

Successful return to work of individuals with chronic pain according to health care providers: a meta-synthesis

Lilian Magalhães^a, Crystal Chan^b, Audrey Colleen Chapman^c, Lorna Majed^c,
Renata Samigullina^d, Dejana Trninic^c, Lynn Shaw^e

^aDepartamento de Terapia Ocupacional, Universidade Federal de São Carlos – UFSCar, São Carlos, SP, Brazil.

^bVHA Rehab Solutions, Canada.

^cWestern University of Ontario, Canada.

^dRed Deer Regional Hospital, Alberta, Canada.

^eDalhousie University, Halifax, Canada.

Abstract: Introduction: Chronic pain is a persistent disease that causes personal and social economic problems when individuals are unable to return to work. Objective: This meta-synthesis investigated the perspectives of health professionals on the best mechanisms (triggering change) and approaches to support people with chronic pain on return to work. Method: Peer-reviewed articles published until October 2017 were searched in databases such as PsycINFO, EMBASE, CINAHL and Pubmed. The search was based on three concepts: “chronic pain”, “return to work” and “therapist”. Six articles were analyzed. Meta-ethnography was used to synthesize data extracted from qualitative studies. Results: Five second-order interpretations were revealed: social interactions contribute to rehabilitation and can interrupt the return to work; inadequate coordination and excessive bureaucracy complicates the return to work; communication between worker and other stakeholders is critical for return to work; health professionals are not clear about their roles; the congruence between health professionals and the workers’ perspectives and goals on return to work impacts the treatment and its outcomes. A posterior analysis produced two third-order syntheses: 1. the need for assertive communication to lay the groundwork for best practices; and 2. inadequate coordination in the current system complicates return to work in cases of chronic pain. Conclusion: Stakeholders and health professionals need to understand their roles and responsibilities to consistently set goals and action plans for return to work.

Keywords: *Chronic Pain, Return to Work, Health Personnel.*

Retorno bem-sucedido ao trabalho para indivíduos com dor crônica, segundo os profissionais de saúde: uma metassíntese

Resumo: Introdução: Dor crônica é doença persistente que causa problemas econômicos, pessoais e sociais, quando indivíduos não conseguem voltar ao trabalho. Objetivo: Esta metassíntese investigou as perspectivas dos profissionais de saúde acerca dos melhores mecanismos (desencadeantes da mudança) e abordagens para apoiar trabalhadores com dor crônica, no retorno ao trabalho. Método: Artigos revisados por pares foram pesquisados em bases de dados, como PsycINFO, EMBASE, CINAHL e Pubmed, publicados até outubro de 2017. As buscas empregaram três conceitos: “dor crônica”, “retorno ao trabalho” e “terapeuta”. Foram analisados seis artigos. Metaetnografia foi utilizada para sintetizar os dados extraídos de estudos qualitativos. Resultados: Foram reveladas cinco interpretações de segunda ordem: 1. as interações sociais contribuem para a reabilitação e podem interromper o retorno ao trabalho; 2. a coordenação inadequada e a burocracia excessiva complicam o retorno

ao trabalho; 3. a comunicação entre o trabalhador e os demais atores é fundamental para o retorno ao trabalho; 4. os profissionais de saúde não têm clareza sobre seus papéis, e 5. a congruência entre o profissional de saúde e as perspectivas e os objetivos do trabalhador, no retorno ao trabalho, impacta o tratamento e os resultados. Uma análise posterior produziu duas sínteses de terceira ordem: 1. a necessidade de comunicação assertiva para estabelecer as bases para as melhores práticas, e 2. a coordenação inadequada no sistema atual complica o retorno ao trabalho, nos casos de dor crônica. Conclusão: As partes interessadas precisam compreender seus papéis e responsabilidades para, de forma congruente, estabelecer metas e planos de ação para o retorno ao trabalho.

Palavras-chave: *Dor Crônica, Retorno ao Trabalho, Profissional de Saúde.*

1 Introduction

Chronic pain is a disorder that affects one in five Canadians, and costs approximately 28% of the Canadian health care budget, or 50-60 million dollars annually (ANTAO et al., 2012). However, it is surprising that so little is being done to confront this overwhelming personal and economic issue. Chronic pain research boasts less than 1% of funding from the Canadian Institutes of Health Research, which is staggering considering that 25% of Canadians experience chronic pain (CANADIAN..., 2015). However, these statistics are skewed based on the inclusion of disorders not inherently associated with chronic pain. Indeed, McQuay states that chronic pain “is common but it’s not sexy” (ROBINSON; KENNEDY; HARMON, 2011) exemplifying that the prevention and treatment of these associated disorders is low on the political priority list.

Chronic pain is defined as a repetitive and persistent pain that is rarely localized, and associated with depression, anguish, apprehension or hopelessness (BRACCIANO, 2008). On a personal level, chronic pain, compared to other chronic diseases, is often poorly managed, can last throughout the lifespan, and decreases quality of life (ANTAO et al., 2012; CANADIAN..., 2015).

Apart from the significant personal implications and the rising healthcare costs, there are many indirect costs associated with unmanaged chronic pain. This is particularly relevant when looking at the effect that chronic pain has on an individual’s ability to return to work (RTW) following an injury, or illness with the development of chronic pain. Indirect costs include health care spending associated with the negative side effects of chronic pain treatments, welfare payments, and workforce costs (NEVEDAL et al., 2013; ROBINSON; KENNEDY; HARMON, 2011). More specifically, individuals with chronic pain experience a loss of personal productivity and income, worsened by the associated healthcare costs incurred by the individuals, exceeding 10 billion dollars in Canada (CANADIAN..., 2015). Inability to RTW is also

further exacerbated by the predominant Western myth that encourages individuals with pain to rest and avoid activity until their pain has disappeared, which, conversely, in many cases has the undesired result of delaying recovery and leading to other associated psychological and physical issues (ALENCAR, 2015; ROBINSON; KENNEDY; HARMON, 2011).

Poor RTW for individuals with chronic pain also impacts a country’s economy due to a decreased healthy workforce, diminished job performance, and decreased productivity associated with personal suffering (NEVEDAL et al., 2013; ROBINSON; KENNEDY; HARMON, 2011; SCHWEIKERT et al., 2006). It is estimated that American businesses lose approximately 61.2 billion dollars per year due to these aforementioned challenges (NEVEDAL et al., 2013). Likewise, in Australia, it was calculated that roughly 99 million work days and 1.4 billion dollars AUD were lost annually due to chronic pain related absenteeism (ROBINSON; KENNEDY; HARMON, 2011). Moreover, when individuals with chronic pain can RTW, it is estimated that 5.1 billion dollars AUD are still lost due to the decreased total work efficiency of this population (ROBINSON; KENNEDY; HARMON, 2011).

Effective RTW strategies are critical on a personal and national economic level. The most effective cited treatments for RTW are delivered by evidence-based, interdisciplinary teams, where several health care practitioners (HCPs) target the multifaceted components of the patient’s pain (DYSVIK; KVALOY; NATVIG, 2012). However, is this the current format and reality for the RTW process for people with chronic pain? Current RTW treatments for chronic pain are poorly established, with numerous costly options, often based on the beliefs of the therapist(s) managing the individual’s case (NEVEDAL et al., 2013). As well, despite the knowledge that the benefits of interdisciplinary care are well-researched and understood, current treatments for chronic pain do not incorporate the use of this framework (LAMBEEK et al., 2009).

2 Research Question and Study Significance

HCPs are the individuals on the frontlines of health care working directly with people experiencing chronic pain. Therefore, their perspectives are critical in evaluating the current effectiveness of strategies for RTW. By recognizing the discontinuity between evidence-based best practice guidelines and clinical practice, research is required to determine whether interdisciplinary approaches are the best strategies for supporting the RTW process. Insights from various HCPs will help to determine whether there is agreement among professions on the effectiveness of interdisciplinary approaches, and whether these approaches are being implemented in the clinical setting. HCP's insights may also provide information regarding why best practices are not being adopted and prospective changes that may need to be made to create more succinct and successful RTW practices. Analysis of these perspectives will also uncover many factors, including attitudinal issues, lack of resources, and a poor evidence base, that may contribute to, or hinder, successful RTW. Finally, HCPs' perspectives may also lead to the discovery of other approaches for enabling individuals with pain to return to the workforce. Therefore, the purpose of this paper is to uncover HCPs' beliefs and perspectives on how to best facilitate successful RTW in people with chronic pain. A qualitative meta-synthesis will be completed to address the following question: what are HCPs' perspectives with regards to the mechanisms (triggers of change) and approaches to support RTW for people with chronic pain?

3 Methods

To address the proposed research question, a meta-synthesis study design was conducted (WALSH; DOWNE, 2005). This study design allows the researchers to examine the similarities and differences of the perspectives that HCPs have for RTW strategies within the current literature. The population of interest for this review was HCPs (occupational therapists, physical therapists, physicians, psychologists, nurses, nurse practitioners, kinesiologists, chiropractors, ergonomists, recreational therapists, social workers, speech language pathologists, massage therapists, vocational therapists, and any others involved in the RTW process). The key variables of interest encompassed the process of RTW for those experiencing chronic pain.

Meta-ethnography is a method used to synthesize data extracted from ethnographic qualitative

studies (NOBLIT; HARE, 1998), and was used to guide the synthesis of data collected from the six qualitative studies included in the meta-synthesis. This analytic approach involves the synthesis of key concepts derived from individual qualitative studies, which were formulated into raw data (CAMPBELL et al., 2003; MacEACHEN et al., 2006). This approach is inductive and interpretive; individual findings are synthesized in pursuit of overarching commonalities or themes (ANDERSEN; NIELSEN; BRINKMANN, 2012).

The researchers conducted the initial database search assisted by the research librarian at Western University. A systematic search was conducted on the bibliographical databases access. The following databases were searched for peer reviewed material published from their inception until October 2017: ProQuest, PsycINFO, Business Source Complete (BSC), EMBASE, CINAHL, and Pubmed. Each database was searched by two different reviewers to increase inter-rater reliability (DEPOY; GITLIN, 2011). The searches were conducted using three concepts: "chronic pain", "return to work" and "therapist". Refer to Table 1 for a full list of search terms.

The following exclusion criteria were used:

- Written in language other than English;
- Not qualitative methodology;
- Grey literature;
- Individuals who have never been employed/lost time from work due to chronic pain;
- Individuals with acute pain;
- Studies which do not examine the RTW process;
- Studies that do not emphasize the perceptions of HCPs on the process of RTW;
- Studies which do not specify the required demographic information of individuals with chronic pain.

The results of the search for each database are presented in Table 2.

The search returned a total of 864 articles, which were transferred to Refworks (REFWORKS, 2009). Refworks is an online research management tool designed to help gather, store and manage bibliographic references. The references were then transferred to

Table 1. Search terms.

| Chronic pain | Return to work | Therapist |
|---|---|--|
| <ul style="list-style-type: none"> • chronic pain • persistent pain • fibromyalgia • multiple sclerosis • neuropathic pain • nociceptive pain • chronic headaches • postoperative pain • complex regional pain syndrome • sinus pain • musculoskeletal pain • arthritis • arthralgia • tendinitis • carpal tunnel syndrome • orthopedic pain • low back pain • pelvic pain syndrome • neck pain • shoulder pain | <ul style="list-style-type: none"> • return to work • job re-entry • vocational rehabilitation | <ul style="list-style-type: none"> • occupational therapist • physiotherapist • physical therapist • physician • occupational physician • ergonomist • massage therapist • chiropractor • nurse • career counselor |

Table 2. Data search results.

| Database | Result of the search |
|----------|----------------------|
| ProQUEST | 124 |
| PsycINFO | 135 |
| BSC | 13 |
| EMBASE | 294 |
| CINAHL | 45 |
| Pubmed | 253 |
| TOTAL | 864 |

Table 3. Screening procedure summary.

| Screening Step | Number of Articles | Number of Researchers |
|-------------------------------|--------------------|-----------------------|
| Duplicate Removal | 852 | 1 |
| Title Screening | 699 | 2 |
| Abstract Screening | 406 | 2 |
| Article Screening | 147 | 2 |
| Inclusion Criteria | 8 | 2 |
| Quality Appraisal | 6 | 2 |
| Data Extraction and Synthesis | 6 | 2 |

another software, DistillerSR (SCHWEIKERT et al., 2006), for screening.

DistillerSR was used during title and abstract screening. This web-based systematic review software allows the reviewers to organize references, mark conflicts, and track progress. Using this software, article duplicates were identified. Reviewers were presented with duplicate pairs and manually confirmed each one. The process eliminated 165 duplicate articles. The remaining 699 articles proceeded to the title screening step. For a summary of the screening procedure used to arrive at articles used in the final analysis, see Table 3.

4 Title Screening (n = 699)

Reviewers were presented with a title, and the question: “Is this article potentially relevant to our study?” and given an option to select “yes”/ “no”/ “unsure”. Two reviewers screened each

article title. A disagreement between reviewers was automatically set to be included in the next screening level. In title screening level, 281 articles were excluded, and 406 papers made it to the abstract screening level.

5 Abstract Screening (n = 406)

Reviewers were presented with an article title and abstract, to respond the question “is this article potentially relevant to our study?” and given an option to select “yes” / “no” / “unsure” for each article abstract. A disagreement between reviewers was set as a conflict. A third reviewer was introduced to resolve conflicts. This step excluded 261 articles. The remaining 145 articles were included because they either appeared relevant from the abstract, or had insufficient information to confidently conclude the exclusion of the article.

6 Article Screening (n = 147)

Two researchers reviewed each article in greater depth to decide whether the paper should be included for final analysis. A third researcher arbitrated any disagreements. The final screening produced eight articles that were potentially relevant to our research question. These eight articles were further screened to ensure they met the inclusion criteria for this meta-synthesis. The inclusion criteria were as follows:

- Peer reviewed;
- Written in English;
- Used qualitative methodology;
- Address chronic pain;
- Focus on RTW process;
- Highlight/quote perceptions of health care providers;
- Have clear identifiable demographics of participants.

Six articles met these criteria and underwent quality appraisal. The desire to increase credibility of studies was balanced against the risk of excluding crucial studies using rigid criteria. This was achieved by using Critical Appraisal Skills Programme Qualitative Research Checklist assessment tool [18] (CRITICAL..., 2014), which allows for flexibility, yet maintains clear structure of how each article is to be appraised. Two researchers appraised each article and a third researcher settled any disagreements. All articles met the cut-off score of 7/10 (four articles scored 9/10, and two articles scored 8/10). None were excluded. These six articles went on to data extraction and data synthesis.

7 Data Extraction and Synthesis

A spreadsheet was used to guide the extrapolation, organization, and conceptualization of relevant data. The following headings were included in the above mentioned spreadsheet: name of the study; authors; publication date; location of publication; research objective; type of population the study was completed with; the setting of the project; methods; and main findings was used to guide the extrapolation, organization, and conceptualization of relevant data.

8 Synthesis of Findings

To conduct a meta-ethnography, three levels of analysis were completed: first-order concepts, second-order interpretations, and third order syntheses

(BRITTEN et al., 2002). The six original studies were each synthesized by two reviewers and used to identify key concepts that were formulated into raw data (first-order concepts). In this qualitative meta-synthesis, first-order concepts, relevant to the perspective of HCPs regarding RTW for individuals with chronic pain, were extracted. The first-order concepts were grouped and examined by the research team for traits incorporating findings from more than one of the synthesized studies; creating the second-order interpretations. The third level of analysis included the synthesis of the key concepts established in the second-order interpretations, as it relates to the research question of the meta-ethnography; formulating the third-order syntheses. The five researchers completed the process of formulating the third-order syntheses. The process of combining and relating ideas and concepts from the six articles being synthesized, otherwise known as reciprocal translation (MACEACHEN et al., 2006) and constant comparison of extracted concepts was used to determine the third-order syntheses. Reciprocal translation and constant comparison are strategies used to encourage and explore “ideas, concepts, and metaphors across studies... provid[ing] explanations not articulated in the literature” (MACEACHEN et al., 2006).

9 Findings

The six studies used to establish the present meta-synthesis were based on diverse healthcare providers, such as general practitioners (GP), physiotherapists, chiropractors, occupational therapists, ergonomists, osteopaths, health and safety consultants, nurses, psychologists, social workers, and kinesiologists. The revised studies applied various analytical methods, including thematic analysis, triangulation of methods, and grounded theory approaches. The following section describes the five second-order interpretations and their relevance for patients in the RTW process.

10 Social Interactions Contribute to Rehabilitation Outcomes and Can Disrupt RTW

Social interactions include relationships between the individual with chronic pain, their HCP, other stakeholders, and the client's colleagues. The revised studies noted the significance of stigma and its role in delaying the RTW process (PINCUS; WOODCOCK; VOGEL, 2010; SOKLARIDIS; AMMENDOLIA;

CASSIDY, 2010; WAINWRIGHT et al., 2011). There is a stereotypical preconception among HCPs that individuals with chronic pain are difficult to manage (WAINWRIGHT et al., 2011). Furthermore, HCPs perceive patients to have a sense of hesitation in communicating their condition to employers because of the stigma associated with chronic pain (PINCUS; WOODCOCK; VOGEL, 2010). HCPs negatively viewed colleagues who act solely to fulfill the wants of patients, as opposed to needs of patients. The negatively viewed HCPs are perceived as barriers to the RTW process, which perpetuates further stigmatization and marginalization of patients with chronic pain (SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010).

When delays to successful RTW occur, blame is often placed on the patient with chronic pain by HCPs (PINCUS; WOODCOCK; VOGEL, 2010; SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010). Soklaridis et al. (2010) found that physicians who negatively viewed colleagues as workers' advocates may be "contributing to the discourse of blaming injured workers" (p. 1562) for delays in RTW. On the other end of the spectrum, HCPs place blame on patients for not seeking help sooner, reluctance for taking time off work, and for exacerbating their symptoms (PINCUS; WOODCOCK; VOGEL, 2010). This creates a possible social hierarchy within the workplace or therapy sessions, thereby delaying return to work because the therapeutic relationship is disrupted between the individual and the HCP.

Several authors identified the view of the HCPs regarding the importance of family and environment, and their contributions to the RTW process. HCPs believe that the perspective of the worker regarding their injury, recovery, and the compensation system is affected by family values and community environmental factors (SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010). The attitude of the worker toward the RTW process can also act as a barrier or facilitator of successful RTW. Moreover, roles within the family can contribute to rehabilitation outcomes in different manners. In the study conducted by Scheermesser et al. (2012), HCPs viewed the patient as having little "chance for changing their situation" (p. 10); when families relieve patients of housework, HCPs perceive this action as reducing the individual's autonomy and responsibility, ultimately, delaying their RTW. HCPs also reported that women in traditional patriarchal families experience higher stress levels, compared to men, due to the demands of their role as housekeeper (SCHEERMESSER et al., 2012).

Three reviewed studies (PINCUS; WOODCOCK; VOGEL, 2010; SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010; WAINWRIGHT et al., 2011) showed that HCPs perceived patient relationships at work were a major contributing factor to delays in RTW. Some HCPs identified relationships at work to be the root cause of delayed RTW, as opposed to health issues (SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010). Other HCPs acknowledged relationships at work as common barriers to the RTW process due to stress and stigma associated with the worker's condition (PINCUS; WOODCOCK; VOGEL, 2010; WAINWRIGHT et al., 2011).

11 Inadequate Coordination and Excessive Bureaucracy in Systems Complicate RTW

Researchers from two reviewed studies (THUNBERG; HALLBERG, 2002; WAINWRIGHT et al., 2011) showed that HCPs identified the importance of a dynamic interdisciplinary team as a facilitator to successful RTW. Practitioners agree that RTW is dependent on support from all stakeholders (WAINWRIGHT et al., 2011) and that the decision making process should be highly interactive to optimize each member's potential contribution (THUNBERG; HALLBERG, 2002).

Further, Pincus, Woodcock and Vogel (2010), Soklaridis, Ammendolia and Cassidy (2010) and Wainwright et al. (2011) showed that HCPs viewed employers as barriers to RTW, perceiving them to be unsupportive and lacking understanding of health factors and the RTW process. Some HCPs also suggested that employers were unable to support the RTW process because some jobs, by nature, were considered unmodifiable (PINCUS; WOODCOCK; VOGEL, 2010; WAINWRIGHT et al., 2011). More specifically, the inability for job modifications is more prevalent in small, as opposed to large organizations (SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010). Additionally, the coordination and scheduling of health care treatments acts as a barrier which delays RTW, as workers are expected to book and attend treatment sessions outside of work hours (SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010).

In three reviewed studies (THUNBERG; HALLBERG, 2002; PINCUS; WOODCOCK; VOGEL, 2010; WAINWRIGHT et al., 2011) HCPs feel overwhelmed by the amount of occupational health knowledge required for the provision of successful RTW. Additionally, GPs feel burdened as

they are required to provide sickness-certification to workers using judgements on occupational fitness, in a constrained time frame, while taking many different factors into consideration (WAINWRIGHT et al., 2011). HCPs realize the difficulties associated with the numerous parties involved with a single patient regarding effective communication, and expressed the need for an interdisciplinary team with strong leadership (PINCUS; WOODCOCK; VOGEL, 2010; THUNBERG; HALLBERG, 2002).

12 Communication Between Patient, Health Care Practitioner and All Other Stakeholders is Critical for The RTW Process

HCPs in all the studies discussed communication as a necessary tool for facilitating successful RTW. Dialogue is the main method of communication between patient, HCP, and other stakeholders. Rehabilitation for RTW outcomes consists of many HCPs from different areas of practice. Four studies (THUNBERG; HALLBERG, 2002; WAINWRIGHT et al., 2011; SCHEERMESSER et al., 2012; COUTU et al., 2013) identified collaboration with all stakeholders involved as an evidence-based intervention principle for preventing work disabilities. The authors stressed that the key to collaboration is effective communication. Researchers, however, found that HCPs are unable to communicate effectively with patients and stakeholders due to several reasons (PINCUS; WOODCOCK; VOGEL, 2010; SCHEERMESSER et al., 2012; SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010; WAINWRIGHT et al., 2011). HCPs from one study (PINCUS; WOODCOCK; VOGEL, 2010) listed confidentiality as the main reason. A patient's request for confidentiality limits the potential for accommodations that can be made to a patient's place of employment. Language barriers were also identified as a reason for ineffective communication in two of the articles (SCHEERMESSER et al., 2012; SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010). Patient's reported that language barriers impeded their understanding of their conditions and the benefits of returning to work. Lastly, HCPs found they were unable to communicate effectively with patients regarding work, due to a lack of time (WAINWRIGHT et al., 2011). GPs, for example, often have fewer visits at shorter durations with patients. As a result, gathering information to complete certain documentation, such as a fit note,

which is used to emphasize capabilities for RTW, is limited. Therefore, communication between some HCPs and other stakeholders may be incomplete.

Thunberg and Hallberg (2002) listed ways that rehabilitation can be improved to increase communication. The authors stressed effective teamwork for interdisciplinary rehabilitation for patients with chronic pain. HCPs from the study identified "integrational leadership" (THUNBERG; HALLBERG, 2002) as a prerequisite for interdisciplinary teams, where a member is responsible for developing internal and external communication structures to promote collaboration and integration. Allotting time for all HCPs to meet and discuss patient, administrative, and organizational developments and outcomes is vital for successful communication. One HCP expressed the importance of discussing and formulating objectives (THUNBERG; HALLBERG, 2002). The consensus of the HCPs was that good communication is vital for the rehabilitation process at all levels.

HCPs from another study by Scheermesser et al. (2012) reported that an increase in communication could help further transfer knowledge from the HCP to the patient. Increased communication patterns may also help to reduce fears and misconceptions, and educate patient on pain, pain-centered care, and treatment procedures (SCHEERMESSER et al., 2012). Providing a translator when necessary is another way to provide aid in the information translation process (SCHEERMESSER et al., 2012).

13 Healthcare Practitioners are Unclear about their Roles Within RTW for Chronic Pain and RTW Best Practices

Across several reviewed studies (COUTU et al., 2013; PINCUS; WOODCOCK; VOGEL, 2010; SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010; WAINWRIGHT et al., 2011), HCPs were unsure of their roles within RTW and RTW best practices for patients with chronic pain. HCPs in one of the studies (PINCUS; WOODCOCK; VOGEL, 2010) perceived their roles as providing ergonomic, postural, and exercise-based advice, as opposed to addressing psychosocial issues related to chronic back pain. Pincus, Woodcock and Vogel (2010), however, has shown that HCPs (similarly to the ones interviewed for this study) perceived psychosocial counseling and support as their role. Further research by Soklaridis et al. (2010) identified psychosocial variables as most important for chronic

pain, which contradicted the opinions of the HCPs in the study by Pincus, Woodcock and Vogel (2010). The article by Scheermesser et al. (2012) also found that some HCPs perceived other HCPs' advocacy roles as delaying the RTW process. Perceived reasons for advocacy include HCPs supporting patient's invalid reasons for avoiding RTW. Consequently, the treatment in this study was solely patient-led. The reviewed studies indicate that it is important for HCPs to intervene with best practices for RTW to encourage patients to progress towards health and RTW.

HCPs provided ergonomic advice without visiting patients' workplaces and stated that was the role of occupational therapists and health and safety officers (PINCUS; WOODCOCK; VOGEL, 2010). Pincus, Woodcock and Vogel (2010) also found there was minimal consensus amongst HCPs for what strategies were the most effective for RTW besides reducing pain and increasing mobility. Further research (WAINWRIGHT et al., 2011) discovered HCPs were unsure whether the onus to fill out a fit note should be in their domain of practice, as most have no occupational health training. Therefore, there is a clear pattern of role confusion within RTW, which can severely impact the rehabilitation process for patients. Scheermesser et al. (2012), however, found that HCPs working in a function-centered rehabilitation setting were clear about their roles of providing function-centered treatment, which has been backed up by abundant research for its effectiveness.

According to Thunberg and Hallberg (2002), an important distinction needs to be made between interdisciplinary and multidisciplinary teams. The authors report multidisciplinary teams as being less effective than interdisciplinary teams for individuals with chronic pain with the goal of RTW. Interdisciplinary teams adopt a collaborative approach where HCPs consider one another's roles. Although multidisciplinary teams work together, the roles and responsibilities are distinct, which can cause role confusion. The HCPs from the interdisciplinary team developed a philosophy of knowledge related to all disciplines about patients with chronic pain (THUNBERG; HALLBERG, 2002). The HCPs roles were based on divisions of knowledge that covered biopsychosocial aspects, patient's perceptions of the illness and personality traits, and empowerment of the patient through several HCP strategies (THUNBERG; HALLBERG, 2002).

14 Congruence Between Healthcare Practitioner and Patient Perspectives and Goals on RTW Impacts Treatment and Outcome Performance

Maintaining physical activity, not only to prevent work disability, but also to treat a work disability (i.e., chronic pain), is a common HCP view among several of the articles (COUTU et al., 2013; SCHEERMESSER et al., 2012; SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010; THUNBERG; HALLBERG, 2002; WAINWRIGHT et al., 2011). Research by Scheermesser et al. (2012) found that patients preferred passive treatment strategies (i.e., medication and massage), whereas HCPs recommended active treatment strategies. HCPs recommendations were in line with evidence-based theories on chronic pain, as stated by Coutu et al. (2013). HCPs stress the importance of patient also perceiving physical activity as having the potential to improve function, despite initial pain aggravation. Both the patient and the HCP should be working towards the same goals. Although patient-centered is evidence-based (COUTU et al., 2013), it is not always possible, as illustrated by Soklaridis et al. (2010) where the recommended treatment did not consider the patient's cultural beliefs. As a result, the patient was unable to participate in the treatment plan. The HCP was guided by her own professional knowledge and did not anticipate obstacles. Thus, the authors emphasize the importance of incorporating the patient's goals in the development of the treatment program is crucial for success.

Only one article (PINCUS; WOODCOCK; VOGEL, 2010) displayed congruence, where HCPs perceived engagement in work as beneficial to health and patient identified RTW as a top priority.

15 Discussion

From the aforementioned second-order interpretations, two third-order syntheses emerged. The third-order syntheses are the key components present in the reviewed literature that assist in answering our research question: what are HCPs' perspectives with regards to the mechanisms (triggers of change) and approaches to support RTW for people with chronic pain?

16 Assertive Communication will Help Establish the Foundations for Best Practices, Consolidating a Collaborative Approach to Therapy

Communication enables a cooperative process between the patients, HCPs, and all associated stakeholders. Through communication, it is possible to determine where weaknesses exist in RTW standards and practices, and the way in which these practices can be improved to assist more patients in re-entering the workforce.

There have been no clearly established strategies for collaborative RTW processes between healthcare, workplace and compensation systems. Jakobsen and Lillefjell (2014) emphasized extended collaboration between employees, employer, and rehabilitation staff. To create standards for best practices in returning patients with chronic pain to work, communication is essential from all stakeholders in the process. Currently, discrepancies among HCPs in their role in RTW, as indicated by Soklaridis and her colleagues (2010), lead to a disjointed and often ineffective ability to assist patients in RTW. Employers also need to take a more active role in both communicating with patients and HCPs to support the patient's transition back to work, and to be active stakeholders in the RTW process, as suggested by Wainwright et al. (2011). Therefore, through communication between all stakeholders in the RTW process, it will be possible to create best practice standards for successful RTW strategies.

Scheermesser et al. (2012) identified that HCPs and patients often disagree on realistic goals, the primary treatment focus, and the optimal strategies that should be used to improve patient functioning. The study also identified that many patients did not believe that psychological factors contribute to chronic pain, dismissing a psychosocial focus to therapy, and demonstrating lack of understanding on the condition of chronic pain. Patients were also found to have unrealistically high expectations of therapy outcomes and strategies, which were incongruent with HCPs' approaches to RTW. In order to return to work, the condition of chronic pain must be managed. For effective management to be achieved, patients should be educated on the condition of chronic pain, enabling the establishment of mutual realistic goals in therapy.

Pincus, Woodcock and Vogel (2010) also identified in their work that communication is the critical factor in determining whether a strong therapeutic relationship is formed and how effective treatment will be in meeting its outcomes. With poor communication, therapy is most often patient-led, which this metasynthesis, both explicitly and implicitly, states are kin to pain-focused therapeutic practices and goals (PINCUS; WOODCOCK; VOGEL, 2010; SCHEERMESSER et al., 2012; SOKLARIDIS; AMMENDOLIA; CASSIDY, 2010). HCPs should not only be receptive in discussion, but also contribute to the dialogue on treatment focus. Because of reciprocal communication, therapy will adopt a more patient-centered, rather than patient-led, approach. Collaborative practice, achieved through effective communication, where the patient and therapist work together to identify goals, recognizes the unique lived-in pain experiences of the patient, as well as the HCP's recommendations. Strong communication also facilitates the formation of a trusting therapeutic relationship, enabling a patient to trust HCP in making treatment decisions.

17 Currently, Inadequate Coordination Within the System Complicates RTW for Workers With Chronic Pain

The principle and importance of communication leads into the second third-order synthesis. When discussing the current system, a clear need for a common body of knowledge that is agreed upon by all healthcare disciplines is identified. Without a common body of knowledge and understanding of chronic pain, it would be difficult to create standards of practice to enable RTW for people with chronic pain. Common language, diagnostic criteria, and appreciation of the multifactorial impacts of chronic pain will enable disciplines to come together to form clear practice guidelines, and to have common RTW goals for patients. A holistic approach may be incorporated into RTW best practices, as it addresses all the components to encourage RTW, based on patients identified needs. Indeed, Dekkers-Sánchez et al. (2011) stress the importance of having combined interventions to facilitate holistic care for individuals with chronic pain. Combined interventions should consider aspects of the patient, all HCPs, and the environment through collaboration and communication of employers and colleagues to facilitate successful work re-entry.

Within the formation of practice guidelines, it is beneficial to establish a care coordinator who is responsible to form and maintain a stable communication structure. Based on our findings, by having a care coordinator in each case, all members on the therapeutic team will be kept informed about the patient's changing needs and goals. Additionally, having a care coordinator will assist in assuring that each interdisciplinary team member is held equally accountable for maintaining and working within the pre-established treatment plan. Employing a highly motivated and organized care coordinator will also ensure that the needs of all stakeholders are heard and considered for the most holistic delivery of RTW interventions. Ney (1998) supports our recommendations and further suggests that care coordinators have the ability to communicate effectively with both laypersons and other HCPs, and bridge the gap between the family and patient, and the health care system. Ney (1998) also recommends that care coordinators should anticipate and research various times of transition through the RTW process in order to streamline these steps. Care coordinators in RTW need to have both a broad and in depth understanding of the health care system, and the institutional framework of the patient's re-entry job site, in order to consider barriers in efficient RTW. Finally, creativity is an essential skill that care coordinators must exemplify, as they have a critical role in ensuring RTW occurs despite institutional, social, and cultural barriers.

Incongruence between the perspectives and goals of the patient and HCP is also a problem that will slow the progression of therapy and enable a patient to RTW quickly and successfully. Inadequate coordination within the system cannot be corrected unless there is equal buy-in, problem identification, and goal setting occurring at the base relationship between the individual with chronic pain and the HCP. With both the patient and therapist buy-in, and feeling enabled to make decisions, patients will feel greater control over their pain and therapy process, as a result, increasing their internal locus of control, and enabling positive gains in the therapy process (COUTU et al., 2013).

18 Implications

This review displays HCPs' views on RTW process and approaches, for individuals with chronic pain. The findings from this synthesis highlight the importance of collaboration between all stakeholders involved in the RTW process and not solely focusing on HCPs' to be agents of change for successful

RTW. Consistent with previous research in this area, communication between stakeholders is found to be poor (FRANCHE et al., 2005; FRIESEN; YASSI; COOPER, 2001; KAUSTO et al., 2008; MACEACHEN et al., 2006). The largest gap in communication seems to be among HCPs and employers. To improve the services, HCPs need to have direct communication with the workplace, which will provide to the HCPs a better understanding of the working conditions and improve RTW outcomes. Likewise, the employers need to have a defined process of transitional /modified duty options, need to share critical job demand information, and incorporate a cooperative approach to communication with the physician. Further, more training and education to managers and human resource professionals about RTW processes is required. Development of policies should be implemented in the workplace and healthcare with establishment of mandatory communication procedures between stakeholders. It would also be beneficial to increase human resource departments or occupational health teams available to optimize the management of work related health issues and to effectively establish communication between patients' work and the HCPs.

Additionally, communication and collaboration between HCPs and patients in establishing a common goal and action plan is crucial (HARTH; GERMANN; JESTER, 2008). The congruence between the two stakeholders impacts treatment and outcomes. To improve the services, such issue could be addressed by HCPs being more flexible and implementing a patient-centered approach to treatment. Patient-centered practice is not to be confused with patient-led practice, wherein all treatment decisions are made solely by the patient, rather than having a collaborative process. Therefore, it is important for HCP's to understand the representations held by workers with chronic pain. Occupational therapists have already incorporated working under a patient-centered approach and it would be worthwhile for other HCPs in the future to adapt and implement this type of joint decision-making process so that the strategies adopted can effectively target the goal of preventing long-term disability (COUTU et al., 2013).

This meta-synthesis suggests that the way the system is set up usually delays RTW processes. These issues could be improved in numerous ways. Firstly, training private musculoskeletal practitioners to focus more on work aspects and RTW, as opposed to having a patient led therapy with a focus merely on managing pain. Secondly, GPs need to have more education in occupational health to be able to make

judgments about occupational fitness, as findings suggest that GPs feel they are not in the best place to be sole determiners of sickness certification. Thirdly, the organizational system needs to have plans that support the returning worker without disadvantaging co-workers and supervisors. It is important to avoid creating an unpleasant environment for the returning worker, as this would discourage her from RTW. Lastly, the compensation system and unions need to also contribute in motivating injured workers to RTW after a workplace injury.

All stakeholders need to be on board with a mindset that returning an individual to work is beneficial: to the patient in terms of self-identity, feelings of worth, and being part of social network (FOREMAN; MURPHY; SWERISSEN, 2006); to the employer in terms of having an experienced worker, reduce the cost of training replacements, and minimize workers' compensation costs (FOREMAN; MURPHY; SWERISSEN, 2006); and to the compensation system as they save money (FOREMAN; MURPHY; SWERISSEN, 2006). Stakeholders in the RTW process will need to understand their roles and responsibilities. The road to recovery from the point where the employee reports an injury or illness to their HCP to successful RTW can be long and frustrating if the stakeholders do not understand the processes, their roles, and their responsibilities. This could be addressed through education and training targeted at all stakeholders.

19 Future Research

This review points to several areas for future research. Most importantly, more qualitative studies need to be done exploring HCPs' perspectives on what type of concrete and tangible interventions work best for RTW, specifically for individuals with chronic pain. Additionally, future research should focus on the RTW coordinators bridging the gap among stakeholders. Interventions, which include a RTW care coordinator, should be studied to examine how RTW outcomes are improved when communication among stakeholders is established. Soklaridis and colleagues (2010) suggest that to meet the needs of patients with long-standing pain, it will be necessary to re-think the way healthcare is organized, as well as the role that is traditionally performed by HCPs. A lack of attention to these questions may account for repeated failures in RTW outcomes. Future research in this direction is required. As well, research needs to focus on establishing the foundations for best practices on RTW with chronic pain, so that all stakeholders

can work congruently, with common plans and goals for rehabilitation.

20 Limitations

Despite the use of measures to maintain high levels of rigor during the review process, some limitations can be noted about this meta-synthesis. Despite incorporating a very broad and comprehensive search strategy, which included all HCPs and all types of chronic pain from any mechanism, injury, disease or disorder, there were only six qualitative studies that could be included, which integrated HCPs' perspectives on RTW. Hence, there is a need for more qualitative studies in this area of research. Also, out of the six articles included, two were published in Canada, while the other four were from north-western Europe. Healthcare systems and employment settings differ internationally; therefore, these findings may not be applicable to settings outside these regions. Another difference found between the six studies utilized is their difference in qualitative methodologies, possibly causing analytical discrepancies. Further, the studies incorporated in this meta-synthesis lacked identification of effective treatments and interventions for chronic pain, instead focusing on what needs to be changed in the system for better outcomes. Lastly, the fact that the research team was unable to explore articles published in languages other than English may have posed some limitations to this review.

21 Conclusion

In summary, this synthesis has brought together findings from six qualitative studies that looked at perspectives of HCPs on RTW for individuals with chronic pain. The strength of this meta-synthesis is that it has shown the contribution that qualitative literature can make to important aspects of return to work, by exploring the views of HCPs themselves. The findings highlight how RTW processes are delayed due to the way the system is organized. The bureaucratic culture of the system acts as a barrier for RTW. Congruence between stakeholders and patient perspectives on plan and goals for RTW can enable best practices for treatment and outcome performance. All stakeholders need to understand their roles and responsibilities in the RTW process. Communication and coordination among stakeholders is paramount for successful RTW outcomes, and most importantly, taking a collaborative approach with mutually shared decisions and goals with the patient, can lead to better results.

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Author's Contributions

Magalhaes and Shaw were responsible for the study design and supervision, as well as the final writing up of the text. The other authors collected and analyzed the data, as well as drafted the first versions of the text . All authors have approved the final version of the article.