

# Primary Healthcare Providers' Activities in Linking Patients With Chronic Diseases to Community Organizations: A Scoping Review

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## Abstract

**Context:** Aging and increasing comorbidities in the population are leading to more complex care for patients and primary healthcare providers. Community organizations (COs) may play a role in the services offered to support patients with chronic diseases (PCDs) but there are currently no clear guidelines to support primary healthcare providers in linking patients to COs. **Objectives:** The aim of this study was to describe the role of primary healthcare providers regarding linking PCDs to COs by: (1) describing linking activities; and (2) identifying the main facilitators and barriers associated with these activities. **Methods:** This scoping review was based on the Arksey and O'Malley method, completed by Levac, Colquhoun, and O'Brien. Related keywords were used in 7 databases to search relevant studies. After the initial screening, 135 full texts were assessed for eligibility by 2 reviewers using inclusion/exclusion criteria. Empirical studies describing activities performed by primary healthcare providers in linking PCDs to COs or describing facilitators or barriers to linking activities were included. Studies describing activities linking to other services than COs or located in emergency departments were excluded. **Results:** In total, 28 studies were included. Information reported in the studies was classified into 8 main linking activities: capacity development, patient identification, assessment, information, planning, referral, follow-up, and collaboration. Facilitators and barriers to these activities were related to intrapersonal characteristics of providers and patients, professional practice, work environment, relationships, and external influences. Healthcare providers' involvement was often adapted according to their field of practice. **Conclusion:** This scoping review details the role of primary healthcare providers when linking PCDs to COs in a collaborative and interdisciplinary context, which can be adapted to clinical practice by providers, experts, or stakeholders to support improvement in chronic care management.

## Keywords

linking activities, primary care, healthcare providers, chronic diseases, community organizations

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## Introduction

The prevalence of chronic diseases (CDs) has risen significantly over the last 15 years, with CDs being the leading cause of global deaths worldwide.<sup>1,2</sup> A growing proportion of the population is diagnosed with multimorbidity and deals with 2 CDs or more.<sup>3,4</sup> CDs include a large variety of diagnoses, ranging from cardiovascular diseases to mental health disorders and have a significant impact on the healthcare system, as they are associated with more emergency room visits, more hospitalizations, more challenging healthcare coordination, and increased healthcare services costs.<sup>5-9</sup> CDs

increase the complexity of patient care, especially for healthcare providers working in a primary care setting since most of their consultations are with people living with CDs.<sup>6-8,10</sup>

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Furthermore, when dealing with CDs and multimorbidity, primary healthcare providers are faced with an increase in consultations and intensity of care, more referrals, and more actors involved in care coordination.<sup>6,8,11</sup>

To better meet the needs of these populations, cross-sector collaboration is increasingly encouraged, as it constitutes a pivotal element in CD management.<sup>1</sup> Among possible partnerships is the collaboration between healthcare teams, patients, and community partners.<sup>1</sup> When it comes to CD management, community organizations (COs) can offer tailored health and social services that further support patients' needs, such as disease management and education programs, caregiver support, and social support services.<sup>12</sup> Primary healthcare providers practice a range of activities that help link patients to COs.<sup>12</sup> Although these linking activities between patients living with chronic diseases (PCDs) and COs have proven to be useful in CD management, very few studies provided a description of them.<sup>12-14</sup> When it comes to primary care interventions in CD management, linking patients to COs is rarely explored.<sup>13,14</sup> There are no clear guidelines to support primary healthcare providers in their role with the patient and the CO, highlighting the need to explore what is currently known on linking activities in primary care settings.

Therefore, the aim of this scoping review was to describe the information about the role of primary healthcare providers in linking PCDs to COs by portraying the linking activities and identifying the main influencing factors associated with them.

## Methods

This scoping review relied on the 6-step framework proposed by Arksey and O'Malley, and completed by the Levac, Colquhoun, and O'Brien method.<sup>15,16</sup>

### Identifying the Research Question

The principal question of this study was, "What is the role of primary healthcare providers in linking PCDs to COs?" To narrow down the study topic, the main question was split into specific questions:

- What are the activities practiced by primary healthcare providers in linking PCDs to COs?
- What are the main influencing factors (facilitators or barriers) of these linking activities?

### Identifying Relevant Studies

Searches were conducted in the following databases: CINAHL, MEDLINE, Academic Search Complete, SocINDEX, Scopus, Emcare, and HealthStar. Two librarians specializing in healthcare were consulted independently to develop the search strategy around 3 key terms, namely

*community organizations, primary care, and referral*. Each keyword was broken down into synonyms. Terms in the primary care concept also included various healthcare providers known to work in this type of setting, such as physicians, nurses, social workers, and nutritionists or dietitians. To maximize the pool of eligible articles, searches did not include a publication date range. Boolean operators "AND" and "OR" were used and databases were filtered for articles written in English or French since all authors speak both languages. The complete search strategy applied in Scopus is presented in Supplemental Appendix 1.

### Study Selection

First, all titles and abstracts were reviewed using the inclusion and exclusion criteria. Then, 2 members of the research team (N.G. and E.H.) independently screened the selected full-text articles using the same criteria. Articles were included if they met the selection criteria. A third member helped to resolve disagreements, as needed. Zotero was used to remove duplicates, screen titles, and abstracts.

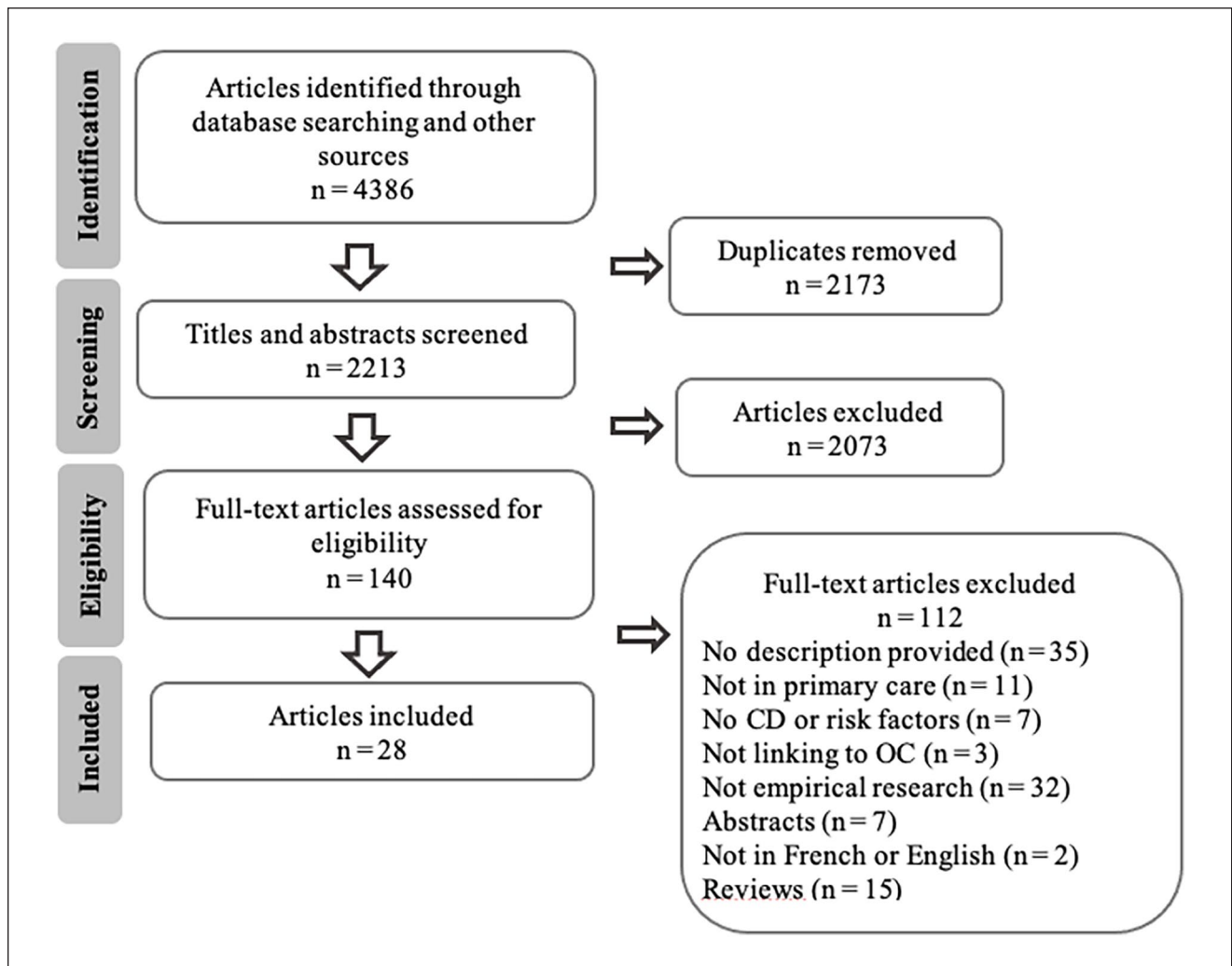
**Inclusion and exclusion criteria.** Studies describing activities performed by primary healthcare providers linking PCDs to COs or describing influencing factors were selected. Since prevention of risk factors is an important part of CDs management, studies focusing on patients with risk factors of CDs were also included.<sup>1</sup> Definitions of CDs included a broad range of long term diseases varying from physical diseases, cancer, neurological, and mental health disorders.<sup>1,5</sup> Tobacco use, poor nutrition, physical inactivity, and excessive alcohol use were included in the definitions of risk factors.<sup>1</sup> The description of linking activities had to be sufficiently detailed to allow transferability to other primary care practices and settings. Only full-text empirical studies were included. Studies were excluded if the description of activities was restricted to a unique health condition or event or if linkage concerned emergency departments, specialized care, or services other than COs.

### Charting the Data

Data were charted using Excel software. Extracted descriptive information included: authors; year of publication; study location; study design; aim of the study; referring provider; patients' diagnosis; linking activities; and influencing factors. One team member extracted all the data from the articles and another member validated 25% of the content.

### Collating, Summarizing, and Reporting the Results

Data were analyzed, summarized, and reported using inductive thematic analysis to identify key linking



**Figure 1.** PRISMA flowchart of the study selection.

activities and influencing factor categories.<sup>17,18</sup> Data were analyzed using Excel. Each sentence was examined to identify extracts of qualitative descriptive text associated with linking activities and influencing factors. The length of the extracts depended on the description provided by the authors (brief sentence to small paragraph). Relevant extracts were put in an Excel file and was then reviewed and analyzed to assign a theme. Color coding was used to differentiate the themes and organize the extracts. The extracts were then analyzed again to consolidate the emerging themes and to assure all data were correctly analyzed and sorted. This process was done inductively with multiple iterations. Once all data were classified, the relationships between the themes were identified to organize and synthesize the results. Emerging themes and their classification were reviewed and discussed by 3 other members of the research team (C.H., M.C.C., and E.E.).

### Consulting Experts

A 1 h virtual consultation was organized to present the results of the scoping review to 6 primary care experts, identified using a snowball technique.<sup>19</sup> This step aimed to discuss main findings in the context of current practice in primary care and to identify which aspects should be explored further in subsequent studies. Tips and suggestions resulting from this exercise are presented in this article's discussion.

## Results

### Search Strategy Results

First, 4386 articles were retrieved from the 7 databases. After removing duplicates, 2208 articles remained for the initial screening and 135 full texts were assessed for eligibility, using the inclusion and exclusion criteria. In total, 28 studies were included in this scoping review. Figure 1

shows the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flowchart reporting the complete process of the study selection.<sup>20,21</sup>

### Characteristics of Included Studies

Table 1 shows the descriptive characteristics of the 28 included studies,<sup>22-49</sup> published between 1993 and 2020. The majority (n = 15) originated in the United States,<sup>22-36</sup> Canada<sup>37-40</sup> and Australia<sup>41-44</sup> each had 4 studies and 2 studies were conducted in the United Kingdom.<sup>45,46</sup> Other countries include Scotland,<sup>47</sup> the Netherlands,<sup>48</sup> and Germany.<sup>49</sup>

The included studies targeted different types of patients. Twelve of them included adults living with a variety of CDs (coronary heart diseases, cerebrovascular diseases, hypertension, diabetes, and chronic kidney diseases),<sup>28,32-35,40-42,44-46</sup> 4 of which also focused on patients' unmet needs.<sup>28,33,34,46</sup> Three studies targeted patients presenting risk factors associated with CDs, such as tobacco use, poor diet, or sedentarity.<sup>25,29,43</sup> Patients with a mental health condition, namely depression or associated psychosocial problems, were included in 4 studies,<sup>36,37,47,48</sup> while 6 studies focused on patients living with dementia.<sup>23,26,30,31,38,49</sup> Two of these also targeted patients' caregivers<sup>38,49</sup> and 3 others focused solely on caregivers.<sup>22,24,27</sup>

Many primary healthcare providers were identified as carrying out linking activities, including physicians, nurses, social workers, care or service coordinators with various social or health backgrounds, community link practitioners employed in primary care, physical therapists, psychologists, healthcare assistants, pharmacists, dietitians or nutritionists, and occupational therapists.<sup>22-49</sup> Physicians were included in 23 studies.<sup>23-34,36-38,40-42,44,45,47-49</sup> Nurses and social workers were included in 16<sup>22,27,29,30,32,34-36,38-41,43,45,47,48</sup> and 10 studies<sup>28,29,32,34-36,38-40,48</sup>, respectively. Seven studies included various available primary care providers.<sup>29,32,34,36,38,40,48</sup>

### Linking Activities

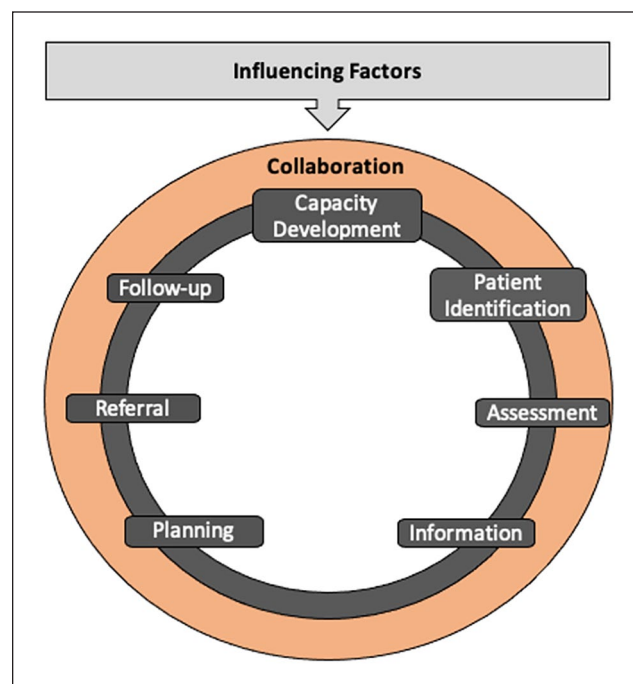
Eight linking activity categories emerged: Capacity development, Patient identification, Assessment, Information, Planning, Referral, Follow-up, and Collaboration. These categories are not mutually exclusive.

Before undertaking linking activities, healthcare providers must prioritize *capacity development* and be aware of available COs' services or linking partners.<sup>25,27,29,31-33,49</sup> Then, *patient identification* should be done to target those who could potentially benefit from COs' services, based on pre-established eligibility criteria.<sup>28</sup> This process should be quick and systematic.<sup>25,30</sup> *Assessment*, on the other hand, is a more comprehensive process carried out during an

appointment with the patient.<sup>26,34,43</sup> The goal is to address and understand patients' needs<sup>30,36</sup> and to gather as much relevant information as possible.<sup>30</sup> Then, sharing of *information* is carried out by a healthcare provider or linking partner through discussion of the potential services with the patient.<sup>27,38,39,48</sup> Once the potential services have been narrowed down, needs are discussed more specifically during the *planning* phase in order to establish and coordinate a specific service plan.<sup>22,24,25,28,30,33-36,38,41,42,47-49</sup> A *referral* is then made to facilitate patients' access to COs.<sup>28,38,45,46</sup> Following implementation of services, *follow-up* can be done with the patient and their network to validate whether initial needs have been met or new needs have emerged.<sup>22,24,26,27,34,43,46</sup> Fostering ongoing *collaboration* between all actors remains important to promote linking activities.<sup>24,26-28,31,33,35,36,38,40,41,46</sup> Table 2 summarizes each linking activity.

### Linking Activities and Influencing Factors

As presented above, linking activities are structured as categories that depend on and influence each other. Linking activities can also be impacted by the presence of various influencing factors, acting as barriers or facilitators. This relationship is illustrated in Figure 2.



**Figure 2.** Figure presenting primary healthcare providers' activities in linking patients with chronic diseases to community organizations.

**Table 1.** Descriptive Characteristics of Included Studies.

| Authors                                       | Study location | Study design and aim                                                                                                                                                                                                                                                                                                                | Primary care providers                                                                                                           | Population                                                                                               | Method summary                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Henderson et al <sup>36</sup>                 | United States  | Qualitative study examining collaborations between 6 primary care clinics and COs that were part of an initiative to address late-life depression using an enhanced collaborative care model.                                                                                                                                       | Care managers and primary care providers (unspecified)                                                                           | Patients with late-life depression                                                                       | Interviews and focus groups with care managers, administrators, primary care providers, and staff; analysis of various program documents                                                                                                                                                                                        |
| Valaitis et al <sup>40</sup>                  | Canada         | Qualitative descriptive study aiming to understand how primary care and health and social services (HSS) providers perceive the HSS needs of community-dwelling older adults and how they work together to address their barriers in accessing services to address those needs.                                                     | Nurse practitioners, physicians, pharmacists, dietitians, occupational therapists, registered nurses, and social service workers | Community-dwelling older adults with multiple chronic conditions                                         | Focus groups with providers, HSS managers, and coordinators                                                                                                                                                                                                                                                                     |
| Boehmer et al <sup>34</sup>                   | United States  | Qualitative study identifying the cognitive and structural needs of clinicians, social workers, and nurse care coordinators to effectively refer appropriate patients to the community care team (CCT) and the value these stakeholders derived from referring to and receiving feedback from the CCT.                              | Nurse care coordinators, social workers, physicians, and other primary care clinicians                                           | Patients with a range of multiple CDs and capacity problems (financial, physical, emotional, and social) | <ul style="list-style-type: none"> <li>- Patients' chart reviews, interviews, and observations with providers</li> <li>- Development of a toolkit based on findings to address gaps identified by researchers and stakeholders</li> <li>- Dissemination of the toolkit by clinical champions through social networks</li> </ul> |
| Holland, Vanderboom, and Harder <sup>35</sup> | United States  | Quasi-experimental study aiming to evaluate implementation of a community care team (CCT); to describe lessons learned during its development and implementation; and to evaluate the applicability of this model in the movement toward cross-sector team-based care coordination.                                                 | Nurse care coordinators and social workers                                                                                       | Adults with multiple chronic conditions                                                                  | <ul style="list-style-type: none"> <li>- Evaluation of CCT model by measuring patient- and community-focused outcomes</li> <li>- Use of various scales and questionnaires to collect data</li> </ul>                                                                                                                            |
| Elliott et al <sup>39</sup>                   | Canada         | Qualitative study aiming to understand the current context and operation of primary healthcare teams, focusing on the current process for referring older adults to community care services from primary care; the current state of information sharing; and identification of services available to older adults in the community. | Physicians, nurses, and interdisciplinary care providers such as social workers, dietitians, or occupational therapists          | Older adults in the community                                                                            | <ul style="list-style-type: none"> <li>- Focus groups and individual semi-structured interviews with primary and community care providers</li> </ul>                                                                                                                                                                            |

(continued)



Table 1. (continued)

| Authors                            | Study location | Study design and aim                                                                                                                                                                                                                                                         | Primary care providers                                                                        | Population                                                                                        | Method summary                                                                                                                                                                                                       |
|------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Heijnders and Meijis <sup>48</sup> | Netherlands    | Qualitative study investigating the processes and effects of an intervention in which primary care providers refer patients with psychosocial problems to a community welfare organization.                                                                                  | General practitioners, physical therapists, assistant practitioners, and psychologists        | Patients with psychosocial problems that can be addressed by non-medical resources                | Individual semi-structured interviews with patients/participants                                                                                                                                                     |
| Skivington et al <sup>46</sup>     | United Kingdom | Qualitative study to investigate the benefits of and challenges to implementing a social prescribing <sup>3</sup> program to improve inter-sectoral working to mitigate the negative effects of the social determinants of health.                                           | Community links practitioners (CLPs)                                                          | People living with negative impacts from the social determinants of health                        | Individual semi-structured interviews with CLPs and COs representatives                                                                                                                                              |
| Moffatt et al <sup>45</sup>        | United Kingdom | Qualitative study describing the experiences of patients with long-term conditions who are referred to and engage with a social prescribing program and identify the impact of the program on health and wellbeing.                                                          | General practitioners, practice nurse, healthcare assistant, or other healthcare professional | Patients with long-term conditions                                                                | Individual semi-structured interviews with patients                                                                                                                                                                  |
| White et al <sup>47</sup>          | Scotland       | Qualitative study analyzing the quality of the relationships between primary healthcare professionals and third sector practitioners to examine factors that may promote or compromise the implementation of social prescribing, as a collaboration between these 2 sectors. | Health visitors, district nurses, and general practitioners                                   | Patients with social, emotional, and/or practical problems (associated with mental health issues) | Individual semi-structured interviews with primary care professionals and third sector providers                                                                                                                     |
| Boyle et al <sup>44</sup>          | Australia      | Cross-sectional study examining differences between adults with CDs who contact consumer health organizations and those who do not and what stops people from making contact.                                                                                                | General practitioners                                                                         | Adults with CDs                                                                                   | Computer-assisted telephone interview at baseline (before randomization) with adults with CDs recruited to participate in a randomized controlled trial, using quantitative survey items and one open-ended question |
| Berkowitz et al <sup>33</sup>      | United States  | Cross-sectional study examining the association of unmet basic resource needs with medical conditions and patterns of care usage.                                                                                                                                            | Physicians                                                                                    | Patients with unmet needs and CDs enrolled in a program to link them with community resources     | Electronic patient chart review                                                                                                                                                                                      |

(continued)

**Table 1. (continued)**

| Authors                     | Study location | Study design and aim                                                                                                                                                                                                                                                                                                                                                                                    | Primary care providers                                                                                                                     | Population                                                                                                                                                                             | Method summary                                                                                                                                                                                                                                               |
|-----------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Han et al <sup>32</sup>     | United States  | Feasibility study determining whether the creation of a referral pathway between a community health center and a CO (senior center) through healthcare provider and CO's education and engagement is feasible; and identifying challenges in its scalability.                                                                                                                                           | Healthcare providers                                                                                                                       | 60+ year-old community-dwelling seniors with at least 2 chronic conditions                                                                                                             | Individual semi-structured interviews with stakeholders                                                                                                                                                                                                      |
| Lee et al <sup>38</sup>     | Canada         | Mixed method pre-post study describing the impact associated with a partnership between the Alzheimer's Society (AS) and primary care-based memory clinics for patients and caregivers, particularly their access to community-based supports and services, healthcare providers, and the health system; and identifying key lessons learned in the development and implementation of this partnership. | Healthcare providers (family physicians, registered nurses, nurse practitioners, social workers, occupational therapists, and pharmacists) | Patients with dementia and their caregivers                                                                                                                                            | <ul style="list-style-type: none"> <li>- Survey completed by providers and AS representatives</li> <li>- Individual telephone interviews with providers and AS representatives</li> </ul>                                                                    |
| Chan et al <sup>43</sup>    | Australia      | Mixed method quasi-experimental study examining the impact of a service-level intervention on the risk factor management practices of generalist community health nurses (GCHNs).                                                                                                                                                                                                                       | GCHNs                                                                                                                                      | <ul style="list-style-type: none"> <li>- Patients with lifestyle risk factors like smoking,</li> <li>- poor nutrition, at-risk alcohol consumption, and physical inactivity</li> </ul> | <ul style="list-style-type: none"> <li>- Survey completed by GCHNs at baseline, 6 months, and 12 months</li> <li>- Focus groups with the GCHNs of the intervention group</li> <li>- Semi-structured interviews with managers and project officers</li> </ul> |
| Lathren et al <sup>31</sup> | United States  | Quasi-experimental pre-post study examining the results of an interactive training and support program designed to educate primary care physicians and their staff on current evidence-based dementia clinical protocols and to link these practitioners to local dementia community resources.                                                                                                         | Physicians and affiliated staff (physician's assistant, nurse practitioner, nurse, or medical assistant)                                   | Patients living with dementia                                                                                                                                                          | <ul style="list-style-type: none"> <li>- Questionnaires pre-training and 6 months post-training</li> </ul>                                                                                                                                                   |
| Donath et al <sup>49</sup>  | Germany        | Prospective 3-arm cluster-randomized study testing whether special training of general practitioners alters the care of dementia patients through their systematic recommendation of caregiver counseling and support groups                                                                                                                                                                            | General practitioners                                                                                                                      | Patients living with dementia and their caregivers                                                                                                                                     | <ul style="list-style-type: none"> <li>- Questionnaires at baseline and 2 years post-intervention completed by caregivers</li> </ul>                                                                                                                         |

(continued)

Table 1. (continued)

| Authors                      | Study location | Study design and aim                                                                                                                                                                                                                                                                                                                                                     | Primary care providers                                | Population                                                           | Method summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ferrante et al <sup>28</sup> | United States  | Qualitative evaluation of the implementation and use of a pilot patient navigator (PN) program in 4 community practices to elicit insights into the process of establishing PN services; to understand the barriers and facilitators to PN use in the primary care setting; and to gain an in-depth understanding of patient and physician experiences of such services. | Physicians and social workers as PN                   | Patients who have a variety of complex health and/or social problems | Data obtained from project meeting notes, PN activity logs and debriefings, interviews with physicians, and interviews with patients/family members                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Kemper et al <sup>29</sup>   | United States  | Mixed methods experimental study evaluating passive and active interventions aiming to assist in the development of links between primary care practices and COs.                                                                                                                                                                                                        | All providers working in adult primary care practices | Patients with tobacco use, poor diet, and physical inactivity        | <ul style="list-style-type: none"> <li>- Patient chart audits at baseline, 3 months, and 6 months</li> <li>- Field notes from summaries of all interactions with physicians and office staff of the practices involved in passive and active interventions</li> <li>- Focus group to guide modification of the Assessing Care of Vulnerable Elders (ACOVE)-2 intervention</li> <li>- Pre- and post-intervention audits of patient medical records regarding quality indicators for dementia care</li> <li>- Individual semi-structured interviews with GPs</li> </ul> |
| Reuben et al <sup>30</sup>   | United States  | Pre-post pilot study determining whether a practice redesign intervention coupled with referral to local Alzheimer's Association chapters can improve the quality of dementia care.                                                                                                                                                                                      | Five community-based physicians in each practice      | 75+ year-old adults with dementia (Alzheimer's disease)              | <ul style="list-style-type: none"> <li>- Focus group to guide modification of the Assessing Care of Vulnerable Elders (ACOVE)-2 intervention</li> <li>- Pre- and post-intervention audits of patient medical records regarding quality indicators for dementia care</li> <li>- Individual semi-structured interviews with GPs</li> </ul>                                                                                                                                                                                                                              |
| Young et al <sup>42</sup>    | Australia      | Qualitative study investigating general practitioners' (GPs) knowledge and perceptions of consumer health organizations and their contributions to CD care.                                                                                                                                                                                                              | GPs                                                   | Patients managing chronic conditions                                 | <ul style="list-style-type: none"> <li>- Focus groups with physicians before the implementation of the redesign</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Reuben et al <sup>26</sup>   | United States  | Qualitative portion of a practice redesign study aimed at improving the quality of dementia care by creating linkages with local Alzheimer's Association chapters.                                                                                                                                                                                                       | 22 primary care physicians                            | Patients with cognitive impairment or dementia                       | <ul style="list-style-type: none"> <li>- Focus groups with physicians before the implementation of the redesign</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Wolff et al <sup>27</sup>    | United States  | Cluster-randomized controlled trial describing the development and structure of the Guided Care Program for Families and Friends as well as preliminary results and lessons learned.                                                                                                                                                                                     | Registered nurses and physicians                      | Caregivers of older adults with complex health-related needs         | <ul style="list-style-type: none"> <li>- Questionnaires administered in person at baseline and by phone at 6 months to measure depression and strain in caregivers</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                         |
| Etz et al <sup>25</sup>      | United States  | Comparative analysis of health behavior-change projects linking primary care practices with community resources.                                                                                                                                                                                                                                                         | Clinicians                                            | Patients with unhealthy behaviors                                    | <ul style="list-style-type: none"> <li>- Key measures: grant applications, site-visit reports, key informant interviews, and diary data</li> <li>- Development of a linking model</li> </ul>                                                                                                                                                                                                                                                                                                                                                                          |

(continued)



**Table 1. (continued)**

| Authors                                           | Study location | Study design and aim                                                                                                                                                                                                                                                                      | Primary care providers                                           | Population                                                                                    | Method summary                                                                                                |
|---------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Patterson, Muenchberger and Kendall <sup>41</sup> | Australia      | Qualitative study providing the perspectives of practice nurses from general practices participating in coordinated care initiatives.                                                                                                                                                     | Practice nurses, general practitioners, and service coordinators | Patients over 50 years with chronic and complex conditions                                    | - Focus group with practice nurses                                                                            |
| Fortinsky et al <sup>24</sup>                     | United States  | Pre-post study determining the impact of the Alzheimer's Service Coordination Program as a demonstration project.                                                                                                                                                                         | Physicians                                                       | Family caregivers of people with dementia                                                     | - Pre-intervention individual interview by telephone and 6 months post-intervention interview with caregivers |
| Fortinsky <sup>23</sup>                           | United States  | Cross-sectional study aiming to determine (a) prevalence and predictors of community support service referrals made by physicians for dementia patients, (b) reported barriers to ongoing management for these patients and families, and (c) preferred approaches to ongoing management. | Physicians                                                       | Patients with diagnosed irreversible dementia (Alzheimer's disease or multi-infarct dementia) | - 25-item questionnaire by mail to physicians                                                                 |
| Craven et al <sup>37</sup>                        | Canada         | Cross-sectional survey documenting the number and pattern of psychiatric and psychosocial referrals to community resources by family physicians and determining whether referral practices correlate with physician variables.                                                            | Family physicians                                                | Patients with psychosocial or psychiatric problems                                            | - Key measures: number of referrals made by types of community resources, characteristics of physicians       |
| Neary <sup>22</sup>                               | United States  | Qualitative study investigating informal supports (family and friends) and formal supports (community-based services) utilized by caregivers who had ultimately decided to admit their elderly family member to a nursing home.                                                           | Nurses                                                           | Caregivers of elderly family member recently admitted to nursing homes                        | - In-person interviews with caregivers                                                                        |

<sup>a</sup>Social prescribing: range of approaches enabling healthcare providers to connect people to non-medical resources.

**Table 2.** Summary of Linking Activities.

| Linking activity categories | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Capacity development        | <p>Knowledge development on available services<sup>25</sup> (eg, linking programs<sup>27,29-31,33</sup> or local COs<sup>32,49</sup>)</p> <p>Participation in training on COs' purpose,<sup>31,33</sup> potential benefits,<sup>29,31</sup> effective assessment,<sup>30,31,43,50</sup> linking activities' processes,<sup>31,33,43</sup> and referral methods<sup>30,43</sup></p> <p>Training in partnership with certain COs<sup>43</sup></p> <p>Knowledge sharing between healthcare providers<sup>41</sup></p> <p>Clarification of the expected roles of healthcare providers and COs<sup>28,31</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Patient identification      | <p>Pre-established patient eligibility criteria<sup>28</sup>: age,<sup>30,32,34</sup> risk factors,<sup>25,43</sup> symptoms or diagnosis of CD,<sup>24,30,32,34,38,42</sup> degree of functional autonomy,<sup>22</sup> and patients' and families' needs<sup>22,24,33,34,38,40,47,48</sup></p> <p>Quick and systematic process<sup>25,30</sup></p> <p>Done by healthcare providers<sup>24,28,33,34,38,47</sup></p> <p>During routine follow-ups,<sup>27,30,33,43,48</sup> medical evaluations,<sup>48</sup> or simple verbal exchanges with the patient<sup>40</sup></p> <p>With questionnaires or evaluation forms<sup>30,33</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Assessment                  | <p>Comprehensive holistic<sup>34,48</sup> process with the patient<sup>26,34,43</sup> to assess and understand needs,<sup>30,36</sup> including those not apparent during the identification stage,<sup>33</sup> strengths, concerns, patient's/family network,<sup>24,27,28,35,45,48,49</sup> and gather other relevant information<sup>30</sup></p> <p>Done by a healthcare provider,<sup>24,26-28,30,33,43,48</sup> a CO or linking program member,<sup>31,34,36,38,45,48,49</sup> or a multidisciplinary team<sup>26,35,38,41</sup></p> <p>Standardized evaluation form<sup>24,36,43</sup> integrated into the routine evaluation<sup>43</sup></p> <p>Done individually with the patient<sup>26,27,33,34,36,43,45,47</sup> and their entourage<sup>24,27,28,31,48,49</sup> or during a joint appointment,<sup>35</sup> during a face-to-face meeting,<sup>45</sup> by telephone,<sup>28,45,49</sup> email, or text message,<sup>45</sup> at the primary care clinic,<sup>28,41,43,44,47</sup> community center,<sup>45,47</sup> or patient's home<sup>26,28,31,34,35,41,45,48</sup></p>                                                                                                                                                                                                                                                           |
| Information                 | <p>Done by a healthcare provider or linking partner while discussing potential services with the patient<sup>27,38,39,48</sup></p> <p>Also to discuss available services for the patient's network<sup>22,27,49</sup></p> <p>Based on the assessment linking activity<sup>38</sup> and specific to the healthcare provider's management approach to CDs<sup>42</sup></p> <p>Evaluation form used during the assessment or standardized referral forms<sup>24</sup> can help tailor the educational process to the patient's needs<sup>30</sup></p> <p>COs' pamphlets or business cards available for patients and their families, in waiting rooms or during appointments<sup>25, 29-31, 48,49</sup></p> <p>Information and communication technologies used as educational tools<sup>25,27</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Planning                    | <p>With the provider or linking partner, the patient and their family,<sup>22,24,25,28,31,34,35,38,42,45,47-49</sup> and possibly a multidisciplinary or interdisciplinary team<sup>26,35</sup> to recognize the presence of needs</p> <p>Eligible services identified to establish and coordinate actions through a service plan by discussing needs, strengths, and motivation<sup>22,24,25,28,30,33-36,38,41,42,47-49</sup></p> <p>Meeting at the clinic or the patient's home<sup>34,39,48</sup></p> <p>Based on earlier assessment to guide the meeting<sup>24,34,35</sup></p> <p>Number of services needed, availability, or accessibility of services considered<sup>28,31</sup></p> <p>Holistic patient-centered approach promoting the patient's self-management of COs' services<sup>34,40,45</sup></p> <p>Built on the positive relationship between primary care providers and patients<sup>39</sup></p> <p>Potential barriers to services are assessed<sup>48</sup></p> <p>Planning of services for the patient's support network<sup>22,31,42</sup></p> <p>Patient's decision whether to approach COs for their services<sup>32,48</sup></p> <p>Use of motivational interviewing or other habit-changing approaches to encourage use of COs' services<sup>45</sup></p> <p>Frequency of upcoming encounters established<sup>45</sup></p> |
| Referral                    | <p>Goal: To facilitate patients' access to COs<sup>28,38,45,46</sup></p> <p>Based on the needs and motivation of the patient<sup>45</sup></p> <p>Direct or indirect (ie, made by the healthcare provider or by the patient following advice from the healthcare provider)<sup>28,37,49</sup></p> <p>Carried out early and in a sustained manner during CD management<sup>35</sup></p> <p>Primary care clinics used as an entry point and other organizations as the linking point (eg, linking programs)<sup>27,31,33,35,38,42,45,46,48</sup></p> <p>Between primary care and COs,<sup>28,29,37,42</sup> primary care and linking programs,<sup>24-27,30,31,33,35,38,40,45,46,48</sup> or patients/entourage and COs with support from healthcare providers<sup>29,32,37,39</sup></p> <p>Tools: Use of medical files,<sup>25,33</sup> referral forms (paper or electronic),<sup>24,25,29,30,39</sup> pamphlets,<sup>29,32</sup> online tools and electronic references,<sup>25,29,31,39</sup> interactive or non-interactive telephone calls,<sup>25,39,48</sup> emails,<sup>33,48</sup> or a coordinator<sup>25,40</sup></p> <p>Type of referral: social prescribing<sup>47</sup></p> <p>Standardized referral trajectories to link patients meeting eligibility criteria<sup>43</sup></p>                                                           |

(continued)

**Table 2. (continued)**

| Linking activity categories | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Follow-up                   | <p>During the same appointment as for the assessment<sup>27</sup></p> <p>On a regular basis following the implemented services<sup>45,48</sup></p> <p>Via telephone, text message, in person (at the clinic or at home), or email<sup>24,31,33,38,45</sup></p> <p>Helpful when collected information is entered in the patient's medical file (notes, information provided, service plan, and other relevant information)<sup>24,30</sup></p> <p>Other healthcare providers involved in the patient's care informed of actions performed and services established<sup>24,26-28,35,38,41</sup></p> <p>With patients and families to validate or adapt services according to emerging needs and barriers<sup>22,24,26,27,34,43,46</sup></p> <p>Spaced-out follow-up with the patient to promote autonomy in care management<sup>34,45</sup> or done more periodically after exacerbation of symptoms or difficult periods<sup>27,34,45</sup></p> <p>By several people involved in the patient's care (eg, CO, attending physician, or nurse) during routine appointments and when needed<sup>22,24</sup></p> <p>Update of information and diagnosis when sharing information on communication platforms between stakeholders<sup>48</sup></p> <p>When referral is done by a CO or linking program, transfer the patient's information to the primary healthcare providers in charge to act as a bridge between the CO and the patient<sup>35</sup></p> <p>Healthcare provider remains available to answer questions or concerns<sup>27</sup> and allows for patient's long-term involvement<sup>46</sup></p> |
| Collaboration               | <p>Interdisciplinary network and collaboration between all primary care providers<sup>26,28,31,33,35,36,41</sup></p> <p>Support offered by more experienced healthcare providers<sup>28,30</sup></p> <p>If no provider is designated for linking activities, all providers should work together to ensure the service offering<sup>39</sup></p> <p>Physician acting as a central point for interprofessional and intersectoral collaboration by adding relevant actors to the patient's record<sup>42</sup></p> <p>Collaboration between the healthcare provider/linking program and the patient/family during the planning stage<sup>24,34,35</sup></p> <p>Collaboration between providers and COs during linking activities to promote intersectoral collaboration and integration of services from various settings<sup>30,32,35,46,48</sup></p> <p>Intersectoral collaboration: Building a relationship before referral, sharing relevant information, and/or following up after the service has been established<sup>25</sup></p> <p>Continuous collaboration between primary care and linking programs<sup>24,27,36,38,40,41,46</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

### Influencing Factors

Multiple intrinsic and extrinsic factors were listed in the studies as influencing linking activities. These factors can stem from personal characteristics of the providers and patients, providers' professional practice, work environments, partnerships, and contextual influences. They may have a positive or negative impact on the practice of these linking activities, depending on whether they can be adapted to local circumstances. Table 3 lists examples of factors for each category.

### Discussion

To our knowledge, this study presents a first literature synthesis detailing linking activities practiced by primary healthcare providers with COs in a CD management context, and their influencing factors.

#### Adapting Interprofessional Collaboration

Beyond the linking activities of each provider, interprofessional collaboration allows to extend beyond the scope of the primary healthcare provider's expertise to provide more comprehensive linking activities. This interdisciplinary approach aligns with the positive impacts that collaboration

in primary care settings can have on patients' well-being and clinical outcomes in a CD management context.<sup>51-54</sup> During the consultation phase, experts highlighted that the complexity associated with the patient's needs and care management influences the level of interprofessional collaboration required. Thus, for each category of linking activities, barriers may arise as the complexity of the clinical situation increases, requiring more interprofessional concertation to ensure an effective implementation of activities. Although linking activities were generally similar across studies, the level of detail, operationalization, and which healthcare provider practiced which activity varied and was not always explicit. This understanding would be useful for better organizing linking activities from a teamwork perspective.

#### Prioritizing Local Influencing Factors

Significant variability was also observed in influencing factors. The diverse needs of patients and the preferences of healthcare providers can influence linking activities.<sup>50</sup> The consulted experts proposed that the local context is directly linked to these influencing factors. Leach et al<sup>55</sup> noted that several factors can act as facilitators or barriers in an interdisciplinary context. However, factors internal to the practice can often become facilitators since they can be more

**Table 3.** Summary of Factors Influencing Linking Activities.

| Influencing factor categories and subcategories | Examples of factors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal characteristics                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Healthcare providers                            | Personality <sup>41</sup><br>Personal beliefs <sup>41</sup><br>Desire to be involved <sup>41,43</sup><br>Role expectations <sup>43,47</sup><br>Perceived quality of their practice and of the usefulness of linking activities <sup>25,26,47</sup><br>Knowledge of COs' services <sup>23,25,26,31,32,38,40</sup><br>Capacity to seek out needed information <sup>47</sup><br>Year of graduation (more referrals by recent graduates) <sup>37</sup><br>Gender (more referrals by men) <sup>37</sup><br>Years of experience with linking activities <sup>23</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Patient                                         | Refusal or denial associated with early stages of CDs <sup>26,30,40,44</sup><br>Patient's desire for change <sup>42</sup><br>Unexplained refusals <sup>22</sup><br>Financial resources, education, and physical abilities <sup>22,34,40</sup><br>Social, emotional, and neurocognitive capacity <sup>34,40</sup><br>Openness toward linking activities <sup>25,43</sup><br>Involvement in disease management <sup>39</sup><br>Capacity to obtain COs' services (knowledge, time, and autonomy) <sup>22</sup><br>Level of illness impacting adherence to the referral process <sup>22,44</sup><br>Complexity of diagnosis and environment <sup>42,44</sup><br>Stability in the disease progression <sup>40</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Providers' professional practice                | Expectations regarding the provider's role (caring vs curing) <sup>28,29,42,47</sup><br>Traditional role versus holistic CD management <sup>42,43,47</sup><br>Possibility of early, proactive, and continuous practice in linking activities <sup>30,38,42</sup><br>Availability of training on introducing linking activities to patients <sup>30,39</sup><br>Systematic practice <sup>30,32,39,42,44,49</sup><br>Training accredited by professional associations <sup>26</sup><br>Level of importance given to patients' needs, goals, and strengths <sup>34,40</sup><br>Workload level <sup>34</sup><br>Access to a linking activity guide (eg, description of services, summary for patients, referral trajectory, and standardized forms) <sup>32,34</sup><br>Time allowance to support patients' options <sup>22,32,39,44</sup><br>Perception of linking activity-related workload (additional load vs part of clinical role) <sup>36,47</sup><br>Integration of linking activities into providers' current role and area of expertise <sup>41,47</sup><br>Recognition of the provider's role <sup>41</sup><br>Performance of clinical activities fostering COs' knowledge (eg, care plan consultation or patient visits) <sup>24</sup><br>Delegation of linking activities to an external organization <sup>23,47</sup><br>Referral to medical services rather than support services <sup>23</sup><br>Prioritization of the patient's physical needs over psychosocial needs <sup>47</sup><br>Limitation on over-involvement during linking activities <sup>28</sup><br>Regular follow-ups and adjustments <sup>36</sup> |
| Work environment                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Primary care                                    | Allowance of clinical time for linking activities <sup>23,25,29,32,38,41-43</sup><br>Knowledge, skills, and positive outlook development through practice encouragement <sup>30,32,43</sup><br>Administrative workload <sup>29,40</sup><br>Standardized referral forms, support, and time allowed for providers <sup>25-27,29,32,34,38,39,41</sup><br>Access to informative material for providers (eg, pamphlets, instruction sheets, or web links) <sup>29</sup><br>Access to supporting staff and up-to-date knowledge on management of patient's needs <sup>23</sup><br>Capacity development due to a larger number of PCDs in providers' caseloads <sup>23</sup><br>Frequency of assessment of providers' caseload <sup>23,43</sup><br>Differences in primary care and COs' organizational culture <sup>36</sup><br>Promotion of prevention and coordination of care versus crisis management <sup>40</sup><br>Assignment of linking activities to 1 individual (eg, a healthcare provider or a link worker) <sup>40</sup><br>Personal space for external link workers inside the clinic <sup>28</sup><br>Identification of local COs and production of a standardized guide for providers <sup>25,47</sup><br>Restricted number of COs that patients can be referred to (for in-depth capacity development) <sup>25</sup><br>Staff retention and turnover <sup>25</sup>                                                                                                                                                                                                                                                    |

(continued)

**Table 3. (continued)**

| Influencing factor categories and subcategories | Examples of factors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COs                                             | <p>Costs, staff turnover, and lack of desire to collaborate with primary care<sup>25,29,38,44,46</sup></p> <p>Ability to meet the service requests<sup>25,26,43,46</sup></p> <p>Transparency about the ability to meet patient needs<sup>46</sup></p> <p>Access to documents, pamphlets, or online sites to explain their services and referral process<sup>34</sup></p> <p>Access to information on the quality of COs' services<sup>42,47</sup></p> <p>Location and accessibility of COs' services (eg, via the clinic)<sup>32</sup></p> <p>Offer for free transportation for patients to COs<sup>43</sup></p> <p>Access to external organization, online site, or web portal for information and referrals to local COs<sup>25,38,46</sup></p> <p>Delay of time to access services out of sync with the patient's needs<sup>40</sup></p> <p>Restrictive eligibility criteria<sup>40,44</sup></p> <p>Constant changes in service offering<sup>40</sup></p> <p>Long-term services accessibility for patients<sup>45</sup></p> <p>Access to services tailored to patients' needs<sup>25,45</sup></p> <p>Improvement of services by addressing barriers identified by providers<sup>40</sup></p>                                                                                                                                                                                                                                                                   |
| Partnerships                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Patient and healthcare providers                | <p>Meetings between caregivers and the care team<sup>34</sup></p> <p>Development of a relationship between providers and patients to facilitate open discussions<sup>39</sup></p> <p>Collaboration between the provider, the patient, and their family to identify needs and present services<sup>40</sup></p> <p>Resistance during the identification of needs from the provider and the patient<sup>25</sup></p> <p>Patients relying on their relationship of trust with their provider<sup>48</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Healthcare providers and CO                     | <p>Two-way collaboration<sup>24-26,30,34,40</sup></p> <p>Clarification of expected involvement<sup>23,27,31</sup></p> <p>Access to a standardized communication model<sup>39,40</sup></p> <p>Use of a confidentiality form<sup>38</sup></p> <p>Prioritization of COs over other institutions when relevant<sup>36,40</sup></p> <p>COs' workers' availability for collaboration with healthcare providers<sup>46</sup></p> <p>Cultural differences<sup>36</sup></p> <p>Unclear nature of the relationship<sup>36</sup></p> <p>Nurtured personal relationships<sup>28,36,46</sup></p> <p>Omission of COs in primary care's service offering<sup>36</sup></p> <p>Identification of a person to contact in a CO<sup>40,47</sup></p> <p>An individual with a foot in both sectors<sup>25,28,36,46</sup></p> <p>Desire to maintain a relationship between the 2 sectors<sup>25</sup></p> <p>Joint meetings and a space for COs' workers at the clinic<sup>28,36,38,42,46</sup></p> <p>Identification of 1 provider in charge of COs' referrals and communication<sup>23,28,31,42</sup></p> <p>Building a relationship of trust and meeting COs' workers in primary clinics<sup>25,40,47</sup></p> <p>Organizational collaboration to reduce stigma associated with COs<sup>38</sup></p> <p>Collaboration to address a wider range of patients' needs<sup>42</sup></p> <p>Collaboration for providers' knowledge development about local services<sup>38,40,47</sup></p> |
| Patient and CO                                  | <p>Lack of communication<sup>22</sup></p> <p>Ease of reaching organizations<sup>44</sup></p> <p>Patient's awareness of divergence of opinion between the CO's worker and the provider<sup>42</sup></p> <p>Self-catered relationship<sup>42</sup></p> <p>Empowering, neutral, patient-centered relationship associated with external link workers<sup>45,48</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Healthcare providers                            | <p>Prioritization of collaboration<sup>28,35,38,41,42,46</sup></p> <p>Recognition of everyone's role and promotion of interprofessional collaboration in a clinical setting<sup>28,38</sup></p> <p>Team-based coordination of care<sup>28,41,46</sup></p> <p>Acknowledgment of the social role of some providers by the managing doctor<sup>41</sup></p> <p>Number of providers collaborating<sup>28</sup></p> <p>Collaboration with more experienced providers<sup>35,41,46</sup></p> <p>Team members' familiarity with COs' services<sup>29,30,33</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Contextual influences                           | <p>Pre-established criteria to receive monetary exemption for COs' services or access to suitable transportation<sup>35,40</sup></p> <p>State of the economy (investments in healthcare and community services)<sup>41</sup></p> <p>Demands exceeding the capacity to provide the services<sup>46</sup></p> <p>Policy restrictiveness by healthcare systems regarding counseling and role of support in primary care<sup>39</sup></p> <p>Duality in healthcare paradigms ("treating" vs "taking care")<sup>48</sup></p> <p>Involvement of multiple specialties from the healthcare network in the management of patients' needs<sup>40</sup></p> <p>Type of electronic communication throughout the healthcare network<sup>39</sup></p> <p>Reimbursement for COs' services (patients' personal insurance or government programs)<sup>25,26,35</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |



easily managed than external contextual factors. Therefore, it might be relevant for primary healthcare providers and managers to first focus on managing influencing factors that are specific to their local practices.

### Strengths and Limitations

The study was conducted rigorously, following the 6 steps of the scoping review methodology including the consultation step, which enriched the synthesis. Despite the strengths of this study, some limitations should be considered. Firstly, only articles accessible in the selected databases and languages were consulted, with no search conducted in gray literature. Finally, the description of linking activities and influencing factors is based on the information presented in the selected studies. Some concise or absent information may have affected our interpretation.

### Future Research

Future studies on primary care linking activities between PCDs and COs should explicitly describe interventions and the role of each provider, as well as explore solutions to overcome barriers in practice. Additionally, gaining a better understanding of the phenomenon from the perspective of COs would allow a better understanding of the current issues and their expectations for this intersectoral collaboration.

### Conclusion

The description of primary care providers' linking activities between PCDs and COs shows an holistic practice that includes patients in the decision making process and that can potentially overcome chronic care complexity by fostering collaboration and constant involvement of all actors at the primary care and community levels. While expected involvement from each primary care provider and strategies to address barriers could be more detailed to facilitate liaison, practices and governments should also be more involved to support collaboration between various providers and adapt policies to local circumstances.

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### Supplemental Material

Supplemental material for this article is available online.

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