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ORIGINAL ARTICLE

Working on working together. A systematic review on how healthcare professionals contribute to interprofessional collaboration

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ABSTRACT

Professionals in healthcare are increasingly encouraged to work together. This has acted as a catalyst for research on interprofessional collaboration. Authors suggest developing interprofessional collaboration is not just the job of managers and policy makers; it also requires active contributions of professionals. Empirical understanding of whether professionals make such contributions and if so, how and why, remains fragmented. This systematic review of 64 studies from the past 20 years shows there is considerable evidence for professionals actively contributing to interprofessional collaboration. Although the evidence is limited, we can show they do so in three distinct ways: by *bridging* professional, social, physical and task-related *gaps*, by *negotiating overlaps* in roles and tasks, and by *creating spaces* to be able to do so. Professionals from different professions seem to make different contributions. Moreover, differences exist between collaborative settings and healthcare subsectors. We conclude by proposing a research agenda to advance our understanding of these contributions in theoretical, methodological and empirical ways.

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Interprofessional collaboration; healthcare; professionals; professionalism; systematic review

Introduction

Healthcare professionals such as doctors and nurses are increasingly encouraged to work together in delivering care for patients (Leathard, 2003; Plochg, Klazinga, & Starfield, 2009). They do so in diverse settings, such as emergency department teams in hospitals, grassroots networks in neighborhood care and within formalized integrated care chains (Atwal & Caldwell, 2002; Bagayogo et al., 2016). The increasing number of interprofessional practices has led to a sharp rise in academic interest in the subject of interprofessional collaboration (Paradis & Reeves, 2013). Societal expectations of its effects on quality of care are high. However, diverse challenges and barriers, such as distinct professional domains and separate IT systems, hinder achieving smooth collaboration (Hall, 2005; Lingard et al., 2017; Suter et al., 2009).

Multiple authors have tried to formulate the necessary facilitators for collaboration to occur (D'Amour, Goulet, Labadie, San Martín-Rodriguez, & Pineault, 2008; San Martin-Rodriguez, Beaulieu, D'Amour, & Ferrada-Videla, 2005). These include the importance of adequate organizational arrangements such as clear common rules and suitable information structures as well as time, space and resources enabling professionals get to know each other and to discuss issues that arise. Also, some authors propose the importance of an open and receptive professional culture, a willingness to cooperate and communicating openly (D'Amour et al., 2008; Nancarrow et al., 2013). Such models are framed as a challenge for healthcare managers to promote and facilitate the necessary conditions (Bronstein, 2003; Valentijn, Schepman, Opheij, & Bruijnzeels, 2013).

This focus on necessary conditions has led others to argue that the part professionals *themselves* play in fostering collaboration is not yet well understood (Croker, Trede, & Higgs, 2012; Mulvale, Embrett, & Razavi, 2016; Nugus & Forero, 2011). Petrakou (2009, p. 1) for instance argues working together is much more than "policies, strategies, structures and processes", as "in their daily work, [healthcare professionals] cooperate and coordinate their activities to get the work done". Edwards (2011) for instance highlights interprofessional boundaries, but focuses on the active boundary work by which professionals build common knowledge during team meetings. A better understanding of their collaborative work is needed to understand the dynamics and evolution of interprofessional collaboration.

However, such contributions by professionals have not yet received adequate academic attention (Nugus & Forero, 2011; Tait et al., 2015, see also Barley & Kunda, 2001). The insights that exist remain fragmented. Studies are embedded in multiple research fields (e.g. public management (Postma, Oldenhof, & Putters, 2015), medicine (Goldman et al., 2015) and nursing (Hurlock-Chorostecki et al., 2016) and published in diverse journals using distinct theoretical perspectives (Reeves et al., 2016). Also, studies typically focus on single cases or zoom in on interprofessional collaboration from the perspective of a single profession.

In this paper we report on a systematic review (Cooper, 2010) with the aim to take stock of the available yet disjointed empirical knowledge base on active contributions by healthcare professionals to interprofessional collaboration. We focus

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on the research question: *in what ways and why do healthcare professionals contribute to interprofessional collaboration?* In doing so, we also focus on differences between professions and specific collaborative contexts, and on evidence of the effects of their contributions.

We contribute to the literature in three ways. First, this review adds overview to the fast-growing field of interprofessional collaboration. Existing reviews (e.g. Maslin-Prothero & Bennion, 2010; San Martin-Rodriguez et al., 2005; Xyrichis & Lowton, 2008) do not focus on the topic of this article. Second, we develop a conceptualization of professional contributions through inductively analyzing our review data. Building on this conceptualization, thirdly, our article provides an empirically informed research agenda.

We continue by first providing the theoretical background for the focus of this review. Second, we describe our research strategy and methods, adhering to the 'Preferred Reporting Items for Systematic Reviews and Meta-Analysis' (PRISMA; Liberati et al., 2009; see online supplementary material). Third, we present the results of the review. The final sections summarize our conclusions and formulate a research agenda.

Background

Interprofessional collaboration

Interprofessional collaboration is often defined within healthcare as an active and ongoing partnership between professionals from diverse backgrounds with distinctive professional cultures and possibly representing different organizations or sectors working together in providing services for the benefit of healthcare users (Morgan, Pullon, & McKinlay, 2015).

Simultaneously, a substantial "semantic quagmire" (Perrier, Adhihetty, & Soobiah, 2016, p. 269) exists in the literature regarding the use of the concepts 'interprofessional' and 'collaboration'. We use 'interprofessional collaboration' as an ideal typical state that can be distinguished from other forms of working together (Reeves, Lewin, Espin, & Zwarenstein, 2010). Working *interprofessionally* implies an integrated perspective on patient care between workers from different professions involved. Working *collaboratively* implies smooth working relations in the face of highly connected and interdependent tasks (Haddara & Lingard, 2013; Leathard, 2003; Reeves et al., 2016).

Interprofessional collaboration is often equated with healthcare teams (Reeves et al., 2010). Increasing evidence suggests that the notion of teamwork is often not adequate to describe empirical collaborative practices. Such practices include for instance "networks of electronic collaboration among the healthcare professionals caring for each patient" (Dow et al., 2017, p. 1) and grass-roots networks that form around individual patients (Bagayogo et al., 2016). Interprofessional collaboration is therefore to be positioned as an ideal typical way of working together that can occur within multiple settings in different ways (Reeves, Xyrichis, & Zwarenstein, 2017).

Professionals and interprofessional collaboration

Several authors have theorized the necessary preconditions for interprofessional collaboration to occur (e.g. D'Amour et al., 2008; McCallin, 2001). What their theoretical models do not account for, however, is how collaboration develops over time. How does, for instance, an internalized awareness among professionals emerge? Or how and why are adequate governance arrangements created and responsibilities rearranged? In trying to account for this, attention usually lies on "external and structural factors such as resources, financial constraints and policies" (D'Amour et al., 2008, p. 2). In other words, it is seen to be the job of managers and policy makers.

This emphasis on external and managerial influences to understand the development of interprofessional collaboration can be questioned. Firstly, literature on collaborative processes within and between organizations (Gray, 1989) shows that to understand how collaboration occurs and why it works out or not, it is important to pay attention to the 'doing' of collaboration (Thomson & Perry, 2006). By this, authors argue for a focus on the actions of the actors involved in collaborative processes to understand these processes.

Secondly, a similar argument is made by authors in the study of professional work (Noordegraaf, 2015). It is argued that contemporary societal and administrative developments change the context for service delivery. Such developments pose challenges for professionals and necessitate that they collaborate. Noordegraaf and Burns (2016, p. 112), for instance, argue it requires them "to break down the boundaries that separate them, […] to develop collaborative models and joint decision-making with other professionals, and encourage their colleagues to participate". In this line of reasoning, organizing service delivery is not just a task for managers or policy makers, it can also be interpreted as an inherent part of professional service delivery itself, as something professionals *themselves* will have to deal with.

An increasing number of studies indeed focus on how professionals act on the challenges of collaborative working (Franzén, 2012; Gilardi, Guglielmetti, & Pravettoni, 2014). This empirical work is embedded in different research fields. Whereas studies on interprofessional collaboration within the field of medicine and healthcare are sometimes criticized for their lack of conceptual and theoretical footing (Reeves & Hean, 2013), studies within (public) management and organizational sciences are heavily conceptualized. Such studies rely on concepts such as articulation work (Abraham & Reddy, 2013), organizational work (Nugus & Forero, 2011), emotional work (Timmons & Tanner, 2005), boundary work (Franzén, 2012) and even invisible work (Hampson & Junor, 2005). Such concepts help to deepen theoretical understanding, but their use also provides challenges in analyzing the current state of knowledge. It provided the rationale for this systematic review.

Methodology

To limit subjectivity of our review, we adhere to the systematic literature review methodology outlined by Cooper (2010). It provides the tool to offer a structured transparent overview of empirical evidence in the face of diverse theoretical conceptualizations.

Search strategy

Our search strategy consists of four elements. First, we conducted electronic database searches of Scopus and Web of Science (January – May 2017) and Medline (May 2019). We chose our keywords based on the review of terminology in the literature on interprofessional collaboration by Perrier et al. (2016). We performed the following search:

- One of the following: [interprofessional], [inter-professional], [multidisciplinary], [interdisciplinary], [interorganizational], [interagency], [inter-agency], AND
- One of the following: [collaboration], [collaborative practice], [cooperation], [network*], [team*], [integrat*], AND
- One of the following: [healthcare], [care], AND
- [professional].

Second, we searched specific journals, based on the number of relevant studies in the electronic database search: *Journal of Interprofessional Care, Social Science & Medicine, Journal of Multidisciplinary Healthcare* and *International Journal of Integrated Care*. Third, we used the references of relevant studies and reviews to find additional studies. Fourth, we asked four experts on interprofessional collaboration, public management and healthcare management to provide us with additional studies.

Eligibility criteria

We used the following criteria to include only relevant studies:

- *Focus of study*: Studies are conducted within the context of interprofessional collaboration, as defined above. Studies deal with actions of professionals that are seen to contribute to interprofessional collaboration.
- *Field of study*: Studies are conducted within healthcare.
- *Study design*: We included only empirical studies. We included all empirical research designs.
- *Publication status*: To safeguard research quality, only studies published in peer-reviewed journals were included.
- *Language*: For transparency reasons, only studies written in English were included.

Selection process

Figure 1 describes the selection process that was conducted by the first author. After checking for relevance and duplicates based on title and abstract, 270 unique studies were identified as potentially relevant. These were read in full and screened on eligibility criteria. This led to the inclusion of 64 studies. Excluded articles either do not deal with an empirical study or focus, for instance, on interprofessional education instead of interprofessional collaboration (Curran, Sharpe, & Forristall, 2007) or on passive attitudes rather than active behaviors (Klinar et al., 2013).

Diverse use of terminology within the literature (Perrier et al., 2016) provided a challenge to include all yet only relevant studies. This is a returning problem in systematic reviews of mainly qualitative studies (De Vries, Bekkers, & Tummers, 2016). To cope with this, we used a broad search strategy, including multiple search terms that are often used within the literature, combined with the eligibility criteria presented above. Manually scanning the many abstracts and full texts could have induced subjectivity. Therefore, possible eligible studies were re-examined after an extended period to reduce this risk. Several studies were excluded after a second reading.

Analysis

We coded relevant fragments from the included studies. This resulted in 166 fragments, each describing a distinct action by one or more professionals seen to contribute to interprofessional

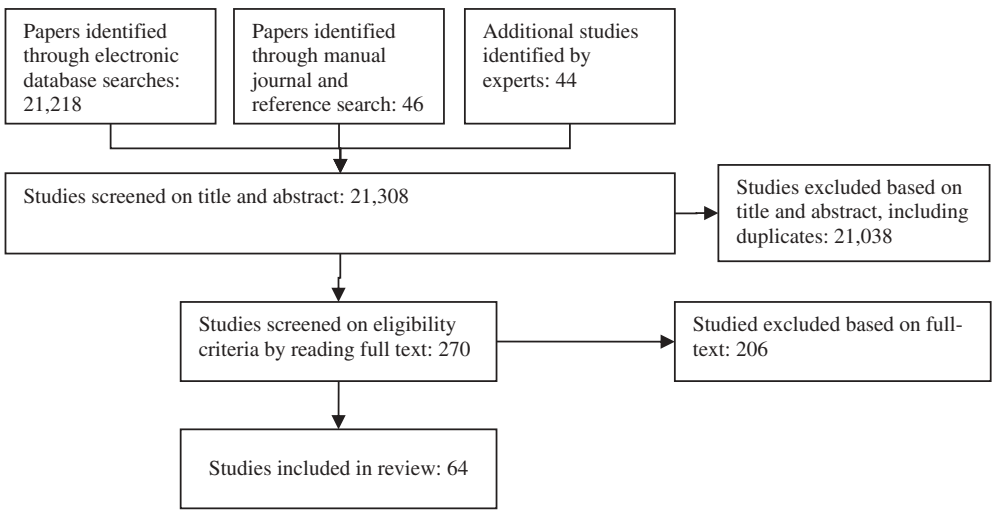

Figure 1. Flow diagram of the search strategy.

collaboration. Fragments are either direct quotes from respondents or observations formulated by researchers based on empirical data.

To cope with diverse conceptualizations during the coding process, we used an inductive coding strategy (Cote, Salmela, Baria, & Russel, 1993). These codes were based on comparing the fragments in our dataset. Emerging categories were discussed among the authors on a number of occasions. We adhered to a step-by-step approach of modifying and rearranging categories until a satisfactory system emerged (Cote et al., 1993).

Results

Record characteristics

Here, we describe the characteristics of the studies in our review. An overview of all 64 studies is provided as online supplementary material. Firstly, studies have been published in a wide range of research domains highlighting the fragmented knowledge. All studies have been published in peer-review journals. Most common are journals within the fields of healthcare management (26; 40,6%), nursing (12; 18,8%) and organizational and management sciences (5; 7,8%). The *Journal of Interprofessional Care* is the most prominent journal with 16 articles (25,0%).

All studies have been conducted in Western countries, primarily Canada (23; 35,9%) and the UK (19; 29,7%) and are single-country studies. The studies in our review were published from 2001 onwards, with the majority (47; 73,4%) published in the 2010s.

Almost all studies make use of a qualitative research design (Table 1). Most of these use (informal) interview and observational data. Only four studies use either quantitative methods (social network analysis; Quinlan & Robertson, 2013) or multi-method designs, such as a mixed-method experiment design (Braithwaite et al., 2016).

Studies are predominantly executed in hospital care (29; 45,3%), such as intensive care units (Conn et al., 2016) and emergency departments (Nugus & Forero, 2011). Also, multiple articles focus on cross-sector collaborations (12; 18,8%) and primary and neighborhood care settings (9;14,1%). Five studies (7,8%) focus on multiple cases within different subsectors (Table 2).

Table 1. Study designs in review.

Study design	Number (%)
Qualitative design	60 (93,8%)
Mixed-method design	3 (4,7%)
Quantitative design	1 (1,6%)
Total	**64**

Findings

This section analyses our findings. First, we describe the ways in which professionals are observed to contribute to interprofessional collaboration. We bring evidence together under three conceptual categories: *bridging gaps, negotiating overlaps* and *creating spaces*. Second, we analyze whether contributions differ between professions and between collaborative settings and healthcare subsectors. Third, we analyze what data are available on the effects of professional contributions.

Professional contributions: bridging gaps, negotiating overlaps and creating spaces

By inductive coding of fragments, three distinct categories emerged from the dataset. All fragments could be clustered in one of these categories. We labeled them *bridging gaps, negotiating overlaps and creating spaces*. Below we discuss each category and provide examples for each of them.

1. Bridging gaps

The first and most prominent category is about *bridging gaps* (87 fragments; 52,4%). The fragments in this category show professionals actively overcoming gaps between themselves and other professionals. These gaps differ in nature. Our findings show professionals deal with at least four types of gaps.

The first type of gap exists between *professional perspectives*. This type of gap appears to be about overcoming different professional views on how best to treat patients. This requires active work to get familiar with other knowledge bases and other professional values and norms. For example, Falk, Hopwood, and Dahlgren (2017) show professionals in a rehabilitation unit at a university hospital are involved in questioning each other to explore each other's area of expertise. Also, Chreim, Langley, Comeau-Vallée, Huq, and Reay (2015) report on how psychiatrists have their diagnoses and medication prescriptions debated by other professionals. Some studies highlight efforts to overcome different professional views by envisioning interprofessional care together by creating "communal stories that help diverse stakeholder groups [represented in the team] to develop a sense of what they have in common with each other" (Martin, Currie, & Finn, 2009, p. 787).

The second type of gap professionals are observed to bridge is *social*. Working together can require communicating cautiously or strategically in the light of diverse personalities and communication preferences. Multiple studies use the concept of 'emotion work' (Timmons & Tanner, 2005) to describe these behaviors. In building a cancer care network, Bagayogo et al. (2016) describe, for instance, how nurse

Table 2. Healthcare (sub)sectors represented in review.

Sub-sectors	Number (%)	Example
Hospital care	29 (45,3%)	Intensive care team (Reeves et al., 2015)
Cross-sectoral	12 (18,8%)	Distributed heart failure teams (Lingard et al., 2017)
Primary and neighborhood care	9 (14,1%)	Primary health teams (Quinlan & Robertson, 2012)
Mental health care	4 (6,3%)	Substance abuse care (Sylvain & Lamothe, 2012)
Cases in multiple subsectors	5 (7,8%)	Acute care and elderly home care (Hurlock-Chorostecki et al., 2015)
Other	5 (8,2%)	Dental care (Franzén, 2012)
Total	**64**	

navigators employ an informal and tactful approach, frequently interacting with others to build and consolidate the network they are involved in. Ellingson (2003) reports how personal life talk (e.g. on families and vacations) and professional troubles talk (e.g. complaining about scheduling) can be seen to enhance collegial relations. Others highlight how the discursive practice of using pronouns 'we' and 'they' constructs a team feel (Kvarnström & Cedersund, 2006). Goldman et al. (2015) report how professionals organize informal social get-togethers to improve personal relations.

The third type of gap that is bridged exists between *communicational divides*. Professionals actively bridge communication divides caused mainly by geographical fragmentation. Bridging is about actively transferring knowledge or information from one professional to another, as well as about making oneself available to others. Currie and White (2012) observe how nurses liaise with other professionals through actively relaying medical information. This often requires translating this information from one professional jargon to another (Dahlke & Fox, 2015). Another example shows how nurses 'translate' medical instructions from physicians for other nurses, patients and allied health professionals by making medical language and terms understandable (Williamson, Twelvetree, Thompson, & Beaver, 2012).

The last type of gap that is bridged is about *task divisions*. Professionals are observed to conduct tasks that are not part of their formal role and help other professionals. Fiordelli, Schulz, and Caiata Zufferey (2014, p. 320) show how nurses help overburdened medical residents (MR) on their unit. Nurses describe how they "anticipate and […] take blood for these tests even if the MR does not say to do so" to prevent gaps in service delivery. Similarly, physicians are observed to take over tasks of nurses in crisis situations (Reeves et al., 2015). Also, Gilardi et al. (2014) show how nurses in emergency departments act as 'memory keepers' for overburdened physicians, giving them cues when they are forgetting something.

2. Negotiating overlaps

The second category of professional actions that emerged from our data is about professionals negotiating overlaps (45 fragments; 27,1%). Bridging is concerned with *gaps* that must be overcome. Negotiating is about dealing with *overlaps* in professional work arising due to collaborative demands, that might give rise to conflicts.

The first overlap professionals are observed to negotiate is between *work roles and responsibilities in general*. Studies show how working together can create ambiguous overlaps into who does what, and who is responsible for what. Lingard et al. (2012, p. 875) highlight how decision making in a hospital core transplant team is a process of negotiation by drawing together "threads of expertise and authority". Clarke (2010) similarly reports on professionals actively expressing and checking opinions, making compromises, bargains and trades about workload issues. Furthermore, Hjalmarson, Ahgren, and Strandmark Kjolsrud (2013) highlight how professionals discuss their mutual roles within formal workshops and meetings.

Secondly, data in our review highlights how professionals also negotiate overlaps *during individual care processes*. When treating patients together, overlaps become noticeable. Goldman et al. (2016) show how acute care delivery requires ongoing negotiations among multiple professionals, such as physicians, social workers and nurses. Nugus and Forero (2011) also highlight the way professionals constantly negotiate issues of patient transfers, as decisions must be made about where patients have to go to.

3. Creating spaces

The final category of professional actions is about how professionals *create spaces* (34 fragments; 20,5%). Working together provides the need for professionals to organize the necessary space for interacting. It can be seen as facilitative to the first two categories: without these spaces, it is hard for professionals to get to know each other (i.e. bridge gaps) or to negotiate ways of working.

Professionals are firstly observed creating space *in relation to external actors* such as managers and other institutions (Nugus & Forero, 2011). Stuart (2014, p. 9) reports on how professionals show political astuteness by "knowing when it was appropriate to move forward by going directly to the board". Amir, Scully, and Borrill (2004) show how nurses within breast cancer teams actively manage the bureaucracy as they build up contacts with outside agencies.

Secondly, professionals are also observed to create spaces internally *by (re)creating the organizational arrangements* for collaboration. These arrangements can be absent or do not always suffice. In these cases, professionals are observed to create new arrangements. Van Wijngaarden, de Bont, and Huijsman (2006) observe how professionals within networks for rehabilitation care actively set up and redefine referral criteria. Sylvain and Lamothe (2012) show that professionals in mental health commonly create a treatment protocol that described specific treatment steps.

Lastly, professionals are also seen to create space by working around existing organizational arrangements. This is, for instance, observed as professionals print and manually mark information other professionals need to read, thereby setting up an alternative, informal information channel next to existing IT systems (Gilardi et al., 2014).

In the next sections, we analyze whether differences can be observed between professions, collaborative settings and sectors in the way professionals contribute to interprofessional collaboration.

Differences between professions

Multiple professionals are observed to contribute to interprofessional collaboration. Nurses (56 fragments; 33,7%) and physicians (45; 27,1%) provide the majority. Other professions include dieticians, social workers and pharmacists. Many fragments (62; 37,3%) do not specify which profession they refer to. We left these fragments out of our analysis here.

Figure 2 compares the data on physicians and nurses in relation to the general picture. This figure shows physicians to be more engaged in negotiating overlaps (40,0% out of the total of 'their' fragments) than nurses (14,3%). This might indicate physicians play a leading role in reconfiguring tasks

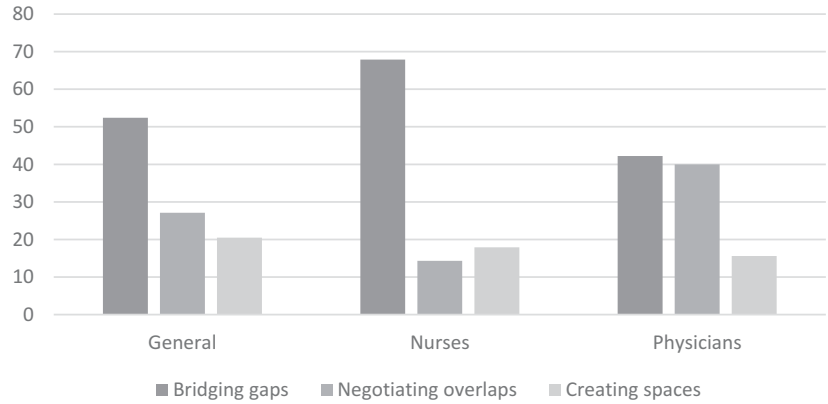

Figure 2. Percentage comparison of data on nurses and physicians.

within collaborative settings. As these actions are observed to contribute to collaboration, they should not be interpreted as defensive actions to safeguard medical dominance (Svensson, 1996). Instead, they show physicians taking on a leading role in finding workable divisions of labor in the face of collaborative demands.

Secondly, nurses are observed to be more strongly engaged in bridging gaps (67,9% out of the total of 'their' fragments) than physicians (42,2%). This is in line with 'traditional' images of nursing as an ancillary profession (e.g. by helping others or by adjusting to other communication styles). However, in our data, bridging is to be distinguished from adapting. Bridging might point to their central position in information flows within collaborative settings (Hurlock-Chorostecki, Forchuk, Orchard, Reeves, & Van Soeren, 2013).

Differences between collaborative settings

Here, we analyze whether contributions differ between close-knit team settings and other, more networked forms of collaboration (Dow et al., 2017). 114 fragments (68,7%) portray team settings. 51 (30,7%) portray networked settings. 1 fragment (0,6%) provided insufficient information to categorize and is therefore left out of our analysis.

Overall, the numbers are fairly comparable (see Figure 3). Within team settings, bridging gaps is slightly more prominent than the network settings (57,9% vs. 41,2%). This is counterintuitive, as teams are seen as close-knit, implying less need to bridge gaps. On the other hand, it is also easier to engage in these activities. Within network settings, negotiating overlaps is more prominent than in team settings (35,3% vs. 24,6%). Their more dynamic nature can make it harder to rely on formal arrangements, creating more need for negotiations.

Differences by sector

A third comparison was made between subsectors in healthcare. We compared the general picture with fragments from hospital care, primary and neighborhood care (including youth care), mental care and cross-sectoral collaborations (Figure 4). Hospital care and cross-sectoral settings primarily seem to demand bridging gaps. Primary and neighborhood care seem to demand mostly negotiating behaviors.

Effects on collaboration and patient care

Lastly, we analyze how studies in our review report on the effects of professional contributions to interprofessional collaboration. Most are descriptive in nature and have not included effects in their studies' focus and design. This is evidenced by the high number of actions for which no effect is named (106; 63,9%). Most of the effects that *are* stated are inferred by researchers as opposed to conclusions based on empirical data. For instance, Conn et al. (2016, p. 895)

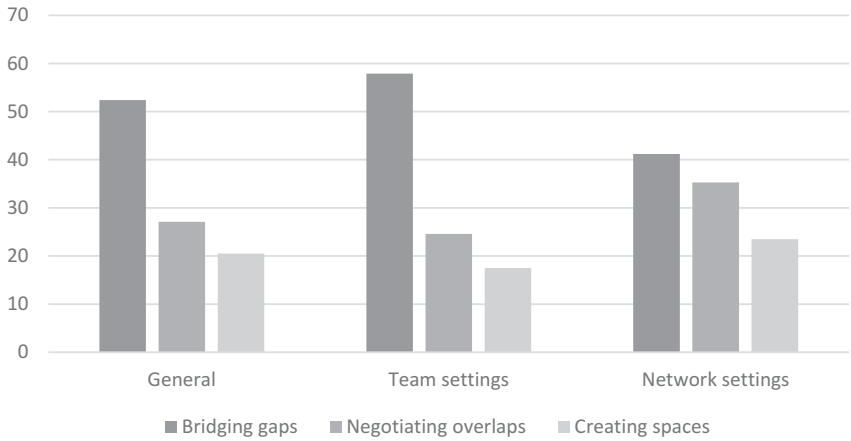

Figure 3. Comparison of data between collaborative settings.

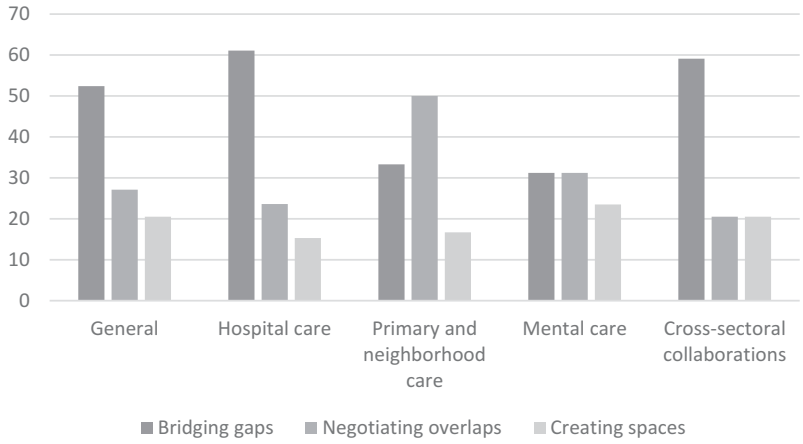

Figure 4. Comparison of data between (sub)sectors in healthcare.

conclude that the way professionals actively consult others (a form of bridging professional gaps) results in "experiences of collaborative, high-quality care". Likewise, Gilardi et al. (2014) conclude that the informal communication channels set up by professionals resulted in higher quality of care, without specifying this relation and linking it to their data.

For an indicative analysis of effects, we related the stated effects by authors (if any) to our three categories presented above. We grouped effects into two categories: effects on interprofessional collaboration itself and effects on patient care.

Most of the stated effects (Table 3) focus on collaborating itself. Most point to positive effects to the social functioning of a team or network. For instance, Hall, Slembrouck, Haigh, and Lee (2010) conclude negotiating roles has a positive effect on the working relations between them. Other positive effects deal with faster decision making (Cook, Gerrish, & Clarke, 2001), an improved chain of care (Hjalmarson et al., 2013) or experiences of an integrated practice (Sylvain & Lamothe, 2012).

Some studies also highlight negative effects of professional actions. Informal workarounds for bureaucratic information channels can, for example, present privacy risks or loss of information (Gilardi et al., 2014). Goldman et al. (2015, p. 1458) similarly highlight "mixed perceptions of the value of the [stronger interprofessional] orientation" within the teams they studied, as it might also dilute the contributions of distinct expertise.

Table 3. Stated effects on interprofessional collaboration and patient care.

Category of contributions	Stated effects on interprofessional collaboration	Stated effects on patient care
Bridging gaps	Positive: 29	Positive: 4 Mixed: 4
Negotiating overlaps	Positive: 12 Negative: 2	n/a
Creating spaces	Positive: 6	Positive: 2 Negative: 1

Discussion

The results of this systematic review show how the growing need for interprofessional collaboration requires specific professional work to be able to work together. This should not be seen as a mere burden complicating professional work. Our review brings forward professionals actively dealing with these demands, looking for ways to cope with barriers to collaboration and with problems that emerge as they collaborate. This is relevant, as research emphasis has mostly been on fostering interprofessional collaboration as a job for managers, educators and policy makers (Atwal & Caldwell, 2002; Valentijn et al., 2013). This review highlights interprofessional collaboration must be constantly substantiated by professionals themselves.

Our results also indicate contributing to interprofessional collaboration is *multifaceted*. It is important for the literature on interprofessional collaboration and education to be attuned to this. The three inductive categories of how professionals contribute to working together resemble existing theoretical perspectives on professional work outside of the interprofessional healthcare literature. In this way they can help further the literature on interprofessional collaboration. *Bridging gaps* has close connotations with the concept of boundary spanning (Williams, 2002). *Negotiating overlaps* in roles and tasks is related to perspectives on healthcare delivery as a negotiated order (Svensson, 1996). This theoretical perspective usually focuses on the professional power struggles in which professionals use their cultural, social or symbolic capital in order to maintain or improve their own position (Stenfors-Hayes & Kang, 2014). This review highlights a 'consensual' side of this negotiated order. It shows how it is possible to 're-adjust' roles and responsibilities if this is needed. *Creating spaces* for collaboration is closely related to what Noordegraaf (2015) calls 'organizing'. This concept was not yet linked empirically to settings of interprofessional collaboration, although this relation has been theorized (Noordegraaf & Burns, 2016). Our review indicates such organizing work is highly informal. This resembles analyses of articulation work (Postma et al., 2015) and knotworking (Lingard et al., 2012) in healthcare, placing emphasis on the

way professionals constantly improvise as they negotiate everyday challenges. The results of our review lead us to formulate a research agenda for further research on interprofessional collaboration along four lines. First, we observe most studies focus on team settings within hospital care. This has historically been the most prominent finding place of professionals working together (Payne, 2000). Nowadays, however, other forms of collaborative relations gain prominence (Dow et al., 2017). Our results indicate differences between diverse settings. The same seems to be true for different sectors within healthcare. Further research is needed to understand the differences in collaborative work between contexts.

Secondly, regarding methodology, almost all studies in this review employ a qualitative, often single-case, design. This provides several opportunities for further research. Conducting comparative studies can help in understanding and explaining differences between results among contexts. Also, quantitative survey methods and experiments can be used to build on the qualitative insights existing studies have highlighted. We also argue practice research approaches (Nicolini, 2012) that aim 'to bring work back in' can be useful as they provide a specific lens to analyze actions of individual actors in a meaningful way.

These points on methodology are important, thirdly, as they help in furthering theoretical understanding of why professionals behave as they do. Where we have focused on professional contributions to interprofessional collaboration, other studies highlight professionals instead defending professional domains and obstructing collaborative working (Hall, 2005; Kvarnström, 2008). Such observations – in line with classic theoretical perspectives on professionalism (e.g. Abbott, 1988) – will have to be reconciled with the empirical evidence in this review. Studies such as Braithwaite et al. (2016) provide interesting ways forward, as they point to the importance of work context, instead of professional socialization as the most prominent factor in understanding professional behaviors.

Lastly, the effects of professional contributions to interprofessional collaboration require more research attention, as this is not yet sufficiently focused on empirically. And also, as several studies highlight possible undesired or even counterproductive effects. This indicates that, other than improving integration (*stronger* connections), divergence (*looser* connections) might be most beneficial for quality of care (Lingard et al., 2017). In some cases, loosely coupled networks might be preferred over close-knit teams, for instance as complex cases require that outside actors can be easily incorporated in the care process. It requires closer scrutiny as it would mean stimulating 'more collaboration' is not always a good thing.

Conclusion

Our aim with this paper has been to provide an overview of the empirical evidence of active contributions by healthcare professionals to interprofessional collaboration. By conducting a systematic review, we show this evidence is mainly obtained in the last decade. Although the evidence is limited and fragmented, the 64 studies in this review show professionals are observed to contribute in at least three ways: by *bridging* multiple types of *gaps*, by *negotiating overlaps* in roles and tasks, and by *creating spaces* to do so. Studies predominantly focus on physicians and nurses, and results show active albeit different efforts by both professional groups. The data provide some evidence that collaborating requires different efforts by professionals involved within either teams or network settings, as well as within different subsectors. Insights into the effects of professional contributions remain shallow and indicative in nature.

Based on these insights, our review provides the grounds for an informed research agenda on the ways in which professionals contribute to interprofessional collaboration, why they do so and why it differs, and to gain insights into the effects of these contributions. The review presented here provides a starting point for such research efforts. It underlines the importance of studying daily practices of professionals in effecting change through mundane, everyday work such as bridging gaps, negotiating overlaps and creating spaces.

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Declaration of interest

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References

*: Studies included in review

Abbott, A. (1988). *The system of professions. An essay on the division of expert labor*. Chicago, IL: University of Chicago Press.

Abraham, J., & Reddy, M. (2013). Re-coordinating activities: An investigation of articulation work in patient transfers. Proceedings of the

ACM 2013 Conference on Computer Supported Cooperative Work - CSCW '13, p. 67–78, San Diego, California, USA.

*Amir, Z., Scully, J., & Borrill, C. (2004). The professional role of breast cancer nurses in multi-disciplinary breast cancer care teams. *European Journal of Oncology Nursing*, *8*(4), 306–314. doi:10.1016/j.ejon.2003.12.011

Atwal, A., & Caldwell, K. (2002). Do multidisciplinary integrated care pathways improve interprofessional collaboration? *Scandinavian Journal of Caring Sciences*, *16*(4), 360–367. doi:10.1046/j.1471-6712.2002.00101.x

*Bagayogo, F. F., Lepage, A., Denis, J.-L., Lamothe, L., Lapointe, L., & Vedel, I. (2016). Grassroots inter-professional networks: The case of organizing care for older cancer patients. *Journal of Health Organization and Management*, *30*(6), 971–984. doi:10.1108/JHOM-01-2016-0013

Barley, S. R., & Kunda, G. (2001). Bringing work back in. *Organization Science*, *12*(1), 76–95. doi:10.1287/orsc.12.1.76.10122

*Braithwaite, J., Clay-Williams, R., Vecellio, E., Marks, D., Hooper, T., Westbrook, M., … Ludlow, K. (2016). The basis of clinical tribalism, hierarchy and stereotyping: A laboratory-controlled teamwork experiment. *BMJ Open*, *6*(7), 1–10. doi:10.1136/bmjopen-2016-012467

Bronstein, L. L. (2003). A model for interdisciplinary collaboration. *Social Work*, *48*(3), 297–306.

*Chreim, S., Langley, A., Comeau-Vallée, M., Huq, J.-L., & Reay, T. (2015). Leadership as boundary work in healthcare teams. *Leadership*, *9*(2), 201–228. doi:10.1177/1742715012468781

*Clarke, D. J. (2010). Achieving teamwork in stroke units: The contribution of opportunistic dialogue. *Journal of Interprofessional Care*, *24*(3), 285–297. doi:10.3109/13561820903163645

*Conn, L. G., Haas, B., Cuthbertson, B. H., Amaral, A. C., Coburn, N., & Nathens, A. B. (2016). Communication and culture in the surgical intensive care unit: Boundary production and the improvement of patient care. *Qualitative Health Research*, *26*(7), 895–906. doi:10.1177/1049732315609901

*Cook, G., Gerrish, K., & Clarke, C. (2001). Decision-making in teams: Issues arising from two UK evaluations. *Journal of Interprofessional Care*, *15*(2), 141–151. doi:10.1080/13561820120039874

Cooper, H. (2010). *Research synthesis and meta-analysis: A step-by-step approach*. Thousand Oaks, CA: SAGE Publications.

Cote, J., Salmela, J. H., Baria, A., & Russel, S. J. (1993). Organizing and interpreting unstructured qualitative data. *The Sport Psychologist*, *7* (June 1993), 127–137. doi:10.1123/tsp.7.2.127

*Croker, A., Trede, F., & Higgs, J. (2012). Collaboration: What is it like? - Phenomenological interpretation of the experience of collaborating within rehabilitation teams. *Journal of Interprofessional Care*, *26*(1), 13–20. doi:10.3109/13561820.2011.623802

Curran, V. R., Sharpe, D., & Forristall, J. (2007). Attitudes of health sciences faculty members towards interprofessional teamwork and education. *Medical Education*, *41*(9), 892–896. doi:10.1111/med.2007.41.issue-9

*Currie, G., & White, L. (2012). Inter-professional barriers and knowledge brokering in an organizational context: The case of healthcare. *Organization Studies*, *33*(10), 1333–1361. doi:10.1177/0170840612457617

D'Amour, D., Goulet, L., Labadie, J.-F., San Martín-Rodriguez, L., & Pineault, R. (2008). A model and typology of collaboration between professionals in healthcare organizations. *BMC Health Services Research*, *8*(1), 1–14.

*Currie, S., & Fox, M. (2015). Navigating relationships : Nursing teamwork in the care of older adults. *Canadian Journal of Nursing Research*, *47*(4), 61–79. doi:10.1177/084456211504700406

De Vries, H., Bekkers, V., & Tummers, L. (2016). Innovation in the public sector: A systematic review and future research agenda. *Public Administration*, *94*(1), 146–166. doi:10.1111/padm.2016.94.issue-1

Dow, A. W., Zhu, X., Sewell, D., Banas, C. A., Mishra, V., & Tu, S.-P. (2017). Teamwork on the rocks: Rethinking interprofessional practice as networking. *Journal of Interprofessional Care*, *31*(6), 677–678. doi:10.1080/13561820.2017.1344048

*Edwards, A. (2011). Building common knowledge at the boundaries between professional practices: Relational agency and relational expertise in systems of distributed expertise. *International Journal of Educational Research*, *50*(1), 33–39. doi:10.1016/j.ijer.2011.04.007

*Ellingson, L. (2003). Interdisciplinary health care teamwork in the clinic backstage. *Journal of Applied Communication Research*, *31*(2), 93–117. doi:10.1080/0090988032000064579

*Falk, A. L., Hopwood, N., & Dahlgren, M. A. (2017). Unfolding practices : A sociomaterial view of interprofessional collaboration in health care. *Professions & Professionalism*, *7*(2), 1–14.

*Fiordelli, M., Schulz, P. J., & Caiata Zufferey, M. (2014). Dissonant role perception and paradoxical adjustments: An exploratory study on medical residents' collaboration with senior doctors and head nurses. *Advances in Health Sciences Education*, *19*(3), 311–327. doi:10.1007/s10459-013-9446-8

*Franzén, C. (2012). Boundary work of dentists in everyday work. *Community Dentistry and Oral Epidemiology*, *40*(4), 377–384. doi:10.1111/cdoe.2012.40.issue-4

*Gilardi, S., Guglielmetti, C., & Pravettoni, G. (2014). Interprofessional team dynamics and information flow management in emergency departments. *Journal of Advanced Nursing*, *70*(6), 1299–1309. doi:10.1111/jan.2014.70.issue-6

*Goldman, J., Reeves, S., Wu, R., Silver, I., MacMillan, K., & Kitto, S. (2015). Medical residents and interprofessional interactions in discharge: An ethnographic exploration of factors that affect negotiation. *Journal of General Internal Medicine*, *30*(10), 1454–1460. doi:10.1007/s11606-015-3476-2

*Goldman, J., Reeves, S., Wu, R., Silver, I., MacMillan, K., & Kitto, S. (2016). A sociological exploration of the tensions related to interprofessional collaboration in acute-care discharge planning. *Journal of Interprofessional Care*, *30*(2), 217–225. doi:10.3109/13561820.2015.1072803

Gray, B. (1989). *Collaborating. finding common ground for multiparty problems*. San Fransisco, CA: Jossey-Bass Publishers.

Haddara, W., & Lingard, L. (2013). Are we all on the same page? A discourse analysis of interprofessional collaboration. *Academic Medicine*, *88*(10), 1509–1515. doi:10.1097/ACM.0b013e3182a31893

*Hall, C., Slembrouck, S., Haigh, E., & Lee, A. (2010). The management of professional roles during boundary work in child welfare. *International Journal of Social Welfare*, *19*(3), 348–357. doi:10.1111/j.1468-2397.2010.00725.x

Hall, P. (2005). Interprofessional teamwork: Professional cultures as barriers. *Journal of Interprofessional Care*, *19*(1), 188–196. doi:10.1080/13561820500081745

Hampson, I., & Junor, A. (2005). Invisible work, invisible skills: Interactive customer service as articulation work. *New Technology, Work and Employment*, *20*(2), 166–181. doi:10.1111/ntwe.2005.20.issue-2

*Hjalmarson, H., Ahgren, B., & Strandmark Kjolsrud, M. (2013). Developing interprofessional collaboration: A longitudinal case of secondary prevention for patients with osteoporosis. *Journal of Interprofessional Care*, *27*(2), 161–170. doi:10.3109/13561820.2012.724123

*Hurlock-Chorostecki, C., Forchuk, C., Orchard, C., Reeves, S., & Van Soeren, M. (2013). The value of the hospital-based nurse practitioner role: Development of a team perspective framework. *Journal of Interprofessional Care*, *27*(6), 501–508. doi:10.3109/13561820.2013.796915

*Hurlock-Chorostecki, C., Van Soeren, M., MacMillan, K., Sidani, S., Donald, F. & Reeves, S. (2015). Nurse practitioner interactions in acute and long-term care:. an exploration of the role of knotworking in supporting interprofessional collaboration. BMC Nursing, 14(50), 1–6. doi:10.1186/s12912-015-0102-x

*Hurlock-Chorostecki, C., Van Soeren, M., Macmillan, K., Sidani, S., Donald, F., & Reeves, S. (2016). A qualitative study of nurse practitioner promotion of interprofessional care across institutional settings: Perspectives from different healthcare professionals. *International Journal of Nursing Sciences*, *3*(1), 3–10. doi:10.1016/j.ijnss.2016.02.003

Klinar, I., Ferhatovic, L., Banozic, A., Raguz, M., Kostic, S., Sapunar, D., & Puljak, L. (2013). Physicians' attitudes about interprofessional treatment of chronic pain: Family physicians are considered the most important collaborators. *Scandinavian Journal of Caring Sciences*, *27* (2), 303–310. doi:10.1111/scs.2013.27.issue-2

*Kvarnström, S. (2008). Difficulties in collaboration: A critical incident study of interprofessional healthcare teamwork. *Journal of Interprofessional Care*, *22*(2), 191–203. doi:10.1080/13561820701760600

*Kvarnström, S., & Cedersund, E. (2006). Discursive patterns in multiprofessional healthcare teams. *Journal of Advanced Nursing*, *53*(2), 244–252. doi:10.1111/j.1365-2648.2006.03719.x

Leathard, A. (2003). *Interprofessional collaboration. From policy to practice in health and social care*. (A. Leathard, Ed.). New York, USA: Routledge.

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., … Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. *BMJ*, *(2009* (339), 1–8.

*Lingard, L., McDougall, A., Levstik, M., Chandok, N., Spafford, M. M., & Schryer, C. (2012). Representing complexity well: A story about teamwork, with implications for how we teach collaboration. *Medical Education*, *46*(9), 869–877. doi:10.1111/j.1365-2923.2012.04339.x

*Lingard, L., Sue-Chue-Lam, C., Tait, G. R., Bates, J., Shadd, J., & Schulz, V. (2017). Pulling together and pulling apart: Influences of convergence and divergence on distributed healthcare teams. *Advances in Health Sciences Education Theory & Practice*, *22*(5), 1085–1099. doi:10.1007/s10459-016-9741-2

*Martin, G. P., Currie, G., & Finn, R. (2009). Leadership, service reform, and public-service networks: The case of cancer-genetics pilots in the english NHS. *Journal of Public Administration Research and Theory*, *19*(4), 769–794. doi:10.1093/jopart/mun016

Maslin-Prothero, S. E., & Bennion, A. E. (2010). Integrated team working: A literature review. *International Journal of Integrated Care*, *10*, 1–11.

McCallin, A. (2001). Interdisciplinary practice – A matter of teamwork: An integrated literature review. *Journal of Clinical Nursing*, *10*(4), 419–428. doi:10.1046/j.1365-2702.2001.00495.x

Morgan, S., Pullon, S., & McKinlay, E. (2015). Observation of interprofessional collaborative practice in primary care teams: An integrative literature review. *International Journal of Nursing Studies*, *52*(2015), 1217–1230. doi:10.1016/j.ijnurstu.2015.03.008

Mulvale, G., Embrett, M., & Razavi, S. D. (2016). "Gearing Up" to improve interprofessional collaboration in primary care: A systematic review and conceptual framework. *BMC Family Practice*, *17*(83), 1–8. doi:10.1186/s12875-015-0398-3

Nancarrow, S. A., Booth, A., Ariss, S., Smith, T., Enderby, P., & Roots, A. (2013). Ten principles of good interdisciplinary team work. *Human Resources for Health*, *11*(19), 1–11. doi:10.1186/1478-4491-11-1

Nicolini, D. (2012). *Practice theory, work and organization: An introduction*. Oxford, UK: Oxford University Press.

Noordegraaf, M. (2015). Hybrid professionalism and beyond: (New) forms of public professionalism in changing organizational and societal contexts. *Journal of Professions and Organization*, *2*(2), 1–20. doi:10.1093/jpo/jov002

Noordegraaf, M., & Burns, L. R. (2016). The paradoxes of leading and managing healthcare professionals. In T. J. Hoff, K. M. Sutcliffe, & G. J. Young (Eds.), *The healthcare professional workforce. Understanding human capital in a changing industry* (pp. 107–145). Oxford, UK: Oxford University Press.

*Nugus, P., & Forero, R. (2011). Understanding interdepartmental and organizational work in the emergency department: An ethnographic approach. *International Emergency Nursing*, *19*(2), 69–74. doi:10.1016/j.ienj.2010.03.001

Paradis, E., & Reeves, S. (2013). Key trends in interprofessional research: A macrosociological analysis from 1970 to 2010. *Journal of Interprofessional Care*, *27*(2), 113–122. doi:10.3109/13561820.2012.719943

Payne, M. (2000). *Teamwork in multiprofessional care*. New York, USA: Palgrave MacMillan.

Perrier, L., Adhihetty, C., & Soobiah, C. (2016). Examining semantics in interprofessional research: A bibliometric study. *Journal of Interprofessional Care*, *30*(3), 269–277. doi:10.3109/13561820.2016.1142430

*Petrakou, A. (2009). Integrated care in the daily work: Coordination beyond organisational boundaries. *International Journal of Integrated Care*, *9*(July), 1–8. doi:10.5334/ijic.325

Plochg, T., Klazinga, N. S., & Starfield, B. (2009). Transforming medical professionalism to fit changing health needs. *BMC Medicine*, *7*(64), 1–7. doi:10.1186/1741-7015-7-64

*Postma, J., Oldenhof, L., & Putters, K. (2015). Organized professionalism in healthcare: Articulation work by neighbourhood nurses. *Journal of Professions and Organization*, *2*(1), 61–77. doi:10.1093/jpo/jou008

*Quinlan, E., & Robertson, S. (2012). The communicative power of nurse practitioners in multidisciplinary primary healthcare teams. *Journal of the American Academy of Nurse Practitioners*, *25*(2), 91–102. doi:10.1111/j.1745-7599.2012.00768.x

Reeves, S., Goldman, J., Gilbert, J., Tepper, J., Silver, I., Suter, E., & Zwarenstein, M. (2016). A scoping review to improve conceptual clarity of interprofessional interventions. *Journal of Interprofessional Care*, *25*(3), 167–174. doi:10.3109/13561820.2010.529960

Reeves, S., & Hean, S. (2013). Why we need theory to help us better understand the nature of interprofessional education, practice and care. *Journal of Interprofessional Care*, *27*(1), 1–3. doi:10.3109/13561820.2013.751293

Reeves, S., Lewin, S., Espin, S., & Zwarenstein, M. (2010). *Interprofessional teamwork for health and social care. Interprofessional teamwork for health and social care*. London, UK: Blackwell-Wiley.

*Reeves, S., McMillan, S. E., Kachan, N., Paradis, E., Leslie, M., & Kitto, S. (2015). Interprofessional collaboration and family member involvement in intensive care units: Emerging themes from a multi-sited ethnography. *Journal of Interprofessional Care*, *29*(3), 230–237. doi:10.3109/13561820.2014.955914

Reeves, S., Xyrichis, A., & Zwarenstein, M. (2017). Teamwork, collaboration, coordination, and networking: Why we need to distinguish between different types of interprofessional practice. *Journal of Interprofessional Care*, *32*(1), 1–3. doi:10.1080/13561820.2017.1400150

San Martin-Rodriguez, L., Beaulieu, M.-D., D'Amour, D., & Ferrada-Videla, M. (2005). The determinants of successful collaboration: A review of theoretical and empirical studies. *Journal of Interprofessional Care*, *19* (S1), 132–147. doi:10.1080/13561820500082677

*Stenfors-Hayes, T., & Kang, H. H. (2014). Boundaries, gaps, and overlaps: Defining roles in a multidisciplinary nephrology clinic. *Journal of Multidisciplinary Healthcare*, *7*(2014), 471–477. doi:10.2147/JMDH.S46910

*Stuart, K. (2014). Collaborative agency to support integrated care for children, young people and families: An action research study. *International Journal of Integrated Care*, *14*(8), 1–10. doi:10.5334/ijic.1171

Suter, E., Arndt, J., Arthur, N., Parboosingh, J., Taylor, E., & Deutschlander, S. (2009). Role understanding and effective communication as core competencies for collaborative practice. *Journal of Interprofessional Care*, *23*(1), 41–51. doi:10.1080/13561820802338579

Svensson, R. (1996). The interplay between doctors and nurses - a negotiated order perspective. *Sociology of Health & Illness*, *18*(3), 379–398. doi:10.1111/shil.1996.18.issue-3

*Sylvain, C., & Lamothe, L. (2012). Sensemaking: A driving force behind the integration of professional practices. *Journal of Health Organization and Management*, *26*(6), 737–757. doi:10.1108/14777261211276998

*Tait, G. R., Bates, J., LaDonna, K. A., Schulz, V. N., Strachan, P. H., McDougall, A., & Lingard, L. (2015). Adaptive practices in heart failure care teams: Implications for patient-centered care in the context of complexity. *Journal of Multidisciplinary Healthcare*, *8*(2015), 365–376.

Thomson, A. M., & Perry, J. L. (2006). Collaboration processes: Inside the black box. *Public Administration Review*, *66*(S1), 20–32. doi:10.1111/puar.2006.66.issue-s1

*Timmons, S., & Tanner, J. (2005). Operating theatre nurses: Emotional labour and the hostess role. *International Journal of Nursing Practice*, *11*(2), 85–91. doi:10.1111/ijn.2005.11.issue-2

Valentijn, P. P., Schepman, S. M., Opheij, W., & Bruijnzeels, M. A. (2013). Understanding integrated care: A comprehensive conceptual

framework based on the integrative functions of primary care. *International Journal of Integrated Care*, *13*(Jan–March), 1–12. doi:10.5334/ijic.886

*Van Wijngaarden, J. D. H., de Bont, A. A., & Huijsman, R. (2006). Learning to cross boundaries: The integration of a health network to deliver seamless care. *Health Policy*, *79*(2–3), 203–213. doi:10.1016/j.healthpol.2006.01.002

Williams, P. (2002). The competent boundary spanner. *Public Administration*, *80*(1), 103–124. doi:10.1111/padm.2002.80.issue-1

*Williamson, S., Twelvetree, T., Thompson, J., & Beaver, K. (2012). An ethnographic study exploring the role of ward-based advanced nurse practitioners in an acute medical setting. *Journal of Advanced Nursing*, *68*(7), 1579–1588. doi:10.1111/jan.2012.68.issue-7

Xyrichis, A., & Lowton, K. (2008). What fosters or prevents interprofessional teamworking in primary and community care? A literature review. *International Journal of Nursing Studies*, *45*(1), 140–153. doi:10.1016/j.ijnurstu.2007.01.015