014; Bentley, 2014; North York General Hospital, 2012; Freeman and Rodriguez, 2011; Desimini et al., 2017; Rice et al., 2013; Nix et al., 2016; McAllister and Schmitt, 2015; Joseph, 2012; Blaseg, 2015) and case management (Case Management Society of America (CMSA), 2016; Kelley et al., 2015; Jennings-Sanders and Anderson, 2003a; NHS Modernisation Agency and Skills for Health, 2005; Bergman et al., 2013; Powell and Wekell, 1996; Allred et al., 1995; Powell and Carr, 2009; Klockmo and Marnetoft, 2016; Hughes, 2001; AAOHN Position Statement, 2013; Drennan and Goodman, 2004; Genrich and Neatherlin, 2001; Lukersmith, 2017; McCullough, 2009; Smikey, 2011; Yamamoto and Lucey, 2005) as a means of better integrating or streamlining healthcare to improve continuity and timeliness of care for patients and their families. Collaboration with multiple care providers across various settings (i.e. working within the context of a multidisciplinary care team) has been observed with both patient navigators (Fillion et al., 2006, 2012a; Gilbert et al., 2011; King, 2016; Zangerle, 2015; Brown et al., 2012; Seek and Hogle, 2007; Ahern et al., 2012a; Boston Medical, 2019; Harding, 2015) and case managers (Tahan and Campagna, 2010; Hughes, 2001; Drennan and Goodman, 2004; Genrich and Neatherlin, 2001; Lukersmith, 2017). Promoting open communication between formal and informal care providers was identified as a function for both patient navigators (Meredith, 2013; Fillion et al., 2012a, a; Meade et al., 2014; Natale-Pereira et al., 2011; Desimini et al., 2017; Ferrante et al., 2010a; Swanson and Koch, 2010; Nix et al., 2016; Blaseg, 2015) and case managers (Tahan and Campagna, 2010; AHC Media, 2016; Schmitt, 2006; AHC Media, 2017; Shockney, 2010; Balard et al., 2016; Hughes, 2001; Carr, 2005; National Case Management Network of Canada, 2009; Tahan, 2005; Tahan et al., 2006a; Walani, 2005). Importantly, not all patient navigation programs work within the context of a multidisciplinary team (Luke et al., 2018).

Identified care coordination functions performed by patient navigators include: providing transitional support (Fillion et al., 2012a; Cancer Care Nova Scotia, 2004; Desimini et al., 2017) and personalized coaching (Desimini et al., 2017); coordinating and planning medical appointments (Natale-Pereira et al., 2011; Cancer Care Nova Scotia, 2004; National Cancer Institute, 2010; Krebs et al., 2013); communicating relevant information about a patient's care to appropriate members of the care team (e.g. changes to treatment) (Fillion et al., 2012a; Yosha et al., 2011; Parker et al., 2010; Cook et al., 2013a); acting as a liaison between care providers (Mustapha et al., 2016); contributing to a patient's multidisciplinary care team (Fillion et al., 2012a; Seek and Hogle, 2007); seeking new collaborations (i.e. additional care team members) (Parker et al., 2010); and assisting patients manage care across multiple providers (Ferrante et al., 2010a; Huber et al., 2014). Patient navigators sometimes interact with nonclinical staff on behalf of the patient, such as receptionists or administrators (Parker et al., 2010; Nix et al., 2016; Boston Medical, 2019), to book appointments or communicate with physicians (Fillion et al., 2006). Patient navigators answer questions (Walkinshaw, 2011) and match unmet needs to resources (Fillion et al., 2012a). Patient navigators may also initiate consultations with individuals in other disciplines (Wilcox and Bruce, 2010) to develop and coordinate new partnerships (Gilbert et al., 2011; Braun et al., 2012). Professionals patient navigators (i.e. those with clinical expertise) have also been known to coordinate multiple procedures to ensure continuity of care across multiple settings (Seek and Hogle, 2007).

Care coordination functions carried out by case managers include: establishing relationships with referrals (Park et al., 2009); contributing to a multidisciplinary care team to manage a patient's care (Case Management Society of America (CMSA), 2016; Berra, 2011; Schmitt, 2006; Bonaiuto, 2007; Cohen and Cesta, 1997; CDRAK, 2007; Lukersmith, 2017; Baldwin, 2013); and coordinating efforts with all members of the care team (Haag et al., 2004). Often, case managers are involved in the administrative aspect of care coordination, which involves detailed record-keeping (Case Management Society of America (CMSA), 2016; Lukersmith, 2017); (Park et al., 2009) and follow-up post-discharge (Bristow and Herrick, 2002). Case managers act as a resource for members of a care team (e.g. physician) (Bristow and Herrick, 2002; Powell and Wekell, 1996), which often results in the case manager becoming a liaison between patients, their families, community organizations, care providers, and other stakeholders (e.g. payers) (Case Management Society of America (CMSA), 2016; Schmitt, 2006; Bristow and Herrick, 2002; Myers et al., 2002; Hughes, 2001; Carr, 2005), thus simplifying the point of contact on behalf of a patient (Kelley et al., 2015) and reducing fragmentation in service delivery (Case Management Society of America (CMSA), 2016). In some cases, case managers become responsible for managing a multidisciplinary team (Case Management Society of America (CMSA), 2016; Carr, 2005; Phaneuf, 2008) and delineating specific functions of all parties

(e.g. providers) involved in the care plan (National Case Management Network of Canada, 2009). However, not all programs involve a centralized case manager; sometimes case management services are delivered in a more team-based approach (Anderson et al., 2004; Choe et al., 2005; Clarke and Broen, 2007; Howenstein and Sandy, 2012). This is particularly important for the development of an effective care plan, which is often created and executed in collaboration with the care team (Hughes, 2001; Tahan et al., 2006a; Dulworth, 2005; Tahan et al., 2006b).

Patient navigators are sometimes involved in the facilitation and expedition of discharge (King, 2016; Mustapha et al., 2016), creating summary notes and providing next steps to the care team (Zangerle, 2015). In contrast, discharge planning is an important function of case managers (Veterans Affairs Canada, 2011; Tahan and Campagna, 2010; Berra, 2011; Tahan et al., 2015; Shockney, 2010; Powell and Wekell, 1996; Walani, 2005; Clarke and Broen, 2007; Howenstein and Sandy, 2012; AHC Media, 2011; Cesta, 2011), as well as deciding when case management services are no longer needed (Tahan et al., 2006a) in collaboration with the primary care provider (Stachowiak and Bugel, 2013). Case managers may also be involved in intake planning during admission (Tahan et al., 2015), and continue to make modifications and amendments to the discharge plan throughout the patient's care journey (Prentice et al., 2011). In some countries with universal healthcare systems (e.g. Canada, Australia), case managers are known as discharge planners (Lukersmith, 2017). When a case is closed, the case manager will discuss next steps with the patient and notify stakeholders (e.g. care providers and payers) (Tahan et al., 2006a). Case managers are often involved in the administrative side of case closure, with functions related to data collection, analysis and reporting (Tahan et al., 2006a). Although patient navigators are involved in transitional support (Cancer Care Nova Scotia, 2004; Desimini et al., 2017; Fillion et al., 2012b), it does not appear to be a primary goal of patient navigation. Case managers, however, are typically responsible for planning changes in level of care (Shockney, 2010; Powell and Wekell, 1996) and managing transitions (Case Management Society of America (CMSA), 2016; Tahan and Campagna, 2010; Shockney, 2010; You et al., 2016; Craig, 2017; Tahan, 2005; Baldwin, 2013; Clarke and Broen, 2007; Dulworth, 2005; Reimanis et al., 2001; Stanton and Dunkin, 2009), usually consulting with the patient's primary care provider before significant changes in care interventions (Choe et al., 2005).

Within the identified articles, patient navigators were not identified as playing a substantial role in rehabilitation services, apart from reducing barriers to services and appropriate care (see sub-theme 5.4.9). However, a key function of case managers is to assist is the "restoration of health following a disease, illness, or injury to the pre-injury or illness state" (Tahan and Campagna, 2010; Haag et al., 2004). Case managers achieve this through many functions, such as: overseeing and arranging rehabilitation activities (Clarke and Broen, 2007; Dulworth, 2005); communicating with employers regarding job modifications (Tahan and Campagna, 2010; Tahan et al., 2006a); and identifying a need for specialized services and coordinating any accommodations (Tahan and Campagna, 2010).

5.4.3. Case monitoring and patient needs assessment

Both patient navigation (Fillion et al., 2006; Canadian Partnership Against Cancer, 2012; King, 2016; Freeman and Rodriguez, 2011; Krok-Schoen et al., 2016; Joseph, 2012; Gotlib Conn et al., 2016; Pratt-Chapman and Willis, 2013) and case management (Case Management Society of America (CMSA), 2016; Shockney, 2010; Lukersmith, 2017; Yamamoto and Lucey, 2005; National Case Management Network of Canada, 2009; Case Management Advisor, 2001) employ a patient-centered healthcare model based on a goal-oriented intervention (patient navigators (Paskett et al., 2011); case managers (Tahan and Campagna, 2010; Bonaiuto, 2007; Lukersmith, 2017)). In other words, helping patients set and prioritize goals is a function for both patient navigators (Fillion et al., 2012a; King, 2016; Ahern et al., 2012a) and case managers (Tahan and Campagna, 2010; Shockney, 2010; Cohen and Cesta, 1997; Park et al., 2009; Robbins and Birmingham, 2005; Yamashita and Forchuk, 2005). Patient navigators provide evidenced-based (Blaseg, 2015) and individualized assistance to patients and their families (McBrien et al., 2018; Gotlib Conn et al., 2014; New Hampshire Colorectal Cancer Screening Program, 2016) using a biopsychosocial approach (Natale-Pereira et al., 2011). Similarly, case management aims to improve the overall well-being of a patient through individualized and tailored assistance (Engelke et al., 2008; Langstaff, 2011; Park et al., 2009; Haag et al., 2004; Yamashita and Forchuk, 2005).

Patients may either be approached by (Fillion et al., 2012a; Zangerle, 2015) or referred to (Brown et al., 2012) a patient navigator; this is in contrast to case management, where patients may be screened to determine their need for services, by using data related to patient's physical, mental and social care needs (Bentley, 2014; Tahan and Campagna, 2010; Schmitt, 2006; NHS Modernisation Agency and Skills for Health, 2005; Lata et al., 2004; Bonaiuto, 2007; Allred et al., 1995; Tahan et al., 2006a; Park et al., 2009; Tahan et al., 2006b; AHC Media, 2011; Drennan et al., 2014). Patient and risk screening are considered to be among the primary functions of a case manager (Lata et al., 2004; Howenstein and Sandy, 2012).

Patient navigators conduct comprehensive screening and needs assessments with patients (Fillion et al., 2006; Gilbert et al., 2011; Canadian Partnership Against Cancer, 2012; McMullen, 2013; Wilcox and Bruce, 2010; Bonner et al., 2016; Blaseg, 2015; Huber et al., 2014; Fillion et al., 2012b); which involves assessing the patients' medical and social supports (Gilbert et al., 2011; Wilcox and Bruce, 2010). Similarly, case managers provide comprehensive screening and needs assessments of a patient's overall status across the domains of well-being (e.g. emotional, physical, social, and financial status) (Case Management Society of America (CMSA), 2016; Veterans Affairs Canada, 2011; Stanton et al., 2005; Tahan and Campagna, 2010; Jennings-Sanders and Anderson, 2003a; Blass and Reed, 2003; Allred et al., 1995; Health Quality Ontario, 2016; Cohen and Cesta, 1997; Craig, 2017; Hughes, 2001; AAOHN Position Statement, 2013; Drennan and Goodman, 2004; Lukersmith, 2017; Yamamoto and Lucey, 2005; Walani, 2005; Park et al., 2009; Baldwin, 2013; Tahan et al., 2006b, b; Robbins and Birmingham, 2005; Drennan et al., 2014; Thompson et al., 2016; Howe, 2005). Case managers collect this information through chart reviews (Tahan and Campagna, 2010; AHC Media, 2016), and by approaching individuals involved in the patient's care (e.g. family and other care providers) (Stanton et al., 2005; Tahan and Campagna, 2010; Kelley et al., 2015; Blass and Reed, 2003; Allred et al., 1995; Clarke and Broen, 2007; Howenstein and Sandy, 2012; Tahan et al., 2006b; AHC Media, 2011; Robbins and Birmingham, 2005). This initial assessment leads to the development of an appropriate and personalized care plan (in collaboration with formal and informal care providers) by both patient navigators (Bentley, 2014; Wilcox and Bruce, 2010; Freeman et al., 2016; Fillion et al., 2012b) and case managers (Case Management Society of America (CMSA), 2016; Tahan and Campagna, 2010; Blass and Reed, 2003; Campagna and Stanton, 2010; Health Quality Ontario, 2016; Myers et al., 2002; Craig, 2017; Howe, 2005). Patient navigators aim to match unmet needs with services and resources (Zangerle, 2015; Fillion et al., 2012b), whereas case managers plan, implement, and evaluate care activities (Veterans Affairs Canada, 2011; Tahan and Campagna, 2010; Berra, 2011; Schmitt, 2006; Campagna and Stanton, 2010; Gustafson et al., 2013; AAOHN Position Statement, 2013; Lukersmith, 2017; McCullough, 2009; Yamamoto and Lucey, 2005; Phaneuf, 2008; Choe et al., 2005;

Robbins and Birmingham, 2005). Case managers usually perform ongoing assessments and make appropriate changes to the care plan or implementation process (Tahan and Campagna, 2010; Schmitt, 2006; Powell and Wekell, 1996; Tahan et al., 2006b; Prentice et al., 2011; Robbins and Birmingham, 2005; Drennan et al., 2014; Howe, 2005), and help patients and their families make decisions related to treatment (Genrich and Neatherlin, 2001).

Patient navigation is usually centered on a specific, pre-defined outcome of interest (e.g. screening) (Paskett et al., 2011). Patient navigator functions related to case monitoring include: monitoring symptom management in their patients (Fillion et al., 2012a; Zangerle, 2015; Huber et al., 2014); tracking procedures, interventions and outcomes (Krebs et al., 2013; Shockney, 2016); ensuring that patients follow-up with referrals (Wilcox and Bruce, 2010; Nix et al., 2016); providing timely information related to self-management (Fillion et al., 2012b); helping patients maintain lifestyle and social activities during their care journey (Fillion et al., 2006) and working to reduce barriers to high quality care (Bonner et al., 2016). Patient navigators aim to deliver services to patients that are proactive and preventative (Canadian Partnership Against Cancer, 2012; King, 2016; Fillion et al., 2012b).

In contrast, case management can be provided over a long period of time, in order to monitor and assess medical and psychosocial issues throughout an illness (Johansson, 2004). Case manager functions related to case monitoring include: documenting progress with the care plan (e.g. through interviews with patients and providers) (Tahan and Campagna, 2010; Powell and Wekell, 1996; Park et al., 2009); monitoring for changes throughout the care journey (Veterans Affairs Canada, 2011; Sandberg et al., 2014); (Tahan and Campagna, 2010; AHC Media, 2016; Schmitt, 2006; Jennings-Sanders and Anderson, 2003a; Bristow and Herrick, 2002; Bonaiuto, 2007; Health Quality Ontario, 2016; Genrich and Neatherlin, 2001; Yamamoto and Lucey, 2005; Tahan et al., 2006a; Park et al., 2009; Tahan et al., 2006b, b; Prentice et al., 2011; Drennan et al., 2014; Howe, 2005); identifying gaps in the care plan (Bristow and Herrick, 2002; Tahan et al., 2006b); proactively managing complex and long-term conditions (Berra, 2011; NHS Modernisation Agency and Skills for Health, 2005; Engelke et al., 2008; Bristow and Herrick, 2002; Cohen and Cesta, 1997; Baldwin, 2013; Tahan et al., 2006b; Prentice et al., 2011); reassessing the care plan on a patient's well-being (Tahan and Campagna, 2010; Bergman et al., 2013; Prentice et al., 2011); and following-up on interventions (Dulworth, 2005). These functions ensure that patients receive timely and appropriate care (Stanton and Dunkin, 2002; Cohen and Cesta, 1997; Tahan et al., 2006b; Cesta, 2011; Yamashita and Forchuk, 2005). Case managers sometimes oversee care pathways through an episode of illness (Lata et al., 2004; Powell and Wekell, 1996; Phaneuf, 2008) and conduct medication procurement and reconciliations (Stanton and Dunkin, 2009). Case managers can be responsible for resource allocation and management (Cohen and Cesta, 1997; Hughes, 2001; Tahan et al., 2006a), as well as hospital visits (Hughes, 2001).

5.4.4. Community engagement

Patient navigators are sometimes known to lead or assist in the development of community supports (Pedersen and Hack, 2011; Doll et al., 2011), such as health care resources (Fillion et al., 2012b) and collaborations with community organizations (Ferrante et al., 2010a; Krebs et al., 2013) and support groups (National Cancer Institute, 2010). Patient navigators have been documented to conduct outreach activities (National Cancer Institute, 2010), such as community education (Braun et al., 2012), community-building (Shockney, 2015), and fundraising (Wilcox and Bruce, 2010); these types of outreach activities appear to be the primary responsibility of lay patient navigators (Shockney, 2015). There is less evidence in the literature of case managers conducting community engagement as part of their functions. Case managers do appear to assist with setting up and mobilizing community resources on behalf of patients (AHC Media, 2016; Drennan et al., 2014), and sometimes educate members of the community about the needs of their patients (Schmitt, 2006).

5.4.5. Education (including self-management skills and empowerment)

Patient education was identified to be an important function for both patient navigators (Natale-Pereira et al., 2011; Braun et al., 2012; Wilcox and Bruce, 2010; Nix et al., 2016; Harding, 2015; Cook et al., 2013a; Huber et al., 2014) and case managers (Bentley, 2014; Berra, 2011; Tahan et al., 2015; Shockney, 2010; Powell and Wekell, 1996; Aliotta, 2005; Stanton and Dunkin, 2002; Craig, 2017; Genrich and Neatherlin, 2001; Baldwin, 2013; Clarke and Broen, 2007), for example, patient navigators are engaged educating families (Wilcox and Bruce, 2010), helping to demystify the healthcare system (Gotlib Conn et al., 2014), and providing information relevant to their illness(es) and treatment(s) (Fillion et al., 2006; Freeman et al., 2016; Huber et al., 2014). Patient navigators also educate patients and providers about their role as a navigator (Campbell, 2010; Oncology Nursing Society, 2010), and the history, culture, and needs of a particular community to promote cultural appropriateness (Braun et al., 2012; Nix et al., 2016). Similarly, case managers have been known to educate care teams (e.g. families and caregivers) (Case Management Society of America (CMSA), 2016; Craig, 2017; Dulworth, 2005) about available services and resource (Blass and Reed, 2003; Tahan et al., 2006b) and information related to their illness and treatment (s) (Shockney, 2010). Case managers often act as an important resource for patients (Sandberg et al., 2014) and consultants for members of a care team (i.e. informal and formal caregivers) (Craig, 2017).

More specific patient navigator functions related to education include informing patients on early signs and symptoms of a condition (Huber et al., 2014) or side effects of a treatment (Natale-Pereira et al., 2011; Campbell, 2010; Swanson and Koch, 2010); facilitating the understanding of a diagnosis or information provided by other sources (e.g. professional care provider) (Canadian Partnership Against Cancer, 2012; Desimini et al., 2017; Brown et al., 2012; Krebs et al., 2013); and managing expectations for treatment (Gilbert et al., 2011; Gotlib Conn et al., 2014; Freeman et al., 2016). Patient navigators help patients feel more prepared (Doll et al., 2011), by advising them about care options (Natale-Pereira et al., 2011; King, 2016; Wells et al., 2008; Zangerle, 2015; Seek and Hogle, 2007; Krebs et al., 2013) and assisting with literacy issues and misconceptions (Schwaderer and Itano, 2007). Health promotion and prevention is sometimes conducted by patient navigators (Meredith, 2013; Meade et al., 2014).

Case managers also integrate health promotion and preventative information into their services (Case Management Society of America (CMSA), 2016; Cohen and Cesta, 1997; McCullough, 2009; Tahan et al., 2006a, b; CADTH, 2012). In certain situations, case managers have been documented to provide guidance about a patient's insurance or benefit coverage, or other financial supports available to them (Schmitt, 2006). Case managers sometimes work as change agents, encouraging healthcare workers towards new methods or knowledge of care delivery (Cohen and Cesta, 1997; Craig, 2017; Tahan and Huber, 2006).

Patient navigators assist patients with decision making (Shockney, 2015; Gilbert et al., 2011; Canadian Partnership Against Cancer, 2012; Pedersen and Hack, 2011; Doll et al., 2011) and problem-solving (Canadian Partnership Against Cancer, 2012) by

maintaining a library of appropriate materials (Shockney, 2015; Braun et al., 2012; North York General Hospital, 2012; Nix et al., 2016; Krebs et al., 2013), and acting as educational (King, 2016) or informational consultants (Pedersen and Hack, 2011; Krebs et al., 2013; Watson, 2017). Similarly, case managers help patients make informed decisions about their healthcare needs (Bentley, 2014; Tahan and Campagna, 2010; Craig, 2017; CDRAK, 2007) and empower them to problem-solve (Case Management Society of America (CMSA), 2016; You et al., 2016; Craig, 2017; Tahan, 2005). For example, case managers might explain multiple options for treatment (Case Management Society of America (CMSA), 2016; Craig, 2017; National Case Management Network of Canada, 2009) and encourage patients and their families to ask questions as they arise (National Case Management Network of Canada, 2009). Case managers also teach pertinent skills to patients (Lukersmith, 2017) to foster self-management (Case Management Society of America (CMSA), 2016; Tahan and Campagna, 2010; NHS Modernisation Agency and Skills for Health, 2005; National Case Management Network of Canada, 2009; Reimanis et al., 2001; Drennan et al., 2014) and promote independence from healthcare services (NHS Modernisation Agency and Skills for Health, 2005; You et al., 2016; National Case Management Network of Canada, 2009; Reimanis et al., 2001). For example, case managers might assist patients in self-glucose monitoring (Wilson et al., 2005).

Patient navigators usually aim to provide enough support to patients to empower them to make their own care decisions through self-navigation (Huber et al., 2014) and learn to self-manage their conditions (McBrien et al., 2018; Swanson and Koch, 2010). This is achieved by directing patients to appropriate sources instead of doing it for them (Fillion et al., 2012b). While patient empowerment is sometimes considered an important component of patient navigation (Fillion et al., 2012a; Meade et al., 2014; Yosha et al., 2011; Brown et al., 2012; Seek and Hogle, 2007; Fillion et al., 2012b), not all patient navigation programs emphasize empowerment (Luke et al., 2018).

5.4.6. Administration and research activities

Significantly more functions related to administrative duties were observed for case managers as compared to patient navigators. Although utilization review (i.e. resource management) was identified as a patient navigation function in one article (Wilcox and Bruce, 2010), it is considered to be central to many case management programs (Case Management Society of America (CMSA), 2016; Tahan and Campagna, 2010; Tahan et al., 2015; Jennings-Sanders and Anderson, 2003a; Powell and Wekell, 1996; Craig, 2017; Yamamoto and Lucey, 2005; Tahan et al., 2006b; Prentice et al., 2011; Tahan and Huber, 2006; AHC Media, 1999; Huston, 2002; Owen, 2006). This function includes assessing appropriateness of level of care (Tahan et al., 2006a), monitoring and managing resources allocation (Tahan and Campagna, 2010; Tahan et al., 2006a), and documenting activities (Tahan et al., 2006a).

Patient navigators are sometimes known to assist patients with insurance and financial issues (Schwaderer and Itano, 2007; Ferrante et al., 2010a), such as helping with health insurance applications (Natale-Pereira et al., 2011; Krebs et al., 2013; Huber et al., 2014; Shockney, 2016), identifying financial assistance options (Natale-Pereira et al., 2011; National Cancer Institute, 2010; Mustapha et al., 2016; Krebs et al., 2013; Huber et al., 2014; Rohan et al., 2016), and determining eligibility for public programs (e.g. Medicare) (Huber et al., 2014). Case managers are more often known to assist patients and their families with health insurance coverage (Hospital Case Management, 2007; Howenstein and Sandy, 2012; Tahan et al., 2006b; Tahan and Huber, 2006), in some cases reviewing eligibility for benefit coverage (Grube and Chernesky, 2001; Schmitt, 2006; Stachowiak and Bugel, 2013; Powell and Wekell, 1996; Hospital Case Management, 2007; Tahan et al., 2006a, b; AHC Media, 1999), providing information to payers about needed resources (Case Management Society of America (CMSA), 2016; Stachowiak and Bugel, 2013; Hospital Case Management, 2007; Tahan et al., 2006a, b), and advocating for applicable services or resources (e.g. medical equipment) (Stachowiak and Bugel, 2013; Powell and Wekell, 1996; Tahan et al., 2006a; Walani, 2005; Dulworth, 2005; Tahan et al., 2006b). However, case managers are not always involved in the financial aspect of health care service delivery (Hospital Case Management, 2007).

Patient navigators can be responsible for program evaluations (Braun et al., 2012; Wilcox and Bruce, 2010; Shockney, 2010; Brown et al., 2012; Krebs et al., 2013) and may assist in the research process (e.g. applying to Research Ethics Boards) (Krebs et al., 2013). Case managers can also be responsible for evaluating the effectiveness of care plans and other outcomes (e.g. cost-effective analysis) (Case Management Society of America (CMSA), 2016; Veterans Affairs Canada, 2011; Tahan and Campagna, 2010; Hughes, 2001; Genrich and Neatherlin, 2001; National Case Management Network of Canada, 2009; Tahan et al., 2006b; Cesta, 2011; Robbins and Birmingham, 2005; Howe, 2005) to help improve efficiency (Shockney, 2010). Case managers may be involved in research activities, such as writing grant/research proposals related to patient care (Cohen and Cesta, 1997), and collecting and analyzing data (Robbins and Birmingham, 2005; Tahan and Huber, 2006; AHC Media, 1999). Case managers might also conduct predictive modelling and other analyses to determine if a patient would benefit for case management services (Case Management Society of America (CMSA), 2016). Maintaining accurate and detailed record of case management services is also an important function of case managers (Howenstein and Sandy, 2012; Howe, 2005). Case managers are often required to balance high quality care with cost-effectiveness (Case Management Society of America (CMSA), 2016; Schmitt, 2006; Genrich and Neatherlin, 2001; Carr, 2005; Tahan et al., 2006b; Tahan and Huber, 2006). Sometimes case management can involve disease management (Grube and Chernesky, 2001; Tahan et al., 2015; Stanton and Dunkin, 2002; Tahan et al., 2006b; Owen, 2006).

Case managers are sometimes responsible for preparing reports in compliance with applicable regulatory requirements (Tahan and Campagna, 2010; Balard et al., 2016; Tahan et al., 2006b; Tahan and Huber, 2006). To facilitate case management and monitoring, case managers will oversee the management and monitoring of all medical records (AHC Media, 2011). Case managers are responsible for protecting the patient's privacy, confidentiality, and safety (Tahan and Campagna, 2010; Powell and Wekell, 1996; Park et al., 2009; Tahan et al., 2006b), adhering to ethical and legal accreditation standards (Tahan and Campagna, 2010; Park et al., 2009; Tahan et al., 2006b). Patient navigators may also help patients (Braun et al., 2012; McMullen, 2013; Parker et al., 2010) and employers (e.g. hospital) (McMullen, 2013; King, 2016) secure, maintain and transfer health records. Handling test results, reviewing cases, and documenting patient navigator activities have also been identified as patient navigator functions (Parker et al., 2010).

5.4.7. Psychosocial support

Patient navigators aim to provide emotional (North York General Hospital, 2012; Bonner et al., 2016; Desimini et al., 2017; Gotlib Conn et al., 2014; Pedersen and Hack, 2011; Ferrante et al., 2010a; Brown et al., 2012; Blaseg, 2015; Harding, 2015; Cook et al., 2013a; Huber et al., 2014; Shockney, 2016; Watson, 2017) and psychosocial (Meade et al., 2014); (North York General Hospital, 2012; Wilcox and Bruce, 2010; Gotlib Conn et al., 2014; Wells et al., 2008; Huber et al., 2014; Shockney, 2016; Watson, 2017) support to patients and their families (Fillion et al., 2012b). Patient navigators often provide a sympathetic ear to patients and their families

(Bonner et al., 2016), by "just being there" (Yosha et al., 2011). However, the extent to which patient navigators are involved in emotional support varies between navigational programs (Robinson-White et al., 2010a). Likewise, case managers provide emotional support (Sandberg et al., 2014; Tahan and Campagna, 2010; AHC Media, 2016; Gustafson et al., 2013; Lukersmith, 2017). In some cases, case managers are known to provide crisis intervention and grief counselling (Powell and Wekell, 1996), as well as conflict resolution (National Case Management Network of Canada, 2009). Counselling is considered to be a central function of the case management role (Shelton et al., 2006; Myers et al., 2002; Anderson et al., 2004). Case managers assist patients in managing their mental well-being (Veterans Affairs Canada, 2011; NHS Modernisation Agency and Skills for Health, 2005). Importantly, patient navigators provide a supportive, but not psychotherapeutic support (Doll et al., 2011). In contrast, case managers can provide psychiatric treatment to patients (Health Quality Ontario, 2016), and support families by acting as an ally and constant presence (Balard et al., 2016; Anderson et al., 2004; Yamashita and Forchuk, 2005).

Patient navigators strive to build and maintain relationships and trust with patients, their families, and their providers (The GMT Initiative, 2015; Shockney, 2016), often acting as a main point of contact for the patient (North York General Hospital, 2012; Zangerle, 2015; Nix et al., 2016). Likewise, case managers build and maintain relationships with patients (Veterans Affairs Canada, 2011) and act as a key point of contact on behalf of the patient (Berra, 2011). Patient navigators typically initiate and maintain close communication to support and assist patients (Fillion et al., 2012a; Shockney, 2016), including the patient and their families as members of the care team (Kelley et al., 2015; Walani, 2005). Alternatively, case managers maintain intimate relationships with patients and their families, which involves regular communication (Shelton et al., 2006), and involvement in many aspects of the patient's life (Shelton et al., 2006). Case managers usually communicate on an ongoing basis with patients and their care team to ensure that information is transparent (Case Management Society of America (CMSA), 2016). Case managers may work to validate a diagnosis with the appropriate stakeholder (e.g. patient, family, other healthcare providers) when deemed necessary (Robbins and Birmingham, 2005). In some programs, case managers also seek out and establish appropriate new partnerships (Bentley, 2014; You et al., 2016; Prentice et al., 2011).

Patient navigators aim to reduce anxiety in patients (Fillion et al., 2006; Cancer Care Nova Scotia, 2004) by building trust and breaking through health literacy barriers (Natale-Pereira et al., 2011); teaching them how to access needed resources or services (Cancer Care Nova Scotia, 2004) and emotionally preparing them for treatments (Doll et al., 2011). Patient navigators also provide support for caregivers (Freeman et al., 2016) by conducting distress screening (Harding, 2015; Fillion et al., 2012b), resolving caregiver disputes (Browne et al., 2015; Mustapha et al., 2016), and offering peer counselling (Rohan et al., 2016). Patient navigators sometimes monitor patient satisfaction with their care experience (The GMT Initiative, 2015). One study suggested that lay patient navigators are unprepared to provide psychosocial support and barrier assessments (Shockney et al., 2013).

Case management functions related to psychosocial support include providing psychosocial assessments and interventions (Stanton et al., 2005; Tahan and Campagna, 2010; Shockney, 2010; Tahan et al., 2006a; Howenstein and Sandy, 2012; Cesta, 2011) to patients and their families; helping patients better understand and cope with various medical or emotional issues (CDRAK, 2007); and referring patients to formal and informal community support programs (Tahan and Campagna, 2010).

5.4.8. Navigation of services (including referrals)

The central premise of patient navigation is to proactively guide, support, and orient patients through the healthcare system (American Medical Association, 2015; Esparza, 2013; North York General Hospital, 2012; Cancer Care Nova Scotia, 2004; The GMT Initiative, 2015; Bonner et al., 2016; Iowa Primary Care Association, 2012; Zangerle, 2015; Brown et al., 2012; Swanson and Koch, 2010; Freund et al., 2014), matching patients' unmet needs to appropriate resources (Canadian Partnership Against Cancer, 2012; McMullen, 2013; Campbell, 2010; Boston Medical, 2019; Krebs et al., 2013; Fillion et al., 2012b) to decrease fragmentation, improve access, and promote integration of care (National Cancer Institute, 2010; Iowa Primary Care Association, 2012; Pratt-Chapman and Willis, 2013). In other words, patient navigators link patients and their families to appropriate services and resources (Campbell, 2010; Walkinshaw, 2011; King, 2016; North York General Hospital, 2012; The GMT Initiative, 2015; Pedersen and Hack, 2011; Loskutova et al., 2016). This is a primary function for both professional (Iowa Primary Care Association, 2012) and lay patient navigators (Shockney et al., 2013). Importantly, patient navigators do not create new services (Boston Medical, 2019), but they may advocate for services that do not currently exist (Braun et al., 2012). Fundamental to this function is the need to identify medical and community supports (e.g. screening services) (Natale-Pereira et al., 2011; Ferrante et al., 2010a; Huber et al., 2014; Fillion et al., 2012b; Doll et al., 2011), and help patients choose, use and understand services (Ferrante et al., 2010a). To facilitate this, patient navigators might maintain a directory of services for a particular geographical area (Braun et al., 2012; Krebs et al., 2013). Patient navigators help patients connect to primary care (Peart et al., 2018), or identify a "medical home" (model of primary care that provides individualized and patient-centered care delivery (Scholle et al., 2011)) (Natale-Pereira et al., 2011; King, 2016; Huber et al., 2014), and determine eligibility for clinical trials (Shockney et al., 2013).

Similarly, case managers help patients navigate the healthcare system (AHC Media, 2017; Gustafson et al., 2013; Case Management Advisor, 2001), ensuring that they receive timely, efficient, and appropriate care (Langstaff, 2011; Aliotta, 2005; Case Management Advisor, 2001). Case managers guide patients and their families (Sandberg et al., 2014; Balard et al., 2016), by providing a linkage to pertinent resources and services (Sandberg et al., 2014; Allred et al., 1995; Health Quality Ontario, 2016; CDRAK, 2007; Prentice et al., 2011; Case Management Advisor, 2001) and up-to-date information (Blass and Reed, 2003). Case managers have also been identified to evaluate patients for community-based services (Tahan et al., 2006b).

Both patient navigators (Luke et al., 2018; Fillion et al., 2012a; McMullen, 2013; Nix et al., 2016; Krebs et al., 2015) and case managers (Case Management Society of America (CMSA), 2016; Grube and Chernesky, 2001; Tahan and Campagna, 2010; Myers et al., 2002; Dulworth, 2005; Prentice et al., 2011; Drennan et al., 2014; CADTH, 2012) refer patients and their families to appropriate mental and physical healthcare services, including specialty providers and community-based supports across various settings (e.g. domestic violence assistance, legal and financial assistance, etc). In some case management programs, coordinating referrals makes up a large amount (45%) of the case manager's workload (Stanton and Dunkin, 2009). Case managers identify new resources in the community and maintain ongoing relationships with referral sources (Tahan and Campagna, 2010; Stanton and Dunkin, 2009).

5.4.9. Reduction of barriers

Patient navigation is often considered to be a "barrier-focused" intervention (Dohan and Schrag, 2005; Freeman and Rodriguez, 2011; Iowa Primary Care Association, 2012; Wells et al., 2008; Freund et al., 2014) that aims to identify and reduce physical and

psychological barriers to care delivery (Esparza, 2013; Meredith, 2013; McBrien et al., 2018; Meade et al., 2014; Yosha et al., 2011; Braun et al., 2012; Canadian Partnership Against Cancer, 2012; McMullen, 2013; (Krok-Schoen et al., 2016; Farrisi and Dietz, 2013; Wells et al., 2008; New Hampshire Colorectal Cancer Screening Program, 2016; Mustapha et al., 2016; Shockney, 2010; Parker et al., 2010; Alberta Cancer Foundation, 2015; Blaseg, 2015; Harding, 2015; Krebs et al., 2013; Fillion et al., 2012b; Pratt-Chapman and Willis, 2013; Rohan et al., 2016; Fowler et al., 2006) and bridge system gaps (Fillion et al., 2012a; Wells et al., 2008). Case management also involves proactively reducing barriers for patients and their families (Case Management Society of America (CMSA), 2016; Tahan and Campagna, 2010; Shockney, 2010; Klockmo and Marnetoft, 2016; Carr, 2005; Howe, 2005), as a means towards timely and effective care delivery.

Patient navigators are known to make appointments for patients (Natale-Pereira et al., 2011; Braun et al., 2012; Cancer Care Nova Scotia, 2004; Schwaderer and Itano, 2007; Ferrante et al., 2010a), during which they might help fill out necessary paperwork and provide language interpretation (Natale-Pereira et al., 2011; Yosha et al., 2011; Braun et al., 2012; National Cancer Institute, 2010; Bonner et al., 2016; Ahern et al., 2012a; Krebs et al., 2013). Patient navigators also assist with transportation (e.g. to appointments) (Natale-Pereira et al., 2011; Shockney et al., 2013; Braun et al., 2012; Cancer Care Nova Scotia, 2004; National Cancer Institute, 2010; Bonner et al., 2016; Schwaderer and Itano, 2007; Ahern et al., 2012a; Krebs et al., 2013) and other practical needs (e.g. obtaining child care or financial assistance) (Yosha et al., 2011; Campbell, 2010; Bonner et al., 2016; Ferrante et al., 2010a; Fillion et al., 2012b; Doll et al., 2011). Although patient navigators address barriers to care, they do not provide services (Dohan and Schrag, 2005). An identified function of patient navigation is proactive and flexible problem-solving (Schutt et al., 2017; Dohan and Schrag, 2005; Fillion et al., 2012b). Patient navigators can help patients manage expectations and prepare for appointments and treatment (North York General Hospital, 2012), sometimes facilitating ancillary care as needed (Natale-Pereira et al., 2011).

Case managers are known to reduce barriers by helping patients improve their health literacy (CDRAK, 2007) and independent living skills (e.g. housing assistance) (Health Quality Ontario, 2016). Case managers can also assist with complicated forms (e.g. financial services) (Sandberg et al., 2014; Shockney, 2010). A central function of case management is problem solving as a means of providing more integrated care to patients (Sandberg et al., 2014; You et al., 2016; Balard et al., 2016; Anderson et al., 2004; Case Management Advisor, 2001).

5.5. Theme 3: Background and knowledge areas of patient navigators and case managers

Patient navigators can be individuals with or without a professional background in care delivery (McBrien et al., 2018; Meade et al., 2014; Paskett et al., 2011; Yosha et al., 2011)–; Shockney et al., 2013; Wang et al., 2015; (McMullen, 2013; Rice et al., 2013; Mustapha et al., 2016; Loskutova et al., 2016); non-clinician navigators are typically referred to as peer or lay navigators (Paskett et al., 2011; Yosha et al., 2011; Shockney et al., 2013; McMullen, 2013; Rice et al., 2013). Whether patient navigation programs should be staffed by a professional or lay patient navigator is controversial (McMullen, 2013). Many patient navigation programs in the United States employ lay patient navigators (Robinson-White et al., 2010a). Navigation programs are diverse in personnel and practice scope, as this is typically driven by local needs (Paskett et al., 2011). Professional patient navigators have backgrounds in various disciplines (Paskett et al., 2011) including nursing (Gilbert et al., 2011; Shockney et al., 2013; North York General Hospital, 2012; Wilcox and Bruce, 2010; Desimini et al., 2017; Gotlib Conn et al., 2014; Rice et al., 2013; Oncology Nursing Society, 2010; Swanson and Koch, 2010; McAllister and Schmitt, 2015; Harding, 2015), social work (Gilbert et al., 2011; Cancer Care Nova Scotia, 2004; Browne et al., 2015; Wilcox and Bruce, 2010; Gotlib Conn et al., 2014; Rice et al., 2013; Oncology Nursing Society, 2010), and health education (Rice et al., 2013). Alternatively, case managers typically have a professional clinical background in areas of social work (Tahan et al., 2015; AHC Media, 1999), nursing (Berra, 2011; Tahan et al., 2015; Jennings-Sanders and Anderson, 2003a; NHS Modernisation Agency and Skills for Health, 2005; Lata et al., 2004; Shockney, 2010; McCullough, 2009; AHC Media, 1999; Stanton and Packa, 2001), physiotherapy, occupational therapy (Bergman et al., 2013), pharmacy (Choe et al., 2005) and other health and human services (Tahan et al., 2015; Campagna and Stanton, 2010). In some jurisdictions, case management services are provided by community-care nurses (Bergman et al., 2013).

Lay navigators are sometimes individuals from the local community that strive to improve access to care for a particular population (Shockney et al., 2013; Freeman and Rodriguez, 2011) or have experience with the healthcare system (e.g. survivors) (American Medical Association, 2015; Gilbert et al., 2011; Rohan et al., 2016). Individuals in these roles can often address barriers in a more culturally appropriate manner (Rohan et al., 2016). Patient navigators may also be individuals with administrative or legal experience (American Medical Association, 2015). Typically, lay patient navigators receive some level of training (Shockney et al., 2013; Wang et al., 2015; Braun et al., 2012; Schutt et al., 2017); in Canada, this training includes role definition, cultural awareness, communication skills, and scope of practice (Canadian Partnership Against Cancer, 2012). Lay patient navigators usually work under the supervision of a care professional (Ahern et al., 2012b), such as a social worker (Oncology Nursing Society, 2010). Professional patient navigators also receive training upon becoming navigators (Zangerle, 2015); this includes learning about relevant community resources and guidelines for services (Zangerle, 2015).

Both case managers and patient navigators understand the healthcare system to varying extents. Patient navigators usually have extensive knowledge of care systems and community supports (Shockney et al., 2013; McMullen, 2013; Cancer Care Nova Scotia, 2004; Pedersen and Hack, 2011; Oncology Nursing Society, 2010) and understand the culture of care (Shockney et al., 2013; Braun et al., 2012). Professional navigators (i.e. nurses) have knowledge of medical procedures and possible complications (Seek and Hogle, 2007). Patient navigators understand applicable professional and legal standards and regulations (Shockney, 2010; Brown et al., 2012). Case managers usually have extensive knowledge of complex diseases (Bristow and Herrick, 2002; Baldwin, 2013; Howe, 2005) and epidemiology (Genrich and Neatherlin, 2001). They possess knowledge of available services and treatments (Bristow and Herrick, 2002), as well as the healthcare delivery system (Bristow and Herrick, 2002; Ramey and Daniels, 2001). For example, case managers possess the applicable knowledge to identify and use evidence-based clinical pathways (Hughes, 2001; Park et al., 2009; Drennan et al., 2014) and how to collect, analyze, and synthesize data (Howe, 2005). Case managers in rural settings are considered to be “expert generalists” (Stanton and Dunkin, 2002) who are able to provide quality and timely care with limited resources and healthcare options (Stanton and Packa, 2001). They are sometimes known as disability specialists (Tahan et al., 2015). Case managers have extensive knowledge of applicable legislation and rules (including ethics) (Cohen and Cesta, 1997; Klockmo and Marnetoft, 2016; Park et al., 2009) to facilitate the creation of a care plan across diverse settings and services (Smikey, 2011). They understand emergency care and

utilization management (Bristow and Herrick, 2002; Howenstein and Sandy, 2012).

Patient navigators often collaborate with care professionals to provide culturally-sensitive care (National Cancer Institute, 2010; Krebs et al., 2013; Shockney, 2016) and competencies (Meade et al., 2014). For example, patient navigators strive to offer culturally and linguistically appropriate assistance and resources (e.g. assessment tools) (Meredith, 2013; Canadian Partnership Against Cancer, 2012; Rohan et al., 2016) to assist patients overcome barriers to care (Natale-Pereira et al., 2011). Patient navigators ensure that information is provided in the patient's language (Braun et al., 2012) and work within the customs of the surrounding community (McMullen, 2013). They also work towards system change by encouraging diversity in staff and educating care providers (Braun et al., 2012). Although case managers also strive to provide culturally-appropriate care (Case Management Society of America (CMSA), 2016), less information that describe specific functions related to the provision of culturally-appropriate care was described in the included articles. One way that case managers might achieve culturally-appropriate care is by determining the ways in which relevant cultural influences or beliefs might affect delivery systems (Tahan et al., 2006b; Howe, 2005).

6. Discussion

6.1. Principal findings

This scoping review sought to identify differences in the roles, functions, and backgrounds of patient navigators and case managers. Despite significant overlap within the observed functions for each role, important distinctions did emerge. This research also noted many differences in the background and lens of patient navigation and case management services across varying contexts.

Patient navigators were observed to provide support in lieu of treatment or advice (Ahern et al., 2012a), whereas case managers were often reported to provide clinical care (e.g. psychiatric treatment) (Health Quality Ontario, 2016). In other words, a defining difference between patient navigators and case managers is that navigators provide emotional and informational support, not clinical care (McBrien et al., 2018). This may be due to differences in clinical backgrounds, where the role of patient navigators may be filled by lay persons (Robinson-White et al., 2010a; Paskett et al., 2011; McMullen, 2013; Rice et al., 2013).

Across articles, an important goal of patient navigation was to help patients navigate amongst existing services (American Medical Association, 2015) and advocate for missing services (Braun et al., 2012) rather than create new services (Boston Medical, 2019). However, case managers were able to fill a need by sometimes acting as a care provider (e.g. providing psychosocial care) (Health Quality Ontario, 2016). This differentiation had implications for the responsibilities of each role on the patient's care team. Specifically, patient navigators were observed to facilitate communication amongst formal and informal care providers (Meredith, 2013; Fillion et al., 2012a; Meade et al., 2014; Natale-Pereira et al., 2011; Desimini et al., 2017; Ferrante et al., 2010a; Swanson and Koch, 2010; Nix et al., 2016; Blaseg, 2015; Fillion et al., 2012b), but were not always members of a wider care team (Luke et al., 2018). Case managers, however, were observed to be integral members of the care team (Bristow and Herrick, 2002; Powell and Wekell, 1996) that were sometimes responsible for overseeing its management (Case Management Society of America (CMSA), 2016; Schmitt, 2006; Bristow and Herrick, 2002; Myers et al., 2002; Hughes, 2001; Carr, 2005; Phaneuf, 2008).

It has been noted in the literature that while patient navigation has become a staple in oncology care delivery, the position is largely unknown outside of that setting (McBrien et al., 2018; Harding, 2015). Indeed, the current study found that most studies on navigation focused on the cancer care setting, but the intervention did target other conditions as well (e.g. chronic disease). Case management, on the other hand, is prevalent across many complex disease types and injuries (Bentley, 2014; Shockney, 2010). This distinction is likely owing to the historical origins of each role.

In settings where patients have access to both patient navigators and case managers, the distinction between roles is sometimes based on the length of relationship with patients. Specifically, patient navigators may work with patients for a predetermined amount of time (e.g. from screening to diagnosis), after which patients may transition to the case manager's care (Farrisi and Dietz, 2013). However, patient navigation services are not always limited to a certain point; in some cases they might extend from pre-diagnosis to one year post-diagnosis (Desimini et al., 2017).

Differences in the way that patient navigation and case management are defined across jurisdictions and countries (Bentley, 2014; Klockmo and Marnetoft, 2016; Manthorpe et al., 2012) suggests that these roles may depend on the nature of a governing health care system (e.g. United States' Medicare versus universal health care in other countries) and the focus of a particular provider (Yamamoto and Lucey, 2005). For example, case managers based in the United States appear to conduct more tasks related to utilization management and administration on behalf of patients than those in Canada. In Australia, cancer care coordinators fulfill a similar role to that of a patient navigator (Daniels, 2009; Cook et al., 2013a). In the past, case management was carried out by social workers to facilitate discharge for patients leaving the hospital (Rossi, 2003); case managers continue to be involved in discharge planning in countries with universal health care services (e.g. Canada, UK, Australia, etc) (Lukersmith, 2017). Patient navigators, however, were not identified to play a substantial role in patient discharge in this study.

Within the identified articles, case managers conducted more administrative tasks related to administration, such as utilization review. Utilization review is undertaken as a means to lower costs associated with care delivery (Castillo and Bennett, 1989), thus is often conducted within insurance companies, hospitals, and other care setting (Institute of Medicine and I, 1989). Indeed, more studies described case managers in the hospital setting than patient navigators in this study. Historically, utilization review is considered to be an original function of the case managers (Cesta, 2011).

As expected, some functions related to the case management role did depend on the context and setting of the intervention (e.g. rural case management (Stanton and Dunkin, 2009)). However, many functions appeared to be consistent across case management, such as patient advocacy (Tahan and Campagna, 2010), care coordination activities (Case Management Society of America (CMSA), 2016), rehabilitation (Tahan and Campagna, 2010), screening and needs assessments (Case Management Society of America (CMSA), 2016; Veterans Affairs Canada, 2011; Tahan et al., 2006b), administrative tasks (e.g. program/care plan evaluations) (Case Management Society of America (CMSA), 2016; Genrich and Neatherlin, 2001; National Case Management Network of Canada, 2009), and providing clinical care (Case Management Society of America (CMSA), 2016); (Tahan and Campagna, 2010). Evidence from the literature supports core functions to the case manager role. In a recent review, Lukersmith and colleagues (Lukersmith et al., 2016) determined five core models across case management: (1) Broker (identifies patient needs and helps patient navigate care

system); (2) Clinical (provides short-term clinical care in collaboration with care team); (3) Chronic Care (long-term care that is integrated across the social determinants of health); (4) Strengths Based (empowers patient towards self-management of care); and (5) Assertive (case managers provides intensive care that focuses on recovery over cure, such as in mental illness). Findings from the current study support the notion of these five core models across case management.

6.2. Professional patient navigator vs. lay patient navigator

Few articles differentiated functions between professional and lay navigators in the current review. Like professional patient navigators, lay navigators were observed to assist patients and their families in overcoming barriers to quality care (Wang et al., 2015) and will sometimes make appointments on behalf of patients (Yosha et al., 2011). Where care coordination activities performed by professional navigators often involve transitional support (Fillion et al., 2006) and follow-ups after appointments (Nix et al., 2016), lay navigators have been observed to conduct more administrative tasks to promote integration (Yosha et al., 2011). For example, lay navigators are sometimes responsible for distributing consultation reports or test results to relevant members of the care team and notifying care providers about new symptoms (Yosha et al., 2011).

Given that lay navigators usually represent a particular population of patients, they are often responsible for conducting community outreach, such as by educating the public about screening practices and early symptoms of cancer (Shockney et al., 2013). Similarly, lay navigators have been identified to provide emotional support to patients and their families (Gotlib Conn et al., 2014), however they may not be suited to providing psychosocial support (Shockney et al., 2013).

6.3. Study limitations

A strength of this synthesis is that it covered a wide range of disease types, allowing for generalizations across settings. This may also be a limitation of this study, as it may be difficult to draw accurate conclusions about the functions of each role from a broad lens. Despite careful and systematic efforts with regards to methodology, articles were evaluated by one author. This may have impacted the reliability of the described method. To be included in this review, articles were required to use the terms patient navigation (/navigator) or case management (/manager). This may have eliminated articles that describe the same role under a different term (e.g. care coordinator). While every effort was made to capture articles that delve into the functions of patient navigators or case managers, it is likely that not every relevant article was identified in the through the search strategy. Included articles were also limited to those in which full-text papers could be retrieved; therefore, potentially relevant articles may have been excluded due to inaccessibility (e.g. through inter-library loan). The databases used in the current study were chosen due to their wide-spread use across diverse health sectors; however, additional databases relevant to the present inquiry (e.g. Embase) may have additional articles of relevance. Finally, few articles related to lay patient navigators were identified in the present study. This may have been due, in part, to the MeSH term "professional role+" used in the CINAHL keyword search strategy.

This study was limited to published articles regarding the functions and background of patient navigators and case managers. Given the ubiquity of patient navigation and case management programs, many of which are not formally documented, current patient navigation and case management practices may not have been captured within this scoping review.

6.4. Implications

This is the first study, to the authors' knowledge, that directly compared the functions and backgrounds of case managers and patient navigators (professional and lay). Differences in the way that patient navigation and case management are defined (both within and across countries) has led to role confusion. For example, in practice, patient navigators encounter cases that sometimes require additional resources that may not be available to the patient. As a result, patients using patient navigation services may require additional support more akin to case management.

The present study offers important distinctions between the roles and functions of patient navigators and case managers, which may be used to inform current practices across multiple health and social settings. The distinctions presented in the current paper provide a basis for advancing future research and practice through more consistent use of language related to these two particular roles.

6.5. Concluding remarks and future research

The current study identified important distinctions on the differences and unique contributions of patient navigators and case managers, regardless of setting or context. However, there remains significant ambiguity between these two roles, particularly with regards to the scope of a patient navigator's responsibilities (Parker et al., 2010). Future research is needed to capture standardized definitions for these roles, and others that deal with individualized, patient-centered care (e.g. care coordinators). Moreover, further work is needed to determine the relationship between these functions and the context and setting of patient navigators and case managers. For example, accommodating diversity in both patient navigation and case management at the program level will be critical in the development of standardized definitions (Gunn et al., 2014). Standardization in the scope of practice between these roles is necessary to reduce role ambiguity (Freeman, 2006) and improve service delivery.

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Declaration of Competing Interest

None.

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