

Sustainable Return to Work Following a Musculoskeletal Disorder

Courses of Action for Supervisors

Iuliana Nastasia
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STUDIES AND
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PEER REVIEW

In compliance with IRSST policy, the research results published in this document have been peer-reviewed.

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SUMMARY

Musculoskeletal disorders (MSDs) remain a major occupational health problem in industrialized countries. The consequences of work disability place a heavy burden not only on workers and their families, but also on organizations. While a number of studies on work disability underscore the important role of supervisors in various return-to-work (RTW) programs, few have focused specifically on their roles, responsibilities, and actions in facilitating the reintegration of workers who have sustained a work-related musculoskeletal injury.

The general objective of this study was to propose possible courses of action for supervisors during the process aimed at the sustainable RTW of workers following a work-related MSD, and to verify their applicability in various organizational contexts and industry sectors in Québec. The specific objectives were to (1) describe the concrete actions taken by supervisors during the process aimed at achieving sustainable RTW, the different problems they face, and the problem-solving strategies they use; (2) study the conditions favourable and unfavourable to supervisors' involvement in work disability prevention; (3) develop possible courses of action for harmonizing the role and responsibilities of supervisors regarding sustainable RTW with their other roles in the organization (e.g. in production or accident prevention) and with the responsibilities of other organizational actors seeking to prevent work disability; and (4) verify the pertinence, feasibility, and applicability of these courses of action in various organizational contexts and industry sectors in Québec.

A three-part qualitative sequential design was used to achieve these objectives. In part 1, a literature review was performed, starting with a systematic search of three specialized databases. It served to document the international evidence available on the role and responsibilities of supervisors and their involvement in activities essential to the process aimed at achieving a sustainable RTW (objectives 1 and 2 – “international context” component). These essential activities were as follows: (1) contacting the absent worker; (2) evaluating the worker and his¹ work situation; (3) offering, planning, and implementing the RTW solution; (4) welcoming the worker back, and implementing and adjusting the RTW solution; (5) doing follow-up of the RTW solution; (6) establishing communication among the actors (e.g. supervisor and worker post-RTW); (7) promoting collaboration within the work team and support for the worker; (8) coordinating with the other actors in the RTW process; (9) formalizing policies and procedures; and (10) acquiring knowledge and focusing on experience and skills in order to facilitate a sustainable RTW. Descriptive content analyses of the different publications were performed to complete part 1. In part 2, a secondary analysis was conducted of data obtained from a Québec case study carried out in four large companies operating in two different industry sectors. The aim was to describe supervisors' involvement in these essential activities from the various perspectives present in Québec workplaces: workers, supervisors, managers, and union representatives (objectives 1 and 2 – “Québec context” component). Content analyses of interviews were performed for this component. A synthesis of the results of parts 1 and 2 was used to develop possible courses of action and the specific actions associated with them. The essential activities and actions identified in the literature review therefore served as the starting point, and were then adapted in light of the secondary analysis of the workplace interviews (objective 3 – “development of courses of action” component). Lastly, part 3 consisted of

¹ The masculine form is used throughout this text solely in the interests of readability, with no gender discrimination intended.

verifying the pertinence, feasibility, clarity of the wording, and applicability of these courses of action in various contexts and industry sectors in Québec (objective 4 – “applicability” component). A questionnaire was administered for this purpose, and the frequencies of the “yes” answers to the various questions were compiled. The respondents’ suggestions were then re-examined to encourage an exchange of ideas among these same actors, both within focus groups and in individual interviews. Content analyses of the participants’ comments collected for each course of action produced findings regarding their feasibility and applicability, and made it possible to propose an operational model for supervisors.

Results: For the “international” component (objectives 1 and 2), the literature review yielded 788 documents. After eliminating duplicates and applying selection criteria, 16 documents were retained. Three others that were identified in the reference sections of the selected documents were added to these. The literature review revealed a total of 10 essential activities and 22 actions for supervisors associated with the process aimed at achieving sustainable RTW. It also highlighted the types of problems encountered by supervisors and their problem-solving strategies, on the one hand, and the conditions favourable to their involvement in this process, on the other.

For the “Québec context” component (objectives 1 and 2), as a whole, the concrete RTW actions mentioned by the supervisors pertained to the role and responsibilities they were assigned in their organizations and corresponded to the actions identified in the literature review. The actions, problems, and strategies cited concerned mainly evaluation or planning, and in particular, information sharing between supervisors and the head of human resources (HR). The supervisors reported having difficulty reconciling their role and responsibilities regarding production objectives with those regarding sustainable RTW. In addition, they appeared more knowledgeable about prevention actions, particularly the need to document accident circumstances, than about actions facilitating sustainable reintegration into work. Two types of favourable or unfavourable conditions emerged in connection with supervisors’ ability to perform their roles and responsibilities in the four organizations. The first type concerned the importance of managing interpersonal problems and of supporting the worker, whether in his relationships with fellow team members or to ensure that he only does what his capacities allow him to do. This type of condition was mentioned by both the supervisors and other actors interviewed (manager, human resources advisor, person responsible for the RTW, worker, and fellow team member). The second type of condition concerned the organizational culture: an atmosphere favourable to sustainable RTW, available resources, clear and unambiguous procedures regarding the responsibilities of supervisors and other actors, sufficient leeway in choosing and implementing adjustments and accommodations during the RTW, and training (for supervisors and other actors). For example, the participating supervisors appeared to greatly appreciate having discussion opportunities and greater decision latitude for problem solving when these were permitted by their organization.

The synthesis of the essential activities and concrete actions identified in the literature review and the results of the secondary data analysis pointed to eight courses of action and 23 specific actions (objective 3).

For the “applicability” component (objective 4), 19 participants (4 supervisors and 15 other actors) from 19 Québec organizations operating in six different industry sectors completed the questionnaire. Eleven of them (1 supervisor and 10 other actors) also participated in the focus

groups. Generally speaking, the 19 respondents found the courses of action to be pertinent, worded appropriately and comprehensively, and applicable in Québec in favourable organizational contexts. These favourable contexts referred to formalized roles and responsibilities for supervisors regarding sustainable RTW, a prevention-minded organizational culture, available organizational resources, decision latitude given to supervisors to make temporary modifications to the organization of work, and the possibility of supervisor training on the actions requested in the context of a worker's reintegration. The comments collected also revealed specific factors influencing applicability that are related to the organizations' intrinsic characteristics: size, location, union presence or absence, prevalence of sick leave cases, and nature of the work.

This study resulted in a clearer identification of the role and responsibilities of supervisors in the process aimed at achieving sustainable RTW in various organizational contexts in Québec. In particular, it detailed the actions taken by supervisors, problems they encountered, and strategies they used to overcome these problems, as well as the conditions favourable to their involvement in the process. The study also led to the development of courses of action to be implemented by organizations and supervisors themselves to facilitate the sustainable RTW of workers following a work-related MSD. The participants considered these courses of action to be pertinent, feasible, and applicable. Based on our findings about (1) the need to clarify the supervisor's roles and those of other actors in the process aimed at achieving sustainable RTW and (2) the pertinence and feasibility of the courses of action, two recommendations were put forward for organizations. An operational model was proposed to guide the process of harmonizing the roles and responsibilities of supervisors with those of the other actors in the process, as part of the formalization of procedures aimed at facilitating sustainable RTW.

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LIST OF ACRONYMS, INITIALISMS, AND ABBREVIATIONS

TA:	Temporary assignment
CNESST:	Commission des normes, de l'équité, de la santé et de la sécurité du travail
HR:	Human Resources
RTW:	Return to work
MSD:	Musculoskeletal disorder

1. INTRODUCTION

Work-related musculoskeletal disorders (MSDs) are among the leading causes of disability in a number of industrialized countries. Approximately one person in three worldwide lives with a persistent MSD (Briggs *et al.*, 2018). In addition to the potentially devastating effects that MSDs can have on those who suffer from them, work-related MSD cases generate substantial care needs within the healthcare system, major compensation payouts for insurers, and costs for employers due to loss of productivity and absenteeism (Coyte, Asche, Croxford and Chan, 1998). In most cases, workers return to work within three weeks. However, a minority do not manage to return to or stay at work (Wynne-Jones, Buck, Varnava, Phillips and Main, 2009).

In Canada, MSDs, one of the main causes of disability, represent approximately 39% of the long-term disability costs annually. The estimated value of productive time lost was CAN\$12.6 billion in 2010 (Public Health Agency of Canada, 2018). MSDs also ranked third in terms of the magnitude of the morbidity costs related to short-term disability, i.e. 10.3% of the total costs (Public Health Agency of Canada, 2018). This same report ranks MSDs third out of the five diagnoses associated with the highest direct costs (\$5.8 billion) and indirect costs (\$1.4 billion).

In Québec, in 2017, the number of MSD-related injuries stood at 28,539, or 29.7% of the claims accepted by the Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST, 2018). MSDs represented nearly 40% of the CNESST's expenditures, or more than \$500 million (CNESST, 2017).

Work rehabilitation research has shown the importance of systemic, non-medical factors in preventing long-term disability. These include the importance of cooperation among all actors (Costa-Black, Feuerstein and Loisel, 2013; Gouin, 2015; Loisel *et al.*, 2001; Waddell and Burton, 2005). These actors work within different social systems, be it healthcare, insurance, or the workplace itself. The work disability paradigm (Loisel *et al.*, 2001) conceptualizes disability by placing the worker at the centre of these various systems. While different, these systems should not function independently if they are to promote the sustainability of the RTW. Some rehabilitation studies highlight the need to integrate the workplace realities into the clinical intervention (Anema *et al.*, 2004; Costa-Black *et al.*, 2013; Durand *et al.*, 2007; Durand, Corbière, Coutu, Reinharz and Albert, 2014; Franche *et al.*, 2007; Loisel *et al.*, 1997; Loisel *et al.*, 2001; Loisel *et al.*, 2002; Shaw, Kristman and Vezina, 2013). Some of the work carried out in collaboration with workplaces underscores the important role that supervisors play in the reintegration of workers with an MSD (Durand *et al.*, 2014; Durand, Nastasia, Coutu and Bernier, 2017; Nastasia, Durand and Coutu, 2017).

Positioned between having to meet the performance requirements set by management and to address issues specific to managing their own teams, supervisors are key actors in the success of organizations and play a decisive role in maintaining the health and safety of the workers under their authority. However, few studies focus specifically on the role, responsibilities, and actions of supervisors in the process aimed at achieving sustainable RTW. It is nonetheless essential to study these aspects if we are to better understand how to harmonize supervisors' various roles and responsibilities within the organization (e.g. in production, prevention, and accident investigation) and to explore the sharing of responsibilities among supervisors and the other actors working to facilitate sustainable RTW.

2. STATE-OF-THE-ART

2.1 Supervisors' Involvement in Essential Work-Disability Prevention Activities

Two literature reviews retained in the literature search identified eight activities that could be described as essential to achieving the sustainable RTW of workers with an MSD (Durand *et al.*, 2014; Nastasia *et al.*, 2017). These essential activities are:

- 1) Contacting the worker during his absence;
- 2) Evaluating the worker and his work situation;
- 3) Offering, planning, and implementing the RTW solution;
- 4) Welcoming the worker back, and implementing and adjusting the RTW solution;
- 5) Doing follow-up of the RTW solution;
- 6) Establishing communication among the actors (e.g. supervisor and worker post-RTW);
- 7) Promoting collaboration within the work team and support for the worker;
- 8) Coordinating with the other actors in the RTW process.

A number of studies on work disability prevention have found that supervisors are key actors in the process aimed at the sustainable RTW of workers with an MSD. They highlight the role of supervisors in facilitating the workplace intervention component of rehabilitation programs (Durand *et al.*, 2014; Kendall, Burton, Main and Watson, 2009; Nastasia *et al.*, 2017; National Institute for Health and Clinical Excellence, 2009; Stock *et al.*, 2005). During the process aimed at achieving sustainable RTW, the supervisor's main role is to support the injured worker, particularly during his initial return and subsequent efforts to stay at work (Faucett and McCarthy, 2003; Leyshon and Shaw, 2008; Shaw *et al.*, 2014; Wagner *et al.*, 2015). This support may also include staying in contact with the worker during his sick leave and maintaining the links between the worker and his co-workers (Huang, Pransky, Shaw, Benjamin and Savageau, 2006; Shaw, Robertson, Pransky and McLellan, 2003; White *et al.*, 2013).

Supervisors' ability to perform their role in RTW can be facilitated if they receive support from their organization (Durand *et al.*, 2014). This support can take the form of a policy on worker health and sustainability at work (Durand *et al.*, 2014). The main components of such a policy concern instilling a disability prevention culture (MacEachen, Clarke, Franche and Irvin, 2006), providing appropriate and sufficient information and training for the actors involved (Durand and Richard, 2018; Higgins, Weiner and Young, 2012), and using specialized external resources (multi-disciplinary rehabilitation program, ergonomist, etc.) for interventions in complex situations (Briand, Durand, St-Arnaud and Corbière, 2008; Durand *et al.*, 2007; Higgins *et al.*, 2012). However, these studies rarely specify how to operationalize the content.

Support from the organization can also take the form of providing resources on the individual (physical or psychological), social, or organizational levels. When enough quality resources are made available, they have a positive effect on employees, fostering their learning and development, as well as their involvement in the organization (Durand and Richard, 2018; Leka and Jain, 2010; Briand *et al.*, 2008). However, the literature has paid little attention to the roles and responsibilities of the various actors involved in the RTW process in the workplace (e.g. supervisor, RTW coordinator). Yet supervisors, who have many responsibilities (such as production and prevention) in the context of the organization's objectives, could well benefit from specific courses of action pertaining to the essential activities in which they are involved or have to collaborate.

2.2 Sharing Responsibilities with Other RTW Actors

Supervisors are clearly not the only actors within organizations who are involved in the process aimed at achieving the sustainable RTW of workers with occupational injuries. Several studies underscore the importance of supervisors' collaboration with other actors, particularly the Human Resources (HR) manager responsible for the RTW and the worker himself (Durand *et al.*, 2017; Shaw, Hong, Pransky and Loisel, 2008). Moreover, individuals performing the role of RTW coordinator within companies mainly report collaborating with workers who have occupational disabilities and with their supervisors (Durand *et al.*, 2017). According to RTW coordinators, worker-supervisor contact provides important leverage for the RTW. This phenomenon was also observed during a multiple case study conducted in four different organizations in Québec. The beneficial effect was mainly observed in the development of tentative and gradual RTW solutions (Nastasia *et al.*, 2017). This collaboration appears necessary to take into account injured workers' capacities as they reintegrate into the productive activities of their departments, which are managed by their supervisors (Nastasia *et al.*, 2017). However, while that study examined workplace practices and the conditions favourable or unfavourable to RTW in organizations in Québec, it did not specify the conditions required for the successful involvement of supervisors in terms of collaborating with the worker and the other members of his work team.

2.3 Role and Responsibilities of Supervisors Regarding Sustainable RTW

One study on supervisors' responsibilities during implementation of the RTW solution found that accommodations are mostly made at the physical level (purchase of new equipment, adjustment of the work station, etc.) (Shaw, Robertson, McLellan, Verma and Pransky, 2006). Yet a RTW solution that ensures sustainability (no relapse or aggravation) must also take other factors into account, such as organizational culture, physical and material resources available to supervisors when planning accommodations, and interpersonal relations prior to the worker's sick leave and throughout the RTW process. In fact, organizational factors (leadership, policies and procedures) appear to be associated with the support that supervisors are able to give workers through accommodations (Kristman *et al.*, 2017).

In any change process, it is essential that action be taken at different levels within organizations (Argyris, 1993): the production of goods or services, maintenance of relationships between groups and individuals, and adaptation to the particularities of the environment. As pointed out by Bourmaud and Rétaux (2012), it is essential, if we are to keep work-disabled employees at work, that these accommodations include adaptations and adjustments to work stations, but also modifications to the work itself (distribution of work tasks, adjustments to production quotas, etc.). This requires the participation of co-workers, supervisors, and possibly other actors, to ensure better understanding of the individual and collective activities and of the overall organization of the work. However, studies on supervisors' actions in preventing work disability start with the premise that supervisors have a degree of autonomy that allows them to make these accommodations in their respective organizations (Shaw *et al.*, 2006). In practice, this does not always appear to be the case (Baril, Clarke, Friesen, Stock and Cole, 2003; Burton, Bartys, Wright and Main, 2005).

In particular, certain unfavourable conditions could limit supervisors' activities. For example, work stations that could be adjusted for workers with an MSD may be more or less available, or harder or easier to adapt, depending on the organization (Andersen, Kines and Hasle, 2007; Feuerstein, Shaw, Lincoln, Miller and Wood, 2003). Similarly, the production quotas that supervisors have to meet may hinder the support they can offer workers who still have disabilities and who may be on temporary assignments or returning to work gradually (Baril *et al.*, 2003). It is therefore imperative to examine what resources are given to supervisors by their organizations to enable them to meet their RTW responsibilities. Supervisors also have other responsibilities in their organizations (e.g. in production and accident prevention), making it equally important to study how their responsibilities during the RTW process can be harmonized with the responsibilities more traditionally associated with the supervisor role.

2.4 Feasibility and Applicability of the Recommendations for Supervisors in Québec

In the past few decades, the effectiveness of several programs aimed at facilitating RTW following a disability has been demonstrated (Aas *et al.*, 2011; Carroll, Rick, Pilgrim, Cameron and Hillage, 2010; Franche *et al.*, 2005). However, the level of implementation of these programs in the workplace still remains low (Durand *et al.*, 2017; Durand and Richard, 2018; Maiwald, de Rijk, Guzman, Schonstein and Yassi, 2011; Nastasia *et al.*, 2017). This may be related to the complexity of the interventions and the variation in contexts (Burton *et al.*, 2005; Durand and Richard, 2018; Gensby and Husted, 2013; Iles, Wyatt and Pransky, 2012). It also appears that practices vary according to the organization's characteristics (Nastasia *et al.*, 2017). We therefore need a better understanding of how these courses of action could apply specifically to Québec supervisors working in different contexts.

In conclusion, given the vital role that supervisors play in the RTW process of workers with a work-related MSD, their activities warrant examination, particularly their participation in workplace activities that are essential to achieving sustainable RTW. To date, little is known about their actions and the conditions conducive to their active collaboration with the worker and other actors in the organization, in the various RTW activities. It is therefore important to continue studying work disability, notably from the employer's perspective, and more specifically, in connection with the supervisor's roles and responsibilities regarding sustainable RTW.

3. RESEARCH OBJECTIVES

The general objective of this study was to propose courses of action for supervisors during the process aimed at achieving the sustainable RTW of workers with a work-related MSD, and to explore their applicability in various organizational contexts and industry sectors in Québec.

3.1 Specific Objectives

- 1) Describe the concrete actions taken by supervisors during the process aimed at achieving the sustainable RTW of workers following a work-related MSD, the different problems they face, and the problem-solving strategies they use.
- 2) Study the conditions favourable and unfavourable to supervisors' involvement in work disability prevention.
- 3) Develop courses of action for harmonizing the role and responsibilities of supervisors regarding sustainable RTW with their other roles in the organization (e.g. in production and accident prevention) and with the roles and responsibilities of other organizational actors working to prevent work disability.
- 4) Verify the pertinence, feasibility, and applicability of these courses of action in various organizational contexts and industry sectors in Québec.

The overall project was approved by the Research Ethics Committee of the CIUSS de l'Estrie – CHUS (2017-1551).

3.2 Terminology

In Québec, supervisors are the individuals responsible for a given work site or who have authority over one or more workers. In practice, this definition applies to different categories of employees: foremen, shop staff, members of the bargaining unit, and even people whose job titles do not include the word "*supervisor*." Supervisors' responsibilities include the following:

- determining what tasks are to be performed and by whom;
- determining and overseeing how the work is performed;
- managing resources such as personnel, facilities, equipment, and budget;
- determining what equipment should be used on the work site and making the appropriate arrangements;
- deciding the composition of a work team;
- determining the working hours;
- handling workers' complaints directly; and
- ensuring that health and safety problems are resolved.

This is by no means an exhaustive list of supervisors' responsibilities. Other responsibilities, whether formalized or not by organizations, may be added to these, just as some of those listed here may be excluded.

Table 1 provides definitions of the concepts applied to reach the specific objectives. These definitions are the net result of consulting the dictionary (*Le Petit Robert de la langue française*, 2009) and specialized documents on ergonomic interventions (St-Vincent *et al.*, 2011), disability management (Dyck, 2017), and organizations. The definitions given are specific to the context of sustainable RTW.

Table 1. Operational Definitions

Concept	Definition and clarifications	Example
Role	Function of one or more individuals in the context of a specific objective (sustainable RTW) that is related to the organization's mission.	Distributing the work among members of the work team in order to attain productivity and quality objectives.
Responsibility	One or more of the tasks expected of a person and eventually measured by indicators, in connection with a specific role assigned to that person as part of his functions within an organization.	Carrying out accident investigations.
Action	Concrete step taken individually or in interaction with other actors. Clarification: An action is taken by an individual in a particular situation at a specific point in time.	Informing the other workers of the adjustments made, the support required from them, and the period during which the worker will be reintegrated into his normal tasks prior to returning to work.
Essential activity	An action or a set of actions aimed at achieving the same outcome (the RTW) and carried out by one or more individuals. In the context of this study, essential activities constitute recommendations that emerged from studies on the activities and conditions that should be prioritized to promote sustainable RTW.	Collaborating with the worker is essential for a sustainable RTW. It implies actions taken by both the supervisor and other actors who share this objective and at different stages during the process aimed at achieving sustainable RTW.
Problem	Issue causing one or more difficulties carrying out an action or a set of actions, for an individual or group of individuals seeking to perform a role and responsibilities. Clarification: In the context of our study, problems refer to the difficulties supervisors encounter when carrying out various actions.	A lack of resources may be the cause of difficulties in making appropriate adjustments to the worker's tasks during the RTW. This problem may be related to a supervisor who is new to his duties or to all the supervisors in an organization.
Strategy	An action or a set of actions aimed at achieving the same outcome and carried out by an individual or a group of individuals, and which, under certain conditions, solve a particular problem.	The supervisor takes actions to ensure that the worker and his co-workers respect the functional limitations issued by the physician, at all times.
Condition	An aspect of the organizational, environmental, or individual context that is favourable or unfavourable to carrying out the actions associated with an individual's role or responsibilities, or those of a group of individuals.	Providing supervisors with training and coaching regarding ergonomic factors enables them to propose appropriate accommodations.
Course of action	Strategy aimed at performing the role and responsibilities related to achieving sustainable RTW.	Supporting the worker during his RTW and efforts to stay at work.

Legend: RTW – return to work.

4. METHODOLOGY

A sequential, essentially qualitative, design was used. It included three distinct parts, each associated with one or more specific objectives. The first part consisted of performing a literature review that involved a systematic search (Grant and Booth, 2009) concerning the role and responsibilities of supervisors regarding the sustainable RTW of workers with an MSD. This part served to describe the concrete actions recommended for supervisors in the literature, the various problems they encounter, and the problem-solving strategies they use (objective 1). It also identified the conditions favourable or unfavourable to supervisors' ability to perform their role and responsibilities regarding sustainable RTW (objective 2).

The second part consisted of performing a secondary analysis of interviews conducted previously in a multiple case study (Nastasia *et al.*, 2017). This part served to identify the concrete actions taken by supervisors in different work contexts in Québec, pinpoint the problems they face, and highlight their problem-solving strategies (objective 1), in light of the conditions favourable or unfavourable to their ability to perform their role and responsibilities regarding sustainable RTW (objective 2).

A synthesis of the results of parts 1 and 2 led to the development of a first version of possible courses of action for harmonizing supervisors' responsibilities regarding sustainable RTW with their other responsibilities in the organization (e.g. in production or accident prevention) and with those of other actors seeking to prevent work disability (objective 3).

The third part consisted of exploring the pertinence, feasibility, and applicability of these courses of action in various organizational contexts and industry sectors in Québec. This was done through individual consultations conducted via an online questionnaire-based survey, followed by focus groups (objective 4). In this study, pertinence was defined as the soundness of the logic of a proposed course of action. Feasibility referred to the potential of a particular course of action to facilitate the RTW process within the participant's organizational context. Applicability referred to the potential for applying the courses of action as a whole and in the context of Québec organizations.

Figure 1 provides an overview of the methodological process followed in the study:

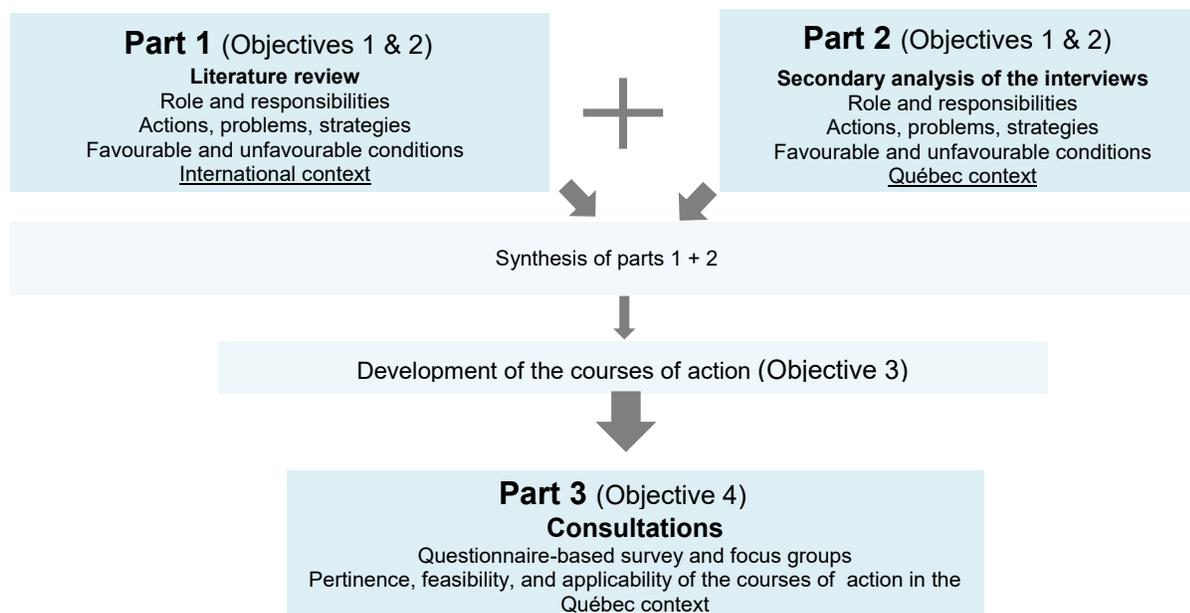


Figure 1. Overview of the Study’s Methodological Process.

4.1 Part 1: International Context (Objectives 1 and 2)

4.1.1 Type of review and main questions explored

A systematic search and review (Grant and Booth, 2009) was performed. An integrative approach (Whittemore and Knafl, 2005) was retained for the analysis in order to produce a synthesis of the current knowledge on the roles and responsibilities of supervisors in the process aimed at achieving sustainable RTW (objective 1). An integrative approach is a specific method of reviewing the theoretical and scientific literature for the purpose of gaining a comprehensive understanding of a phenomenon. Our description of the study methodologies is based on Grant and Booth’s recommended Search, Appraisal, Synthesis and Analysis (SALSA) framework (2009). Attention was also paid to describing effective actions and conditions favourable or unfavourable to the supervisor’s involvement in work disability prevention (objective 2).

The following questions were explored to this end:

- What are the roles and responsibilities of supervisors in a process aimed at achieving sustainable RTW?
- What concrete actions should supervisors take themselves or in collaboration with other actors or departments in a process aimed at achieving sustainable RTW?
- What are the different problems faced by supervisors and what strategies do they use to solve them?

- What are the conditions that are favourable or unfavourable to supervisors' involvement in work disability prevention?

4.1.2 Data collection

Three bibliographic databases (PubMed, OVID, and Web of Science) were consulted to identify documents published between 1995 and January 2017, in order to include literature that was based on the work disability paradigm (Loisel *et al.*, 1994; Loisel *et al.*, 2001). Established beforehand in collaboration with a specialized librarian, three categories of keywords – “musculoskeletal disorder,” “return to work,” and “supervisor” – and their various combinations with two operators (AND and OR), were used. A total of 788 documents were identified before eliminating duplicates and titles with no abstracts.

4.1.3 Selection

To retain only those documents that would potentially contribute to the literature review, two members of the research team (SG, IN) independently selected documents based on their title and abstract, by applying the inclusion and exclusion criteria.

The inclusion criteria were as follows:

- i. the study examines, at least in part, the role and responsibilities of supervisors in the process aimed at achieving sustainable RTW;
- ii. at least one group of participants in the study comprises workers on sick leave due to an MSD or another type of injury, whether work-related or not;
- iii. the study includes concrete recommendations on actions, interactions, or conditions favourable to performing the role and responsibilities of supervisor regarding sustainable RTW.

The exclusion criteria were as follows:

- i. the study focuses mainly on aspects of primary prevention;
- ii. the study focuses mainly on aspects of productivity;
- iii. the study focuses mainly on the role of other actors (than the supervisor) in the RTW process.

The level of intercoder agreement on the classification of the documents was 80%. Those on which there was disagreement were reviewed in the following step, during which the inclusion and exclusion criteria were applied again after reading the full article. the coders disagreed during this step, a consensus-based decision was made after consulting other members of the research team.

4.1.4 Data analysis

The documents were described using an Excel data extraction spreadsheet with the following headings: authors, subject, objective, methodology, perspective and contextual element, and population (see the headings in Table A1). The information was extracted by one of the coders (SG) and reviewed by a second coder (IN).

The full texts of the selected documents were summarized in such a way as to highlight the content pertinent to the research questions: (1) the supervisor's role and responsibilities in the RTW, (2) the supervisor's actions in connection with his role and responsibilities in the RTW, (3) problems faced by supervisors and problem-solving strategies used, (4) conditions favourable or unfavourable to the supervisor's involvement in the RTW. No distinction was made in the processing of informational content, by type of study.

The content of each document was then categorized according to pre-determined themes based on the eight activities described in the literature as essential to sustainable RTW (Durand *et al.*, 2014; Nastasia *et al.*, 2017). Again, these essential activities were (1) contacting the absent worker, (2) evaluating the worker and his work situation, (3) offering, planning, and implementing the RTW solution, (4) welcoming the worker back, and implementing and adjusting the RTW solution, (5) doing follow-up of the RTW solution, (6) establishing communication among the actors (e.g. supervisor and worker post-RTW), (7) promoting collaboration within the work team and support for the worker, and (8) coordinating with the other actors in the RTW process. Other themes emerged and were added during the categorization process (see the headings in Table A2). One synthesis per theme was written for each activity to help develop the courses of action.

4.2 Part 2: Québec Context (Objectives 1 and 2)

The second part of the study involved the secondary analysis of data collected during an earlier multiple case study (Nastasia *et al.* 2017) carried out (from January 2014 to September 2015) at four employers operating in two different industry sectors in Québec: manufacturing and healthcare. In that study, a case was defined as including all the RTW procedures (both formal and informal) and RTW practices, as well as the conditions under which they were applied in a workplace. Various sources of information were consulted for each case, including workers who were back at work following an MSD and key actors in the organization who were involved in their returns. A total of 45 semi-structured interviews were conducted with workers and key actors in that study.

4.2.1 Context of the primary study (Nastasia *et al.*, 2017)

The 45 interviews were conducted with 14 workers and 32 key actors (one interview was conducted with two people). The workers had to have been back at work for a minimum of six months following a CNESST-compensated absence of at least six weeks from their regular jobs, within the two years prior to the study. Workers involved in legal disputes, definitively assigned to other jobs due to the accident, or in conflict with managers, co-workers, or union representatives were excluded. The key actors were supervisors (n = 13); RTW administrators/counsellors (n = 4); Human Resources advisors (n = 5); health and safety committee representatives (n = 5); union representatives (n = 4); and a member of the

employee's work team ($n = 1$). These key actors had either been present in the organization during the worker's RTW process or had arrived afterward. The sociodemographic data and characteristics of the workers and key actors, as well as the characteristics of the organizations participating in the primary study, are presented in Appendix B (tables B1, B2, and B3).

One research professional and one researcher from the research team interviewed the workers and the various key actors (supervisor, OHS counsellor, manager, and Human Resources advisor, co-worker, and union representative). Two interview guides were used: one for workers and the other for key actors. The questions and topics explored were described in an earlier study (Durand *et al.*, 2014). Each guide had two parts. The first part, common to both guides, was descriptive and collected information on the worker's or key actor's characteristics (job title, training and job tenure, experience). The second part of the key actors' guide collected information on their role and responsibilities in the RTW of one or more workers, the concrete actions taken by themselves and by other actors, and the factors favourable or unfavourable to the worker's RTW. For the key actors hired by the organization after the worker's RTW process and who were unable to describe a specific RTW situation, the information collected concerned solely their role and responsibilities regarding RTW as prescribed by the organization, and the favourable and unfavourable conditions based on their experience with RTW in general within the organization. The information collected from workers in the second part of their interview concerned their RTW experience in the organization (key actors and practices, difficulties, aspects favourable or unfavourable to the RTW).

Each person consented to participate in the interview and to the use of their data in all current and subsequent studies (CSSS-Charles-LeMoyne, AA-HCLM-13-014).

4.2.2 Secondary data analysis

The interviews were transcribed and coded using QSR.N'VIVO software (version 11) (Gibbs, 2002). A first level of coding identified all content in the participants' comments that was related to the supervisor's role and responsibilities in the RTW process. A second level of coding served to identify the different perspectives (workers, supervisors, and other actors). Lastly, a third level of coding identified themes related to the main focuses of this study: the supervisor's role and responsibilities, the specific actions taken by the supervisor alone or in interaction with the other key actors, the conditions favourable or unfavourable to the ability to perform the supervisor's role in the RTW of a worker following sick leave for a work-related MSD, and recommendations concerning possible courses of action. The NVivo coding tree is shown in Table B4.

Coding was performed by a research professional (JD) and verified by one of the researchers (IN). Intercoder agreement of 80% was established on the basis of a sample comprising the verbatim transcripts of three different participants (a supervisor, another actor, and a worker). Disagreements were discussed and resolved through a consensus process. The advantage of this process is that it helped identify potential problems associated with the coding, and thus to find solutions in order to increase the level of reliability (Landry, 1997).

Content analysis was performed on the verbatim transcripts of the codified interviews (Bardin, 2013). For each codified interview, the text associated with each of the themes arising from the research questions – (1) the supervisor's role and responsibilities in the RTW, (2) the

supervisor's actions in connection with his role and responsibilities in the RTW, (3) the problems faced by supervisors and their problem-solving strategies, and (4) the conditions favourable or unfavourable to their involvement in the RTW – was categorized under sub-themes. The themes also reflected the topics in the interview guide for key actors. The sub-themes encompassed groups of comments categorized according to the essential activities to which they were related. No sorting was done by number of themes or sub-themes. This made it possible, through a systematic and iterative reading of all the elements coded on the basis of the explanations given, to identify similarities and differences between the roles and responsibilities, actions, and conditions mentioned by each category of actor (worker, supervisor, and other actor) and by each "home organization" (A, B, C, and D). Sub-themes and themes could emerge at any time during the categorization process.

4.3 Development of Courses of Action for Supervisors during the Process Aimed at Achieving the Sustainable Return to Work of Workers Following an MSD (Objective 3)

The results of parts 1 and 2 were pooled and compared in order to develop possible courses of action. A synthesis was written for each essential activity by grouping together similar types of actions. Courses of action and specific actions were thus developed by three members of the research team from an interdisciplinary perspective (ergonomics, management of organizations, and psychology). In essence, the criteria that entered into decision making were as follows: overlap among the various items, repetition within certain statements, applicability of the actions in the Québec context, reflection of the language commonly used in organizations, and the supervisor's involvement in the process aimed at achieving sustainable RTW.

4.4 Part 3: Consultations (Objective 4)

An essentially qualitative design was chosen (Geoffrion, 2003) to explore the pertinence, feasibility, and applicability of these courses of action in various organizational contexts and industry sectors in Québec. This part of the study included two consultation phases: (1) individual consultations conducted through a questionnaire-based survey on the pertinence, feasibility, clarity of wording, comprehensiveness, and applicability of each separate course of action and its associated actions, and on the applicability of the courses of action as a whole; and (2) consultation conducted mainly through group discussions. Two focus groups were thus held to explore in greater depth the suggestions put forward in the individual consultations. To collect comments from a maximum number of actors, individual semi-structured interviews were also conducted with three participants who were unable to participate in the focus groups.

4.4.1 Participants

A convenience sample of 12 to 24 participants was sought for the two consultation phases. The number was determined on the basis of the literature (Geoffrion, 2003). This number of participants is known to promote a certain degree of data saturation in the information categories or the main topics under study (i.e. new data for a larger number of participants add no new meaning to what is already understood) (Geoffrion, 2003). This number is also recognized as promoting the smooth functioning of the group (Geoffrion, 2003). The participants sought were supervisors and other actors in the RTW process in order to further explore the legal, medical, and other aspects of the previously developed courses of action. Participants had to have at least one year of experience in activities aimed at sustainable RTW in their department or service and be able to express themselves in French. All participants in the study signed a consent form pre-approved by the Research Ethics Committee of the CIUSSS de l'Estrie (MP-31-2015-994).

4.4.2 Recruitment strategy

Participants were recruited in different ways: via contacts of members of the research team, through advertisements posted on the IRSST's website, and at various OHS events.

4.4.3 Instruments

4.4.3.1 Agreement rating questionnaire on the proposed courses of action for supervisors

The agreement rating questionnaire on the proposed courses of action for supervisors during the process aimed at achieving sustainable RTW was an adapted version of one previously used in other studies (Bouffard, 2018; Coutu *et al.*, 2015). Two members of the research team (IN, JD) made the adaptations collaboratively, and they were then verified by another member (M-FC). The adapted version was pre-tested on three participants with characteristics similar to those of the target population. The participants had to indicate their agreement or disagreement (yes/no) with the (1) pertinence, (2) feasibility, (3) clarity of the wording, and (4) comprehensiveness (McLaughlin and Jordan, 2004; Rossi, Lipsey and Freeman, 2004) of each course of action. When they disagreed, they were asked to suggest improvements. Next, four items concerned the (1) pertinence, (2) feasibility, (3) clarity of the wording, and (4) applicability of the courses of action as a whole. Participants were asked to indicate their level of agreement with these four items on a four-point Likert scale (ranging from "totally disagree" to "totally agree").

4.4.3.2 Sociodemographic questionnaire

In addition to the agreement rating questionnaire, the participants were asked 10 questions about their sociodemographic characteristics. These questions concerned the number of years of experience they had with returns to work, the characteristics of the organizations for which they worked, and the jobs they held there, among other things.

4.4.3.3 Interview guide for the focus groups

The guide was developed to further explore the suggestions made by the participants during the individual consultations. It reiterated each comment made for each course of action with a view to gaining greater insight into the pertinence, feasibility, and applicability of the courses of action in the Québec context.

4.4.4 Procedure and data collection

For the individual consultations, a Web link to the questionnaire published using the online tool *SurveyMonkey* was emailed to each participant. At the same time, the participants received and signed the consent form previously approved by the Research Ethics Committee. The questionnaire took a maximum of 45 minutes to complete.

All comments and suggestions obtained from the individual consultations were transcribed verbatim for each course of action and depersonalized in a synthesis document. This document was handed out and read aloud to the participants at the start of the focus groups. In keeping with the interview guide, a psychologist with extensive experience in conducting focus groups facilitated the exchanges between participants (in our study, this was M-FC). A research professional took notes. The discussions within the groups were audio-recorded and subsequently transcribed verbatim. The two focus groups lasted three hours each.

For the participants who were unable to join the focus groups, one of the researchers (IN) and one research professional (JD) went to their respective workplaces or held a conference call with them. These individual interviews were conducted following the same principles and rules as with the focus groups, and averaged an hour and a half in length.

Regarding ethical aspects, to ensure participant confidentiality, the data were immediately depersonalized. Only the research team members had access to them, using a pre-established code. To obtain the participants' informed consent, the following points were clearly explained to them on the consent form: the aim of the study, the reason they were being asked to participate, the risks and disadvantages, the mechanisms for ensuring confidentiality, and their right to withdraw without prejudice at any time. An amount of \$200 was given to each participant at the end of the focus groups or interviews as compensation for the time they spent participating in the study, unless a specific agreement was in place with an employer who wished to remunerate the worker for his involvement.

4.4.5 Analyses

Two types of analyses were performed. First, for the individual consultations, the frequencies of the “yes” and “no” answers on the questionnaire were compiled. Next, content analysis was performed for the consultations conducted via focus groups and individual interviews. To this end, as in part 2, the interviews were transcribed and coded using QSR.N'VIVO software (version 11) (Gibbs, 2002). The first level of coding served to identify the participants' comments by the courses of action to which they related. The second level of coding served to classify them by source (focus group or interview). The analyses involved identifying all the comments and then classifying them according to their nature and extracting the essential points: difficulties that could arise during application of the courses of action, strategies for applying the

courses of action, conditions for applying them, and proposed ways (e.g. tools) of facilitating their deployment. All participant comments were examined during the analysis. The main points were illustrated using excerpts from the verbatim transcripts. Two evaluators did the coding and carried out the analyses (RR, AQ). Where there were coding discrepancies, each situation was discussed until consensus was reached between the two coders and one researcher (IN).

The content analysis of the verbatim transcripts brought to light, for each course of action, the clarifications provided by the participants regarding problems that supervisors could encounter in applying the courses of action, strategies for overcoming the problems, and conditions needed to apply the courses of action. It also highlighted various contextual elements that could impact the application of the proposed courses of action in organizations.

5. RESULTS

5.1 Part 1: Literature Review

5.1.1 Description of the documents

The document search and selection process is detailed in Figure 2. The systematic search of the literature identified 788 documents. After eliminating duplicates and articles with no abstracts and then applying the selection criteria, 16 documents were retained. To these were added three others identified in the reference sections of the selected documents. These documents spanned the period 2003-2017. Different types of documents were included in our literature review: 14 empirical studies, including seven that were qualitative (focus groups, interviews, and expert workshops), six that were quantitative (survey, controlled trial, and cross-sectional study), one mixed methods study (both qualitative and quantitative), and five mixed data reviews (see Appendix A, Table A1). Two reports (Burton *et al.*, 2005; Gensby *et al.*, 2012) and one guide on identifying and solving problems experienced during RTW (MacEachen, Chambers, Kosny and Keown, 2009) were also included in the documents reviewed as they provided guidelines and recommendations regarding RTW, based on the approaches of experts (researchers or workshops involving the actors responsible).

The documents retained looked mainly at the effectiveness of the components of disability management (training, workforce retention, social support, and quality of supervision), and on the description of RTW practices in the workplace. These were reflected in different perspectives (e.g. those of injured workers, employers, researchers, and supervisors themselves) of the role and responsibilities of supervisors. Some of the documents concerned a population already back at work. Most focused specifically on musculoskeletal injuries, without systematically specifying whether they involved work-related injuries or not.

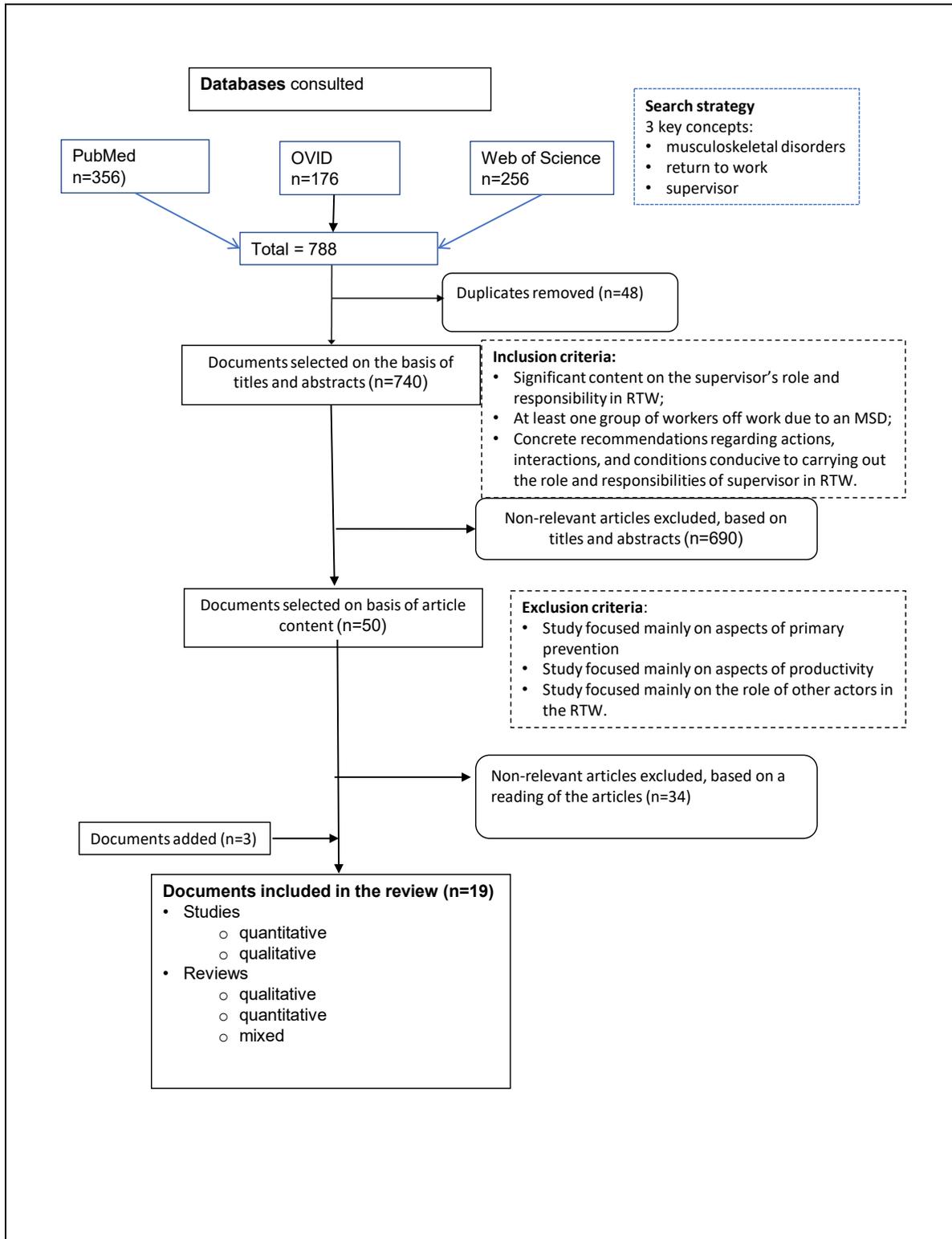


Figure 2. Document Search and Selection Process.

5.1.2 Responsibilities mentioned regarding the supervisor's role during the process aimed at achieving sustainable return to work

Generally speaking, the literature review highlighted the role played by supervisors in the process aimed at achieving sustainable RTW. Different authors associate different responsibilities with this role: participating in the formalization of the employer's sick leave management and RTW policies and procedures (Huang *et al.*, 2006; Kristman *et al.*, 2017; Shaw *et al.*, 2003; Shaw *et al.*, 2014), ensuring a healthy and safe work atmosphere and environment (Burton *et al.*, 2005; Habeck, Hunt, Rachel, Kregel and Chan, 2010; Kristman *et al.*, 2017; Shaw *et al.*, 2014), interacting with other actors when they have to interpret and follow the guidelines recommended by the physician (Durand *et al.*, 2014; Gensby *et al.*, 2012; MacEachen *et al.*, 2006; MacEachen *et al.*, 2009; Shaw *et al.*, 2003), paying close attention to relations between the worker and the other employees (Iles *et al.*, 2012; Shaw *et al.*, 2003), supporting the worker (Holmgren and Ivanoff, 2007; Kristman *et al.*, 2017; Maiwald *et al.*, 2011; Wagner *et al.*, 2015; Wrapson and Mewse, 2011), and proposing appropriate work accommodations (Durand *et al.*, 2014; Habeck *et al.*, 2010; Kristman *et al.*, 2017; Shaw *et al.*, 2003; Shaw *et al.*, 2014).

5.1.3 Concrete actions taken by supervisors

The literature review pointed to 22 actions that supervisors can take, either on their own or in interaction with other actors. These were grouped under the eight previously identified essential activities and two other activities that emerged from analysis of the identified actions. All the essential activities, as well as the specific actions and conditions favourable or unfavourable to supervisors' ability to carry them out, are presented in Table A2.

Essential activity 1: Contacting the absent worker

First, a number of authors agreed on the potential benefits of establishing early contact with the worker on sick leave and of communicating a message conveying interest and support to the person (Burton *et al.*, 2005; Gensby and Husted, 2013; Holmgren and Ivanoff, 2007; Maiwald *et al.*, 2011). Several studies identified this contact as a crucial time for establishing cooperation, flexibility, and the future credibility of the supervisor/worker relationship. However, there was no consensus regarding the specific point in time when this action should systematically be taken. For example, one systematic review of the qualitative literature (MacEachen *et al.*, 2006) noted that even if establishing prompt contact with injured workers is part of numerous RTW programs, there are times when neither the worker nor the supervisor is in a suitable state to make such contact following an injury. Prompt contact is not beneficial when the worker had pre-injury performance problems or problematic relations in the workplace (with co-workers or supervisors), or when the worker sees the employer as unwilling to provide support to facilitate his reintegration (MacEachen *et al.*, 2006).

Essential activity 2: Evaluating the worker and his work situation

With regard to evaluating the worker and his work situation, the articles emphasized the importance of supervisors providing the necessary information about specific work tasks to create safe modified-work positions (Baril *et al.*, 2003; Shaw *et al.*, 2014; Wrapson and Mewse, 2011). A number of actions were envisaged in interaction with the organization's occupational health and safety staff and the person who coordinates the RTW, particularly regarding the planning of accommodations (Maiwald *et al.*, 2011).

Essential activity 3: Offering, planning, and implementing the RTW solution

A number of authors mentioned that supervisors should participate in offering, planning, and implementing RTW solutions. Given their knowledge of the work requirements and situations, supervisors are in a position to propose meaningful, useful, and non-demeaning tasks for the injured worker: light work, gradual return to usual tasks, accommodations and adjustments (Baril *et al.*, 2003; Gensby *et al.*, 2012; Holmgren and Ivanoff, 2007; Huang *et al.*, 2006; Kristman *et al.*, 2017; MacEachen *et al.*, 2009; Maiwald *et al.*, 2011; Shaw *et al.*, 2006; Shaw *et al.*, 2014; Wagner *et al.*, 2015; Wrapson and Mewse, 2011). According to these authors, the adjustments and accommodations made by supervisors should include several characteristics. They should be safe, appropriate, meaningful, and useful for the work team, have a productive value, and be adapted to the worker's capacities and needs, as well as feasible and in line with ergonomic principles.

Essential activity 4: Welcoming the worker back, and implementing and adjusting the RTW solution

The supervisor should meet with the worker as soon as he returns to the workplace to provide information on possible changes in how his work is organized, and to go over the tasks he is allowed to perform and the help he can expect from co-workers (Holmgren and Ivanoff, 2007). If adjustments to production requirements are needed, the supervisor should take them into account, and, with the approval of his superiors, implement them, while ensuring that the worker's limitations are respected and factoring in the workload of the other team members (Baril *et al.*, 2003; Shaw *et al.*, 2006; Wrapson and Mewse, 2011).

Essential activity 5: Doing follow-up of the RTW solution

A number of authors reported that during follow-up of the RTW, supervisors should remain attentive to the worker's health, progress, and relations with co-workers (Durand *et al.*, 2014; Gensby and Husted, 2013; Holmgren and Ivanoff, 2007; Huang *et al.*, 2006; Kristman *et al.*, 2017; MacEachen *et al.*, 2006; MacEachen *et al.*, 2009; Shaw *et al.*, 2014).

Essential activity 6: Communicating with the worker after the RTW

To maintain contact with the worker throughout the RTW process (both before and after the return to work), it appears very important for the supervisor to pass on a positive message of encouragement, confidence, and respect (Durand *et al.*, 2014; Habeck *et al.*, 2010; Holmgren and Ivanoff, 2007; Huang *et al.*, 2006; MacEachen *et al.*, 2009).

Essential activity 7: Collaborating with the work team and supporting the worker during his RTW

Collaborating within the work team and supporting the worker include actions that supervisors take together with other actors involved in the process aimed at achieving sustainable RTW (Durand *et al.*, 2014; Habeck *et al.*, 2010; Holmgren and Ivanoff, 2007; Huang *et al.*, 2006; MacEachen *et al.*, 2009). These actions essentially consist of clarifying the circumstances and issues involved in the RTW solution retained (Durand *et al.*, 2014; MacEachen *et al.*, 2009) and of sharing all information relevant to the solution and to the adjustments needed, throughout the entire process and with all the other actors (Durand *et al.*, 2014; Holmgren and Ivanoff, 2007; Shaw *et al.*, 2003; Shaw *et al.*, 2014).

Essential activity 8: Coordinating the actions aimed at facilitating sustainable RTW

Some authors mentioned supervisors' interactions with decision-making actors to help coordinate actions during the RTW process. Supervisors must provide all relevant information about the work to the (internal or external) person responsible for coordinating the RTW (Holmgren and Ivanoff, 2007; Shaw *et al.*, 2003) and about any changes in the worker's condition that could lead to an aggravation or a relapse (Durand *et al.*, 2014; Shaw *et al.*, 2014).

Essential activities that emerged

Two essential activities emerged from the actions identified in the literature: (1) formalizing policies and procedures, and (2) acquiring knowledge and focusing on experience and skills to facilitate sustainable RTW. The main problems mentioned by the authors (MacEachen *et al.*, 2006; Shaw *et al.*, 2003; Shaw *et al.*, 2006; Shaw *et al.*, 2014) appear to result from the absence or lack of clarity in procedures and instructions, or from lack of knowledge about the actions expected of supervisors in the context of their RTW responsibilities.

Essential activity 9: Formalizing policies and procedures regarding sustainable RTW

According to several authors (MacEachen *et al.*, 2006; Shaw *et al.*, 2003; Shaw *et al.*, 2006; Shaw *et al.*, 2014), the formalization of policies and procedures depends on the existence of favourable conditions within the organization (sub-section 5.1.4). Formalizing proactive procedures for managing disability (including the means and incentives for supervisors to make flexible work arrangements and create forums for dialogue among the actors) appears to be one of the organizational strategies that helps in the efficient management of workers with an MSD (Burton *et al.*, 2005; Gensby *et al.*, 2012; Maiwald *et al.*, 2011). The supervisor's responsibilities in this formalization process consist of helping to update the policies and procedures when requested, and adopting and following the directives they give (Gensby and Husted, 2013; Huang *et al.*, 2006; Kristman *et al.*, 2017).

Essential activity 10: Acquiring knowledge, experience, and skills related to sustainable RTW

As with the formalization of policies and procedures, training supervisors on their responsibilities in the process aimed at achieving sustainable RTW depends on the existence of favourable conditions in their organizations (sub-section 5.1.4). By participating in various training activities, supervisors can develop the skills they need during RTW-related activities, adopt attitudes

favourable to reintegrating workers into their jobs, and improve their knowledge of the overall process (MacEachen *et al.*, 2006; Shaw *et al.*, 2003; Shaw *et al.*, 2006; Shaw *et al.*, 2014).

5.1.4 Conditions favourable or unfavourable to the supervisor's involvement in work disability prevention

The implementation of essential work-disability prevention activities and of strategies for solving the various problems that confront supervisors during the process aimed at achieving sustainable RTW depends on the conditions present in their organizations (Dionne *et al.*, 2012; Habeck *et al.*, 2010; MacEachen *et al.*, 2006; MacEachen *et al.*, 2009; Maiwald *et al.*, 2011; Shaw *et al.*, 2014) (refer to Table A2 in Appendix A for an overview of these conditions, presented by the corresponding author(s)). Two types of conditions are identified: the worker's relations with his supervisor and co-workers, and the means put in place by the organization to support supervisors.

The worker's relations with his supervisor and co-workers

Positive reactions to the worker's RTW from employers, supervisors, and co-workers constitute conditions favourable to the success of the RTW process as a whole (Huang *et al.*, 2006; Shaw *et al.*, 2003; Shaw *et al.*, 2006; Wrapson and Mewse, 2011). Relationships of trust between workers, supervisors, and co-workers (Holmgren and Ivanoff, 2007; Shaw *et al.*, 2003) promote supervisors' active and close involvement in activity planning and implementation and in the task of following up on the implementation of the RTW solution (Shaw *et al.*, 2003; Shaw *et al.*, 2006). The support that a worker receives from his supervisor during his RTW thus depends on the supervisor's opinions, attitudes, and beliefs, which may make the RTW procedures difficult to apply and/or standardize – and, if they are not taken into account – can lead to varying degrees of effectiveness in the implementation of practical solutions (Huang *et al.*, 2006). Moreover, the supervisor is in fact well placed to defend and legitimize the worker's condition and restrictions, and to facilitate work relations between the injured worker and his co-workers (MacEachen *et al.*, 2006). According to some authors, the potential for tension between worker and supervisor stemming from the supervisor's beliefs and attitudes points to the need for training. This training would inform and influence supervisors' beliefs and attitudes in order to make them as positive and open as possible to the RTW process and to injured workers in general (Durand *et al.*, 2014; Habeck *et al.*, 2010; Holmgren and Ivanoff, 2007; Kristman *et al.*, 2017; MacEachen *et al.*, 2006; Shaw *et al.*, 2003).

Conditions influencing the means put in place by the organization to support supervisors

One of the favourable conditions mentioned in the literature is the margin of manoeuvre² given to the supervisor to offer the worker light tasks, a gradual return to regular work tasks, and/or accommodations (Baril *et al.*, 2003; Burton *et al.*, 2005; Dionne *et al.*, 2012). In fact, these accommodations must take into account the worker's particularities and the issues present in the workplace, including a redistribution of tasks or a significant reduction in the work demands

² Supervisors' margin of manoeuvre is defined here as the possibility or freedom that they have, in their organizations, to provide temporary or permanent accommodations for workers returning to work, without negatively impacting the production requirements or working conditions of other members of the work team. This definition is analogous to that of the guide to the margin of manoeuvre in work situations for workers with long-term disabilities of musculoskeletal origin (Durand *et al.*, 2007).

placed on the worker and his co-workers (Baril *et al.*, 2003; Gensby *et al.*, 2012; Kristman *et al.*, 2017; MacEachen *et al.*, 2009). A scarcity of organizational resources for helping supervisors interpret functional limitations and propose appropriate accommodations and adjustments is one of the unfavourable conditions mentioned in the literature. Several authors report that supervisors appear very concerned about the minimal effectiveness of accommodations and adjustments when their implementation is accompanied by problems of trust or difficult relations (conflicts) that predate the injury (MacEachen *et al.*, 2006). Also, supervisors find that insufficient time is allocated for actions aimed at facilitating sustainable RTW, and such actions appear to take less priority than production requirements and other tasks that fall under their responsibility (MacEachen *et al.*, 2006; Shaw *et al.*, 2003; Wagner *et al.*, 2015). Appropriate mechanisms (recognition, support in difficult situations, and autonomy) could be provided in the organization to support and assist supervisors in performing their role in the RTW (Durand *et al.*, 2014).

5.1.5 Synthesis (part 1)

The literature review brought to light supervisors' actions and interactions with other actors in the RTW process, the different types of problems they encounter and problem-solving strategies they use, and the conditions favourable or unfavourable to their participation in the process, for each of the essential activities in work disability prevention. The actions and interactions gleaned from the international literature served as the basis for comparing the actions and interactions that emerged from part 2 (Québec component). The 10 essential activities retained as the basis for developing possible courses of action are presented in Table 2.

Table 2. Essential Activities Involving Supervisors in the Process Aimed at Achieving Sustainable RTW

ESSENTIAL ACTIVITY
CONTACTING THE ABSENT WORKER
EVALUATING THE WORKER AND HIS WORK SITUATION
OFFERING, PLANNING, AND IMPLEMENTING THE RTW SOLUTION
WELCOMING THE WORKER BACK, AND IMPLEMENTING AND ADJUSTING THE RTW SOLUTION
DOING FOLLOW-UP OF THE RTW SOLUTION
COMMUNICATING WITH THE WORKER AFTER THE RTW
COLLABORATING WITH THE WORK TEAM AND SUPPORTING THE WORKER DURING HIS RTW
COORDINATING THE ACTIONS AIMED AT FACILITATING SUSTAINABLE RTW
FORMALIZING POLICIES AND PROCEDURES REGARDING SUSTAINABLE RTW
ACQUIRING KNOWLEDGE, EXPERIENCE, AND SKILLS RELATED TO SUSTAINABLE RTW

Legend: RTW – return to work.

5.2 Part 2: Secondary Data Analyses

This part of the study made it possible to achieve objectives 1 and 2. The results of the literature review were then applied to the context of Québec organizations. Table 3 provides a synthesis of the results of the analyses of the comments made by the key RTW actors.

5.2.1 Description of the actors and organizations

The characteristics of the workers, key actors, and participating organizations are presented in tables B1-B3 in Appendix B.

5.2.2 Supervisor’s role during the process aimed at achieving sustainable return to work

While the questions in the interview guide focused on the supervisor’s role in the RTW process, our data analysis brought to light other roles more traditionally associated with the supervisor in organizations. The actors mentioned that planning the workforce during the worker’s absence and distributing work among members of the work team when he returns are part of the supervisor’s role in managing production. The actors also related the task of resolving conflicts that can emerge within the work team during the worker’s return to the supervisor’s role in managing relations among the workers on his team. Lastly, the supervisors who were interviewed associated the tasks of evaluating the worker’s situation and of checking that his functional limitations are respected with their role in preventing injuries, a role they find particularly demanding.

But for me, for sure, corrective and preventive measures at lower levels [of the organization], for me, they're important. I go and look. [...] I go and take a look together with them. Maybe we can do something. So that it doesn't happen again. For sure, in my mind, this is very important. (Supervisor, Organization A)

5.2.3 Concrete actions taken by supervisors, problems encountered, and problem-solving strategies

Several essential activities documented in part 1 were mentioned during the interviews in the form of concrete actions taken in the different organizations. The actors also clarified certain details regarding the actions identified in the literature review. However, the clarifications varied from one organization to the other and from one category of actor to the other, depending on the conditions available for taking these actions. These results are detailed, by organization in Table B5 in Appendix B.

Contacting the absent worker

With regard to contacting the absent worker, compared to the literature review, the supervisors interviewed specified that the main goals of this communication must be to reassure the worker that his employment relationship with the organization is intact and to maintain contact with the workplace. The supervisor may also try to find out how the worker envisages his return to work, while making sure that the worker does not perceive this contact as a means of pressuring him to return to work soon. This means that supervisors should address the worker with a friendly tone and avoid anything that might be perceived as harassment.

...an employee who is completely off work, occasionally from time to time, when it's been too long, I give them a call. To find out how they're doing. As I was saying to you, it's caring about the employee's importance. It's not, I don't call them to harass them [with questions like] when are you coming back? It's more like 'How are you doing? How do you feel? Are you starting to think about how you see your return?'. (Supervisor, Organization A)

Evaluating the worker and his work situation

A distinction can be made between evaluating the worker and evaluating the work situation. While very little mention was made of evaluating the worker, what was emphasized was the supervisors' contribution during the evaluation of the work situation, a factor also noted earlier during the literature review. However, the actors interviewed generally related the supervisor's actions in the evaluation of the work situation to the activity of planning the RTW solution, which was not perceived as being solely the supervisor's responsibility.

Planning the RTW solution

Again in line with the results of the literature review, supervisors were considered – given their knowledge of the work and jobs in their respective departments or services – to be those best placed to propose choices of tasks that could be performed by a worker on a temporary assignment (TA) and during his gradual progression toward a sustainable RTW. The actors interviewed mentioned that, whenever possible, tasks retained for the TA should be meaningful for the worker and have added value for the work team. Also, supervisors are well-placed to identify the factors favourable or unfavourable to the RTW, and in this context, should be asked to propose solutions. Compared to the literature review, the interviewees specified that, to facilitate RTW planning, it was important for supervisors to be open-minded about envisaging changes. Once the RTW solution has been identified, supervisors should ensure that the accommodations retained are feasible and check their impacts on the other members of the work team.

You check with the doctor whether people can return to work, and that's when you plan the tasks, or plan, uhhh, either that they work as extras on the work team, so that they can ease back [into their jobs] or that they do a few hours in their jobs, while being replaced, uhhh, for the hours when they're not there. (Supervisor, Organization C)

Welcoming the worker back, and implementing and adjusting the RTW solution

When preparing for the worker's return, the supervisor is responsible for modifying tasks, equipment, or the work station, depending on the decisions made during the planning of the RTW solution. The supervisor then has to meet with the worker upon his return to inform him of possible changes and check whether he feels able to perform the assigned tasks (capacity, pace). Next, the supervisor has to ensure that the worker and work team respect the worker's functional limitations. These results correspond to what emerged from the literature review. The actors interviewed pointed out, however, that it is easier for the supervisor to assume these responsibilities if given leeway in implementing the RTW solution (e.g. the supervisor may allow the worker to take breaks as needed).

Supporting the worker

Compared to the literature review, the participants placed greater emphasis on the importance of the supervisor supporting the worker during the RTW process. Some supervisors thus considered it essential to meet with the worker either as soon as he returns in order to update him on his tasks and possible changes within the work team, or after he has returned to maintain communication at all times and check whether he is able to perform the assigned tasks or is having problems, and then to solve them together. However, not all of them do this systematically due to lack of time or because they do not regard it as their responsibility.

The supervisor is seen as a resource person when difficulties arise, particularly conflicts between the worker and other members of the work team. The supervisors interviewed associated these conflicts with inappropriate attitudes or prejudices toward the worker. The participants mentioned the importance of informing the other actors – including the members of the work team – of the RTW to make them aware of the worker's situation.

Doing follow-up in the work teams, because sometimes the team can have a negative view, you know, of somebody who comes back, but not in full gear, or not, you know, on his regular schedule... So what I always do is I say to the teams, uhhh, for example, 'So-and-so is coming back, and we have to respect these tasks for X number of weeks, and he will be here from this time to that time.' So sometimes this prevents little conflicts from happening, because at the beginning, we... we used to see conflicts, and then after that we adjusted to the situation. (Supervisor, Organization C)

Doing follow-up of the RTW solution

Also in line with the results of the literature review, the actors interviewed mentioned that doing follow-up of the RTW was one of the supervisor's responsibilities. The worker's participation in this task was underscored as a means of identifying and solving problems that might arise. It was mentioned that a supervisor who has good listening skills and understands the worker's difficulties will have an easier time enlisting the latter's participation. However, it was also pointed out that supervisors lack time to carry out the actions associated with their responsibilities regarding follow-up, whether it be administrative follow-up of the RTW file, or ongoing follow-up, in the workplace, of the implementation of the RTW solution.

So since then, I always forewarn the employee; for sure, it's not always easy to be on the case of the departments, because, after all, I've got quite a few. I have more than 100 employees, so for sure, I say to the employee, 'If you've got any problems, questions or things that aren't going well during your return,' I mean, I always tell them to come back to see me, and all that. (Supervisor, Organization C)

Collaborating

According to the actors interviewed, collaboration between the supervisor and the other actors in the RTW process, for the purpose of developing a relationship of trust or collaboration with the person responsible for the RTW, appears essential to a successful return. Actions that were mentioned by both supervisors and workers pertained to the content (e.g. transfer of pertinent information) of the supervisors' interactions with the returning worker (e.g. collaborating with the worker when choosing solutions to the problems) or with the HR advisor.

Well, it's a question of determining the employee's work schedule and tasks, first, with the Health Department ... (Supervisor, Organization C)

The fact of keeping each other informed and all that; they [the workers] don't see us like the employer, who obliges them to come to work. You know, a sort of collaboration takes place. So there's a relationship of trust, and you could say it makes the rest of the process easier. (Supervisor, Organization A)

Formalizing the RTW process

The actors interviewed saw supervisors' responsibilities in the formalization of the RTW process as more limited than was documented in the literature review. According to them, supervisors

have to know the organization's RTW policies and procedure, but they did not mention their participation in the development of the procedure.

5.2.4 Favourable and unfavourable conditions

In addition to supervisors' responsibilities in the RTW process, favourable and unfavourable conditions were reported as having an effect on their ability to take the actions associated with these responsibilities. These results are detailed, by organization, in Table B6 in Appendix B. While the conditions cited by the participants during the second part of the study added little new information to that obtained in the literature review, they nonetheless confirm what had been evidenced earlier.

Two main types of conditions came to light, also in line with the results of the literature review. First, the participants mentioned conditions related to organization. These included the fact that the prioritization of actions related to production objectives over actions related to the RTW process is an unfavourable condition. In this context, supervisors may neglect their RTW responsibilities, which they feel earn little recognition. On the contrary, the participants mentioned the importance of a culture favourable to the RTW process within the organization, including, for example, structured RTW programs with clear and specific procedures and concrete actions promoting collaboration between supervisors and the other actors, availability of resources for supervisors, sufficient leeway for putting accommodations in place, and the offering of training related to RTW responsibilities.

A second type of condition was reported that focused on the interpersonal relations among the various actors in the RTW process. The supervisors underscored the importance of them having good relations with the worker during several activities in the RTW process, such as maintaining contact with the worker during his absence, supporting the worker, and doing follow-up.

There's also the fact of keeping each other informed and all that. They don't see us like the employer, who obliges them to come to work. You know, there's a sort of cooperation that happens. So there's a relationship of trust, and you could say that this makes the rest of the process easier. (Supervisor, Organization A)

The participants also underscored the impact of the atmosphere within the work team on the RTW process, particularly in cases where injured workers return to a job that has been modified to accommodate them. Lastly, they mentioned that relations between supervisors and the other actors in the RTW process have an impact on their collaboration in the process. They pointed out that interpersonal relations depend on the openmindedness, listening skills, and engagement of each of the actors throughout the RTW process.

5.2.5 Synthesis (part 2)

This second part of the research grounded this study in the Québec organizational context by soliciting participants from Québec-based organizations. Overall, the Québec context does not appear very different from the international context because the concrete actions mentioned by the actors interviewed related to the role and responsibilities of supervisors in the RTW (part 2) corresponded to the supervisors' actions identified in the literature review in relation to essential activities (part 1). Nonetheless, the secondary data analysis highlighted the application of these actions in the Québec context. While the supervisors interviewed stressed the importance of the supervisor's actions during certain essential activities in the RTW process (supporting the worker throughout), they minimized his responsibilities in other essential activities (taking part in formalizing RTW procedures and planning).

Similarly, it appears difficult to study the supervisor's role in the RTW process in isolation because it forms an integral part of several interconnected roles. In fact, the actors interviewed regularly related the responsibilities associated, in the literature, with the supervisor's role in the RTW to roles more traditionally assigned to the supervisor within the organization (they related workforce planning during the worker's absence to the supervisor's role in production or in evaluating the work situation to his role in prevention).

As in the literature review, the results obtained in this part highlighted two types of conditions influencing the effectiveness of the supervisor's actions associated with his role in the RTW process: conditions related to the organization (a culture favourable to RTW) and those related to interpersonal relations (relation of trust between supervisor and worker).

Table 3. Responsibilities of Supervisors, Concrete Actions, and Favourable Conditions Mentioned by the Actors in Their Respective Organizations

Responsibility	Action/interaction	Favourable conditions
Knowing the RTW procedure	Complete the TA form (S). Know the RTW procedure to be followed after a work-related accident (Other)	Structured RTW program with clear procedures regarding collaboration among the actors (S, Other) Training for supervisors (Other)
Communicating with the W during his absence	Contact the W, find out how he is doing, and check how he envisages the RTW (friendly, non-harassing tone) (S)	Relationship of trust between S and W (Other) Show empathy (Other)
Planning the RTW solution	Propose and select the TA tasks in light of the W's FL (S, Other) Identify the factors favourable and unfavourable to the RTW and envisage solutions (Other) Assess whether the W needs training (S) Give the work team news about the absent W (S) Verify the feasibility and impact of the accommodations on the other members of the work team (S).	Tasks that are meaningful for the W and value-added for the work team (S) Team meeting – information on the W's FLs during the RTW (S, Other) S's openmindedness to envisaging changes (tasks, equipment, rearranging the work station) (S, Other) W's willingness to return to work (S)
Overseeing and supporting the W during his return and throughout his RTW process	Modify the tasks, equipment, or work station as needed (S) Meet with the W to check how his first day back at work went (S) Check whether the W feels able to perform the tasks assigned during the RTW (capacity, pace) (S) Make sure that the W and work team respect the W's FLs (S) Support the W if conflicts arise with other members of the work team (S)	Meeting with the W to provide update on organizational changes and tasks to be performed (Other) Having leeway in implementing modifications and RTW solutions (e.g. allowing the W to take breaks when needed) (S) (Other)

Responsibility	Action/interaction	Favourable conditions
Collaborating and development a relationship of trust with the W	Collaborate with the W in choosing solutions for the problems (S, Other)	Communication focused on problem solving by the S and W (Other, W) Positive attitude on the part of the W (S, Other) W's engagement in his RTW (S, Other) S's ability to listen and understand the W's situation (W, Other)
Collaborating with the person responsible for the RTW	Transfer the relevant information to the person responsible for OHS or to the HR advisor (S, Other)	S's and W's openness to solving problems (Other)
Following up with the W and work team after the RTW	Do regular follow-up with the W on TA or back at his job, to solve any problems he encounters W (S, W) Do monthly follow-up of RTW cases with the HR advisor or person responsible for OHS (S)	Personalized follow-up of the W who is back at work (Other) S's ability to listen and understand the problems the W encounters (S, W)

Legend: TA – temporary assignment, FL – functional limitation, S – supervisor, W – worker, RTW – return to work, HR – Human Resources

5.3 Part 3: Consultation on the Proposed Courses of Action for Supervisors

This section presents the main findings that led to the final wording of the proposed courses of action (objective 3). This is followed by the results of the consultation regarding their pertinence, feasibility, and applicability. Next, it presents the factors influencing the applicability of the courses of action, by the characteristics of the different types of organizations in Québec (objective 4).

5.3.1 Development of the courses of action (objective3)

While the concrete actions reported by the actors interviewed about the role and responsibilities of supervisors in RTW (part 2) largely corresponded to those identified in the literature review in relation to essential activities (part 1), some differences nonetheless emerged. Thus, even though the essential activities and actions identified in the literature review served as the basis for developing and wording the proposed courses of action for supervisors, the latter were modified to reflect the results of the secondary analysis of data specific to carrying them out in the Québec context.

The research team came up with a total of eight courses of action, broken down into 23 specific actions (see Table C1 in Appendix C), which they included in the questionnaire developed for individual consultations. The questionnaire was entitled *Courses of Action for Supervisors during the Process Aimed at Achieving the Sustainable Return to Work of Workers following a Work-Related MSD* (see Table C2 in Appendix C). When developing these courses of action and their specific actions, the decision-making factors involved in modifying the essential activities identified in the literature review focused on the following criteria: overlap between the different items, repetition in the statements, applicability of the actions in the Québec context, and reflection of the language commonly used in organizations. Table 4 summarizes the decision-making factors involved in developing the courses of action and specific actions.

Table 4. Decision-Making Factors Involved in Developing the Courses of Action and Specific Actions

Courses of action and specific actions	Decision-making factors involved
1) Formalize the S's role and responsibilities in procedures aimed at achieving sustainable RTW	
<ul style="list-style-type: none"> • Differentiate between the S's responsibilities and those of other actors participating in the process. • Participate in developing RTW policies and procedures, based on one's experience. • Differentiate between accident-prevention actions and RTW actions. • Clarify the S's role and responsibilities in the process. 	<p>Incorporate the concept of role and responsibilities that appeared most comfortable to the Ss.</p> <p>Specify the nature of the specific actions. Differentiate the S's various roles and responsibilities from those of the other actors.</p>
2) Communicate with the absent W to maintain contact	
<ul style="list-style-type: none"> • Contact the W as soon as possible after he goes on sick leave to: <ul style="list-style-type: none"> - reassure him about the contractual relationship - find out his perceptions of his RTW • Come to an agreement with HR about a mechanism for transmitting to the S any relevant information about the W's needs. 	<p>Reword the course of action to avoid repetition of the notion of contact.</p> <p>Incorporate the notions of early action and communication (reported by both the Ss and the literature as favourable to the RTW).</p>
3) Collaborate with the other actors involved in the process aimed at facilitating the W's sustainable RTW process	
<ul style="list-style-type: none"> • Collaborate with the W during the planning and implementation of the RTW solution. • Collaborate with members of the work team during the planning and implementation of the RTW solution • Collaborate with the actors responsible for managing the W's administrative files and forms (e.g. the person coordinating the RTW). 	<p>Replace the concept of coordination by that of collaboration, which is closer to the language used by the actors involved.</p> <p>Take into account the different interactions between the S and the other actors. Include actions related to the essential activity of <i>Collaborating within the work team and supporting the W</i>, as the two overlap.</p>
4) Support the W during the process aimed at facilitating his sustainable RTW	
<ul style="list-style-type: none"> • Support the W regarding the various accommodation measures. • Support the W if conflicts arise with other members of the work team. 	<p>Replace the concept of communicating by that of supporting, which is broader.</p> <p>Take into account the purpose of providing support (accommodation measures) and the potential conflicts that can arise within the team.</p>
5) Plan the process aimed at facilitating the W's sustainable return to work	
<ul style="list-style-type: none"> • Plan the RTW with the other actors concerned (e.g. meet with the work team, with the HR advisor or the RTW administrator/counsellor?). • Develop a action plan and discuss ((it??)) with the W to identify options facilitating the RTW. • Plan the workforce during the W's absence (e.g. distribution of tasks, schedule). 	<p>Reword the <i>Evaluating the W and his work situation</i> course of action with regard to planning, because the corresponding essential activity contains elements of a different nature (evaluating, planning, implementing). The actions not related to planning were incorporated into the <i>Carrying out the RTW</i></p>

Courses of action and specific actions	Decision-making factors involved
<ul style="list-style-type: none"> Plan the W's RTW according to his needs (e.g. the welcoming back and integration process, reviewing safety measures, information on new tools or procedures). 	<p>course of action.</p> <p>Take into account the facts that the S collaborates with other actors in the RTW process, is responsible for anticipating the replacement workforce and the absent W's production, and has to factor the W's needs into the RTW process.</p>
6) Carry out the RTW	
<ul style="list-style-type: none"> Meet with the W when he returns, to summarize the tasks expected of him according to his capacities and resources, and to reassure the W of the S's support and that of the work team. Make the necessary accommodations in collaboration with the actors concerned. Make sure that the W and the other members of the team respect the W's FLs. 	<p>Include the responsibilities mentioned by the Ss.</p> <p>Take into account the S's actions to ensure that the W and his co-workers respect the W's FLs and to become actively involved in implementing accommodations in collaboration with other actors.</p>
7) Do regular follow-up of the work activities and of their distribution among the members of the work team	
<ul style="list-style-type: none"> Meet with the W during his RTW (e.g. information and follow-up meeting about his capacities and satisfaction with the work). Inform the work team of the RTW plan before the W's return. Resolve the problems that can arise during the RTW process in collaboration with the persons concerned. 	<p>Incorporate the S's responsibilities regarding the distribution of work among members of the work team according to the W's situation more explicitly into the course of action.</p> <p>Take into account the S's interactions with the other actors and the collaboration needed to solve problems throughout the RTW process.</p>
8) Train the S on the actions expected of him during the process aimed at facilitating the W's sustainable RTW	
<ul style="list-style-type: none"> Acquire the skills needed to conduct ergonomic evaluations of work situations, and plan and solve problems related to implementing RTW solutions (e.g. temporary assignments, accommodations, adjustments). Identify Ss' training needs with regard to the actions expected of them (such as communicating). 	<p>Take into account the problems and strategies reported as courses of action for organizations.</p> <p>Take training objectives and needs into account.</p>

Legend: TA – temporary assignment, FL – functional limitation, S – supervisor, W – worker, RTW – return to work, HR – Human Resources

5.3.2 Consultation

5.3.2.1 Description of the participants

A total of 37 potential participants who met the inclusion criteria were identified. Of these, 19 agreed to participate in the individual questionnaire-based consultation. The 18 refusals were largely attributable to lack of time. Of the 19 participants (four supervisors and 15 other actors) in the individual consultations, 11 (one supervisor and 10 other actors) also participated in one of the two focus groups. Due to time and travel constraints, three other participants (two supervisors and one HR advisor) were met individually in their workplaces. The recruitment and data collection process for this part is shown in Figure 3.

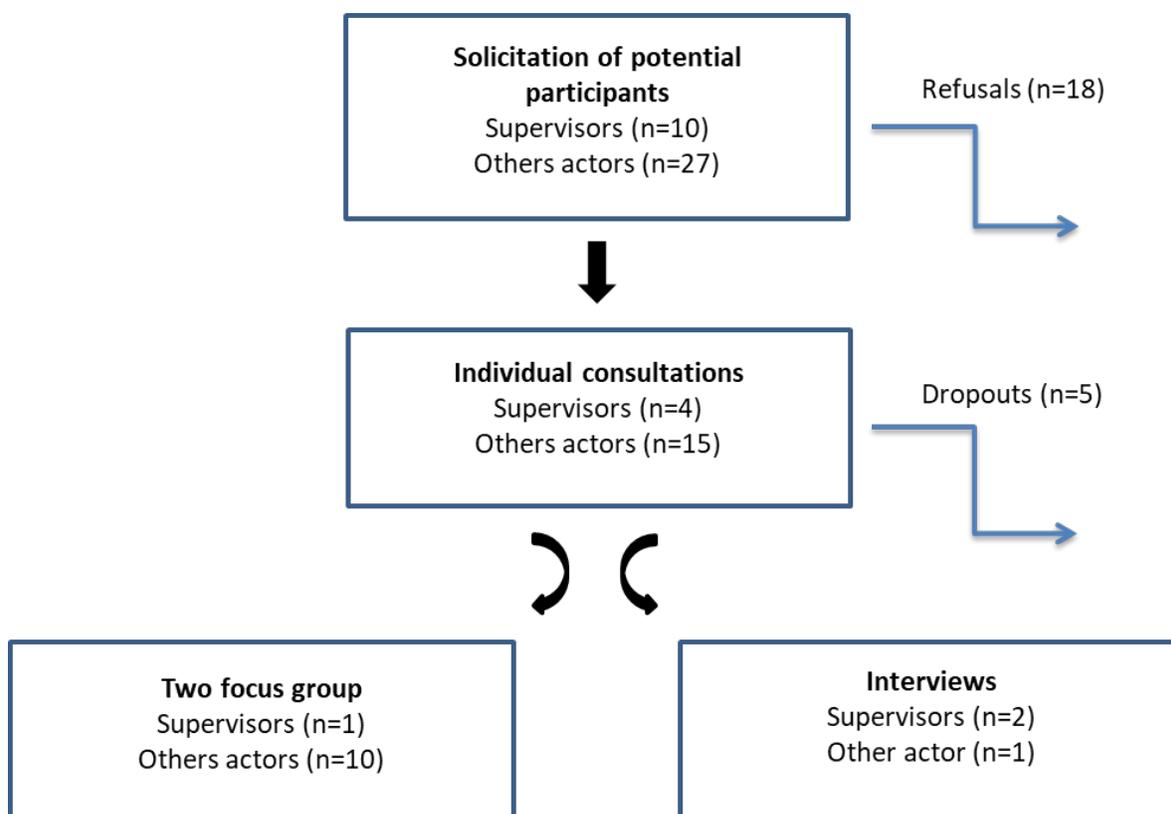


Figure 3. Participant Recruitment and Data Collection Process.

The participants included both men and women who held either a supervisor position or another position involving responsibilities in the RTW process, falling under their organization’s Human Resources Department or Occupational Health and Safety Department. Their job tenure in these positions ranged from two to 25 years. The participants’ characteristics are presented in Table C3 in Appendix C.

The participants came from organizations operating in various industry sectors (health and social services, manufacturing, transportation, construction, entertainment, and retail) in Québec. The diversity of the organizations allowed us to document RTW experiences in various

contexts: public and private sectors; large, medium-sized, and small organizations; unionized and non-unionized organizations; and organizations in metropolitan areas, central regions, and remote regions. The characteristics of the organizations are presented in Table C4 in Appendix C.

5.3.2.2 Individual consultation

Regarding the questions about the eight courses of action as a whole, all the participants considered them to be feasible and applicable. Most participants confirmed that they were pertinent and clearly worded. Regarding the courses of action taken individually, most of the time the participants reported that they were clearly worded, pertinent, and feasible (Table 5). By contrast, the results regarding the “comprehensive” aspect were more mitigated.

Table 5. Answers from the Individual Consultations, by Course of Action

Course of action	Pertinent (YES)	Feasible (YES)	Clearly worded (YES)	Comprehensive (YES)
1 Formalize	19/19	18/19	15/19	13/19
2 Contact	19/19	18/19	18/19	9/19
3 Collaborate	19/19	19/19	16/19	12/19
4 Support	19/19	19/19	12/19	10/19
5 Plan RTW	19/19	18/19	19/19	14/19
6 Carry out RTW	19/19	18/19	17/19	14/19
7 Follow up	19/19	17/19	19/19	12/19
8 Train	19/19	16/19	19/19	11/19

The comments obtained on the courses of action (approximately five comments per respondent) provided clarifications regarding their applicability in the different contexts of the participants’ organizations. These clarifications were highlighted and thoroughly explored, based on the results of the focus groups and interviews presented in the following sub-section.

5.3.2.3 Consultation through focus groups and interviews

The analyses brought to light the problems faced by supervisors for each course of action, but also the strategies they used to overcome them and the conditions influencing their application. They also shed light on the various contextual factors that would influence the application of the proposed courses of action in organizations. Table 6 summarizes the details concerning the feasibility of the courses of action in the participants’ different organizational contexts.

5.3.2.4 Clarifications regarding the courses of action and their feasibility in organizations

5.3.2.4.1 Course of action 1: Formalize the supervisor’s role and responsibilities in the context of the procedures aimed at achieving sustainable RTW

For the participants, the formalization of the supervisor’s role and responsibilities makes it possible to standardize the RTW process within the organization. In line with the results of

part 2, it appears that the formalization process is the responsibility of a higher level of decision-making than that of the supervisor. While the actors interviewed during part 2 did not mention supervisors' responsibilities in formalizing the RTW process, the participants in part 3 were more specific. For them, the difficulty of having supervisors participate in the development of RTW policies and procedures pertained to their lack of knowledge about the subject. The participants in part 3 emphasized mainly the need to equip and support supervisors in their RTW-related responsibilities. In addition, they reported the fact that supervisors concentrate above all on their role in production and devote only a limited amount of time to their role in the RTW process.

The production supervisor has a prerogative regarding production. During his 40 hours a week, he expects to do production, and to be involved in production issues for around 40 hours a week... He might take about 10 to 15% of this time, and somewhere in there, he'll do prevention, then he'll take care of returns to work, if there are any. (Coordinator of the OHS department, second focus group)

It was mentioned that it would be a good idea to familiarize all the actors with the supervisors' responsibilities. This would facilitate collaboration between the other actors and the supervisor at the opportune times.

5.3.2.4.2 Course of action 2: Communicate with the absent worker to maintain contact

Establishing early contact with the worker at the beginning of his sick leave is necessary to reassure him about his disability benefits and contractual relationship and ensure a context favourable to the RTW. However, this was not systematically seen as the supervisor's responsibility. Some participants saw supervisors as lacking the skills or time to establish contact with the absent worker:

[The supervisor] doesn't have the expertise. He won't have a relationship of trust with the employee either. So it would be... And I don't think they have the time either. (Health and safety representative, first focus group)

By contrast, a supervisor in another organization thought he was able to assume this responsibility:

I think that would be something worth looking at, to ask the supervisor to stay in touch with his worker. I think that in our company, the worker and supervisor have a good trusting relationship. (Supervisor, first focus group)

The literature review already pointed to the diverging opinions amongst authors as to which actor in the organization should be responsible for contacting the absent worker. The data collected during part 3 pinpointed certain factors that could explain these divergences. Whether or not the supervisor is assigned the responsibility of contacting the absent worker depends on, among other things, the causes of the sick leave, the supervisor's interpersonal skills, and his relationship with the worker. In an organization where sick leaves are contested on a regular basis, communication may be more difficult with the absent worker, who may be reticent about communicating with his supervisor. Some participants suggested including the notion of contact with the absent worker in the RTW procedures so that it is not seen as questioning the sick

leave or as harassment. Also, the participants mentioned the need for the supervisor to be trained on the subjects to be raised when communicating with the worker.

I think it would be good, provided there is the right training, to learn how to do it, how to raise points, which questions to ask and which not, to equip the supervisor to make these contacts. (Supervisor, first focus group)

5.3.2.4.3 Course of action 3: Collaborate with the other actors involved in the process aimed at the worker's sustainable return to work

Collaboration among the various actors is an integral part of the RTW process. It provides an overview of the situation in which the RTW is taking place. It was also mentioned that the need to collaborate is more important in more complex RTW processes. However, effective collaboration means that the actors need to be able to free up some time, plan times for meetings, and do training on communication.

However, participants said that it was difficult to see collaboration as a course of action since it is also integrated into other courses of action, such as communicating with the absent worker, or planning, carrying out, and following up on the RTW.

Personally, I'd say I had trouble with this course of action, [...] what's its added value in this course of action? [...] Maybe integrate it into other courses of action instead of making it a separate one? (RTW administrator/counsellor, second focus group)

5.3.2.4.4 Course of action 4: Support the worker during the process aimed at his sustainable RTW

The participants in part 3 saw the supervisor as an important resource person for ensuring proper application of the RTW plan in cases involving a return to a modified job.

Personally, I see it more like supporting: it's like being a resource person during the return, to make sure things happen as agreed when everyone sat around the table. (Prevention/health and safety counsellor, second focus group)

The participants considered that, in order for supervisors to be able to play this role as a resource person, they must be supported by other actors in the organization to help them, for example, better prepare for meetings with the worker and improve communications with the work team. Accommodations were seen as a potential source of conflict between the worker and members of the work team. Participants specified that conflicts could arise due to the increased workloads placed on co-workers to keep up with production objectives and to the fact that accommodations for the worker could limit job rotation and thus deprive other members of the work team from lighter tasks. As was the case in part 2, it was mentioned that the sharing of information on the worker's situation could give the work team an overview of the situation and prevent them from seeing accommodations as a privilege.

5.3.2.4.5 Course of action 5: Plan the process aimed at the worker's sustainable RTW

The worker's return to work is planned by those responsible for RTW within the organization, in collaboration with the supervisor. The tasks assigned to the worker upon his return are determined on a case-by-case basis, according to the worker's functional limitations and what adjustments are feasible. The worker should be consulted to validate the solution retained and find out his apprehensions about the RTW. However, it was pointed out that, when there is disagreement, it is sometimes difficult to make an informed choice between the physician's instructions and the worker's personal preferences. The participants added that, as soon as RTW planning begins, the procedures for following up on the worker should be discussed in order to create a context conducive to the worker staying at work.

5.3.2.4.6 Course of action 6: Carry out the RTW

The day of the actual return to work appears to be an important moment in the process. The worker is returning from a more or less lengthy absence and may have certain worries, particularly when functional limitations are involved. The participants saw the supervisor's responsibility as that of reassuring the worker by explicitly acknowledging his limitations and indicating that the production objectives have been adjusted accordingly. Regarding the supervisor's responsibility for ensuring that the functional limitations are respected, the respondents specified that the worker also has a role to play in his reintegration into the work team and the gradual resumption of his work tasks. However, they also pointed out that if the worker's functional limitations go against his usual ways of working, it may be difficult to respect them. Also, the worker may find it hard to refuse a co-worker's or supervisor's request, even if it contravenes his limitations.

5.3.2.4.7 Course of action 7: Do regular follow-up of the work activities and their distribution among the members of the work team

Regarding the meeting between the supervisor and worker to check how the first day went, the main objectives were clarified. They are to validate that the accommodation and support measures chosen during RTW planning to facilitate the worker's rehabilitation have been properly implemented and then, to ensure that the tasks assigned to the worker for the RTW are not likely to cause a deterioration in his health.

The first few days are so crucial in terms of relapses. You know, that's when you... it's not three weeks later, but often in the first few days that you can see, so when we talk about meeting with the worker when he returns, I'd see [him] on his very first day. After his first day, you know ...! (Nurse, second focus group)

According to the participants, at this first follow-up meeting, the supervisor should plan for the next few meetings. It was mentioned that, from a legal standpoint, follow-up must continue until the injury has been consolidated. However, it was also suggested that the meetings between the supervisor and worker should be increasingly spaced out as the worker moves closer to returning to his regular work. Differences in practices from one organization to the other following injury consolidation were evidenced during the focus groups. Some participants reported that the last follow-up meeting should be held between two weeks and one month after injury consolidation to ensure that optimal conditions for sustainability at work are still in place.

Other participants suggested stopping specific follow-up with the worker and resuming the usual support offered in the context of the supervisor/worker relationship.

5.3.2.4.8 Course of action 8: Train the supervisor on the actions expected of him during the process aimed at the worker's sustainable RTW

The participants in part 3 of the study considered this course of action pertinent, but found the corresponding specific actions too complex. They mentioned that supervisors have neither the knowledge nor the skills needed to perform ergonomic assessments of work situations. It is not their role. They stated that training sessions on this subject should simply equip supervisors to identify risky situations in order to refer them to other actors with specific training backgrounds. According to the participants, supervisors already receive a large amount of training on various aspects, and it would be difficult to add specific training on the RTW. They added that regardless of the training provided, supervisors cannot be turned into RTW specialists. They nonetheless considered that providing supervisors with training that fits with their role in the RTW process helps ensure that they have the skills needed to assume their responsibilities.

What I think is that, regardless of the organization, if we agree that a supervisor has X, Y or Z role, you have to make sure that he is comfortable with these roles and has the appropriate training to be able to carry out what has been defined as his responsibilities. (Prevention/health and safety counsellor, second focus group)

As a complement to training, the respondents stressed the importance of other actors in the organization supporting the supervisors and of designing tools to facilitate the task of carrying out RTW-related responsibilities.

Table 6. Feasibility of the Actions Included in the Courses of Action

#	Course of action	Details on feasibility aspects of the courses of action
1	Formalize the S's role and responsibilities in the context of the procedures aimed at achieving S-RTW. <i>Not the S's responsibility</i>	Helps standardize the RTW process within the organization.
		Informs all actors of the S's responsibilities.
		S lacks knowledge of RTW, as well as the time to participate in developing procedures.
2	Communicate with the absent W to maintain contact. <i>Responsibility not systematically associated with the S.</i>	Including contact with the absent W in RTW procedures facilitates the S's involvement. Communication with the W during his absence is harder in organizations where sick leaves are contested on a regular basis.
3	Collaborate with the other actors involved in the process aimed at the worker's S-RTW. <i>Difficult to consider this as a course of action since collaboration crosscuts the entire RTW process (communication with the absent W, planning, follow-up).</i>	Greater need for collaboration in complex RTW cases.
		Free up the various actors and plan times for the meetings. Time constraints for the S.
4	Support the W during the process aimed at his S-RTW. <i>S is a resource person to ensure proper application of the RTW plan.</i>	Accommodations can be a source of conflict. S must be supported by the organization and the other actors. Sharing information about the W's FLs with the team members can help.
5	Plan the process aimed at the W's S-RTW. <i>Responsibilities associated with other actors in the organization (HR, coordinator), in collaboration with the S.</i>	The tasks assigned to the W must be planned in light of his FLs and what adjustments to the job are feasible.
		Meaningful tasks should be prioritized during the TA. S should consult the W to validate the solution retained and find out his apprehensions about the RTW.
		S should discuss follow-up procedures with the W when planning the RTW.
6	Carry out the RTW. <i>S reassures the W, acknowledges his FLs, and adjusts production objectives accordingly.</i>	Importance of the moment when the W returns: S presents the possible accommodations and checks with the W that they fit with his FLs. W may have difficulty respecting the FLs: - when they run counter to his work habits; - when he has a hard time refusing a request from a co-worker or the S.

#	Course of action	Details on feasibility aspects of the courses of action
7	Do regular follow-up of the work activities and their distribution among the members of the work team.	First follow-up meeting: scheduled shortly after the RTW (check that the measures decided on during the planning phase have been properly implemented).
		Last follow-up meeting (2 options): <ul style="list-style-type: none"> - 2 to 4 weeks after the date of consolidation; - stop doing follow-up as soon as there is consolidation and resume the same support as in the usual S/W relationship.
8	Train the S on the actions expected of him during the process aimed at the W's S-RTW. <i>Complex actions for the supervisor.</i>	S should have the knowledge and skills essential to facilitating RTW, even if he is not a specialist in the matter. S must identify risky situations and refer them to specialists. S already receives a large amount of training on various aspects and lacks time.

Legend: W – worker, S – supervisor, RTW – return to work, FL – functional limitation, S-RTW – Sustainable return to work.

5.3.2.5 Details on the applicability of the courses of action

The analyses performed brought to light certain details concerning the application of the proposed courses of action in Québec organizations. These are summarized in the Table C5 in Appendix C.

5.3.2.5.1 Size of the organization

According to the focus group participants, the size of the organization influences the RTW process. Large organizations generally have employees specialized in OHS (nurses, OHS committee representatives, RTW administrators/counsellors) who can relieve the supervisor of certain responsibilities in the RTW or lend support. The supervisor's responsibilities may thus be limited to a minimum to allow him to concentrate on production aspects. For small organizations, communications among the various actors in the RTW process are simpler, which facilitates management of any returns to work. This means that formalizing the role and responsibilities of the actors and training the supervisors are not as necessary.

We're always open, but... For now, I'd said that this is managed very well. But you know, maybe it's the context. We're a small business here and communication is excellent.

But you know, it's something that can be explained. From there, to have actual training... You know, I mean, another supervisor comes in tomorrow morning. I mean, look at us, other light tasks, temporary assignments, they're important for us. (Supervisor, interview)

Lastly, it became apparent during the focus groups and interviews that in small organizations, the supervisor establishes contact with the absent worker more naturally.

5.3.2.5.2 Location of the organization

According to the participants, it is harder to recruit supervisors for organizations not located in metropolitan areas. Many supervisors in these organizations hold their positions due to internal promotions. The participants considered that it is generally more difficult to train these supervisors in their RTW responsibilities.

We're in a [non-metropolitan] region, so often it's hard to look for, to recruit our supervisors. We take the people from the floor, promote them, and give them training, supervision. We help them in that sense. But in terms of managing a return to work, managing human resources or work relations, those sorts of things, these people have a little more difficulty. (OHS coordinator, first focus group)

However, again according to the participants, these supervisors generally have stronger ties with their workers, as they themselves once held the same jobs or previously worked with some of them. The participants reported that the supervisor can thus establish contacts with a worker more easily during a sick leave.

I've worked here for 20 years. I began, I climbed through the ranks, and I've worked with some of them, I've done the same work as them on the floor, and naturally we developed connections. [...] If one of these employees gets injured, for sure I'm going to be more comfortable communicating with him and I don't think he'll see it as harassment. (Supervisor, interview)

One participant also mentioned the particularities of organizations with isolated work sites. In his view, because the supervisors are far away from the actors responsible for RTW in these organizations, the supervisor has limited responsibilities in the process. For example, the supervisor does not participate in planning RTW solutions and simply has to implement the recommendations made by other actors.

In terms of the supervisor's responsibilities, and those of others, well, as far as they go, once they an injured employee comes back, they have to take him and keep him busy to the extent that his limitations allow...

He [the supervisor] may concentrate on his production and everything that gets in the way of that, what we do is, we eliminate it, we solve the problem for him. (Health and safety counsellor, first focus group)

5.3.2.5.3 Presence of a union

The presence of a union in the organization in fact adds another actor into the RTW process. The union presence can be seen as an advantage or an inconvenience. On the one hand, it was mentioned that union representatives' participation in the RTW process can reassure the worker, while on the other, that in cases where the worker is returning but to a different job than the one held prior to the sick leave, a union's presence in the organization adds constraints.

According to the participants, the effectiveness of the collaboration between the various parties depends on the notion of confidence, which can be influenced by the presence of contestations regarding sick leaves.

5.3.2.5.4 Nature of the work

The participants reported that the nature of the worker's job prior to his sick leave has consequences for the RTW process. In their view, for a job that requires significant teamwork, it is easier to involve the rest of the work team in the RTW process, particularly when planning the RTW or doing follow-up. However, they also mentioned that, for this type of job, when the worker returns to a job that has undergone modifications or accommodations, it has greater consequences for the work team.

You have to make sure that if you declare him surplus, that it not create extra tasks for the members [...] That's it. That the team not be [...] exhausted. You can't wear out the team because somebody comes back with limitations. So you sometimes have to plan for extra personnel. (Nurse, second focus group)

It was reported that planning the workforce during a worker's absence is easier in an organization where the workers are multi-skilled, and that such absences will have fewer repercussions on the work team than in organizations where the workers are specialized.

Here, like I was saying earlier, it's easier. We don't have specialized trades, it's really everybody does the same thing. People are trained to do all the jobs, so, what I mean is, maybe this is going to impact the overall workload, but [if] an employee leaves, everybody is trained, we can replace each other. It doesn't really cause a problem other than maybe a little slowdown in productivity, but that doesn't worry me. (Supervisor, interview)

Lastly, the unavailability of light tasks in an organization complicates the return of a worker who is on temporary assignment.

But we don't have very many light tasks, that's what the problem is. I keep coming back to [the tasks of] repacking [or] repackaging. They're pretty much the only things we have, or if somebody is lucky enough to have a little clerical training, in the office, like one case I've got right now, but that's very rare. (Supervisor, interview)

Prevalence in the organization of MSD cases involving sick leave

The prevalence of MSDs involving sick leaves within an organization has effects on supervisors' experience with RTW. It became apparent from the focus groups and interviews that the more frequent the sick leaves, the more likely it is that management will formalize the roles and responsibilities of the various actors in the RTW process and train supervisors on their particular responsibilities in the process. Similarly, the more exposure that supervisors have to the RTW process, the more skills they develop in this regard.

Even if you put in place, you have a procedure, policies, ways of doing things, then [there's] the manager, who's brand new in his role, so he needs more support... Somebody who's had to deal with three or four cases involving someone who has a problem with his upper limbs [...] they'll be a lot more flexible with ideas and listen a lot more to the employee. So experience also makes them more comfortable in their role. (RTW administrator/counsellor, second focus group)

Lastly, it was mentioned that in organizations which experience frequent MSD-related sick leaves, the possibility of anticipating jobs involving light tasks for workers on temporary assignment can facilitate the return to work.

5.3.2.5.5 Tools facilitating the RTW process

The participants mentioned a number of tools that can assist supervisors in the RTW process. For example, a form for reintegrating a worker into his pre-injury job was mentioned by the supervisor in the first focus group. It included a description of the various tasks associated with the job and identified those considered to be lighter. Before the RTW, the tasks associated with the job would be evaluated so they could be adapted to the worker's capacities. This tool would facilitate the planning and implementation of the RTW. To encourage the various actors in the organization to respect the worker's functional limitations, a document explaining the worker's functional limitations was mentioned by a health and safety counsellor in the second focus group. Also, a Human Resources advisor in the first focus group proposed giving pamphlets outlining the RTW process to absent workers at the beginning of their sick leave. In her view, these would familiarize the workers with the different steps in the process and facilitate their involvement. Offering workers a refresher training course upon their return was also proposed by one of the supervisors during the interviews; the content of this training course could be developed to cover the matters discussed in meetings held during the workers' absence. Lastly, one health and safety counsellor in the second focus group proposed providing digital access to all the RTW information and support resources available. According to this participant, this would ensure access to information and resources at all times and allow supervisors to consult the documents as needed.

5.3.3 *Synthesis (part 3)*

Generally speaking, the participants in the consultation (questionnaire, focus groups, and interviews) considered the courses of action as a whole to be pertinent, feasible, appropriately worded, and applicable in organizations in Québec. However, our analysis of the comments received for the individual courses of action indicated that some actions needed clarification. In particular, some of them were not entirely the responsibility of supervisors, as their role is to interact and collaborate with other actors to carry out the process aimed at the sustainable RTW of workers who have had an MSD.

In addition, specific clarifications regarding the feasibility and applicability of these courses of action emerged for the Québec context. Some concerned factors that influence the feasibility of the courses of action, depending on the organizational context, while others concerned factors influencing applicability, which must also be taken into account, depending on the organizations' characteristics, to ensure optimal operationalization.

6. DISCUSSION

The general objective of this study was twofold: (1) to propose possible courses of action for supervisors during the process aimed at achieving the sustainable RTW of workers who have had a work-related MSD, and (2) to verify their applicability in various organizational contexts and industry sectors in Québec. Eight courses of action and 23 specific actions were proposed for supervisors and organizations, based on the main findings derived from analyses of the literature (part 1) and of secondary data (part 2). As a whole, these courses of action were deemed pertinent and clearly worded, according to our consultations with actors from different workplaces (part 3). Their feasibility and applicability were then explored in greater depth with various organizational actors.

The integration of an ergonomic vision of the work activity of supervisors, who must also be considered workers with the organization even if they have management functions, helped produce acceptable courses of action and specific actions. The last component of the consultation allowed us, above all, to observe the major impact of favourable and unfavourable conditions and of the organizational context on the implementation of the courses of action. The participants added nuances regarding their responsibilities in the implementation of certain courses of action (formalizing, training, contacting, planning, and collaborating). These nuances aligned perfectly with what we found in the literature, namely, obstacles to the implementation of disability management practices (Williams-Whitt, Kristman, Shaw, Soklaridis and Reguly, 2016; Ketelaar *et al.*, 2017; Shaw *et al.*, 2016). Moreover, these studies called on the research community to further explore workplaces and the various organizational contexts. This study thus contributes to the more in-depth exploration of the conditions influencing the implementation of the courses of action that supervisors and organizations should take to promote and facilitate sustainable return to work.

6.1 Conditions Influencing the Implementation of the Courses of Action

The complex nature of the role and responsibilities of supervisors regarding sustainable RTW stood out as one of the conditions that can influence the implementation of the courses of action. In fact, supervisors appear to be constantly seeking a balance between aspects related to the organization's production objectives and the practical and interpersonal of implementing a RTW, particularly when accommodations (temporary or gradual adjustments to production or work schedules), help from one or more co-workers in carrying out heavy tasks, etc.) are required. Although this study focused on the roles and responsibilities of supervisors regarding sustainable RTW of workers, it also highlighted other roles and responsibilities that supervisors assume in organizations and that are related to meeting production objectives, distributing work among members of the work team, and creating a positive atmosphere within their department or service area.

Difficulties seem to arise in situations involving conflict or ambiguity in roles and responsibilities. Underlying these difficulties appears to be the fact that even if supervisors believe it is their duty to support workers during their RTW process, they must also consider production-related demands, which restricts their ability to fulfill their RTW responsibilities. They may thus feel caught between having to meet productivity quotas and having to reintegrate workers whose injuries have not been consolidated and who are on temporary assignments or returning to work

gradually. Also, they may not know to what extent they should consider these actions as part of their supervisor role or as options for collaborating with other departments and internal and external actors.

The role theory (Khan, Wolfe, Quinn and Snoek, 1964) states that the role concept makes it possible to interrelate the organizational and individual levels, while explicitly acknowledging the psychosociological processes leading to role conflicts. Katz and Khan (1966) define organizational roles as a set of activities, behaviours and expectations or demands commonly associated with a job in a given organization. Conflict can arise when there is a mismatch between the actions of the actors contributing to the RTW or when the tasks are contradictory or incompatible (Inoue *et al.*, 2010; Rugulies *et al.*, 2007). Ambiguity is present when responsibilities are vaguely defined or assigned or when instructions are imprecise (Rizzo, House and Lirtzman, 1970). The results of our study revealed the presence of role conflicts or role ambiguity. All these elements may increase supervisors' perception of being overloaded, stressed, dissatisfied, or lacking resources in the organization.

Difficulties in reconciling roles and role ambiguity can also cause supervisors problems in terms of interpersonal relations between them and the worker or between them and the worker's fellow team members. Yet taking this social dimension of the interactions between the various actors is important in work disability prevention (Lederer, Loisel, Rivard and Champagne, 2014). Moreover, some supervisors participating in our study mentioned using communication and collaboration strategies to foster good relations between the worker who has returned to work and his co-workers. Other studies have found that the worker/supervisor relationship (Wagner *et al.*, 2015; White *et al.*, 2013) and that between the worker and other members of the work team (Dunstan and MacEachen, 2014; Durand *et al.*, 2017) help maintain or reinforce cohesiveness within the organization. These relations also promote the team's acceptance during the process of promoting sustainable RTW.

Apart from role conflict and ambiguity, another important condition can also influence the implementation of the courses of action, namely, the organizational context. The margin of manoeuvre and resources given to supervisors by their organizations appear central to their ability to fulfill their responsibilities regarding sustainable RTW. This margin of manoeuvre was mentioned in our study in variety of forms: giving supervisors time to perform their RTW role and responsibilities; freeing up the various actors involved in RTW (supervisor, RTW coordinator, worker, etc.) so they can work together to solve problems; allowing them to make adjustments in production, and so on. Yet the conditions under which supervisors are called upon to perform their role and responsibilities in the RTW process are determined by creating a culture that values RTW and providing supervisors with resources. An organizational culture that offers enough leeway and resources to supervisors and that encourages creativity searches for accommodation or adjustment solutions appears to be one of the essential conditions for a successful and sustainable RTW (Williams-Whitt *et al.*, 2016).

To implement a culture conducive to a successful and sustainable RTW, certain organizational characteristics could demand a different assignment and sharing of responsibilities, different needs, and additional resources (refresher training or the participation of work specialists to propose accommodations). This study revealed characteristics (size of the organization, distance from major urban areas, unionization, type of work, incidence of injuries), as well as the need for them to be taken into consideration for purposes of adapting the courses of action or of

optimizing operationalization. The results corroborate those of other authors who stress the importance of the implementation context, key elements in the return to work, and the need for adaptation to the organizational characteristics (Costa-Black *et al.*, 2013; Gensby *et al.*, 2012).

6.2 Operational Model of the Courses of Action

An operational model of the courses of action for supervisors was proposed, based on the results of our study. The aim was to support organizations in their reflections on the formalization process, organizational policies and procedures, the role and responsibilities of supervisors, and the appropriate contextual elements to take into account when looking for solutions appropriate to their specific context (Figure 4).

In this model, the eight courses of action are taken at different levels. The courses of action involving the supervisor and workers are key, and lie at the heart of the process aimed at achieving sustainable RTW in the organization (*supporting, carrying out, and following up on the RTW*). While other courses of action also concern supervisors directly, they are not primarily their responsibility, among other things, due to the little time they can devote to the RTW and its follow-up. Two courses of action (*communicating* with the absent worker and *planning* the RTW solution) include actions for which the person responsible for coordinating the RTW ideally has the skills required to carry out the actions collaboratively, even if specific actions may be asked of supervisors in light of their knowledge of the workers and workplace. In this model, *collaborating*, which also includes the actions of communicating with the actors and transferring information to them, appears to be a crosscutting course of action concerning all actors involved in the process aimed at achieving sustainable RTW. All actors, including supervisors, thus bear responsibilities related to this course of action for the entire duration of the RTW process.

Lastly, *training* supervisors and *formalizing* their roles and responsibilities regarding sustainable RTW policies and procedures have an impact on their actions in the RTW process. Indeed, by clarifying roles and the distribution of responsibilities and by specifying the content of the actions required of each actor, as well as developing supervisors' skills, these two courses of action enable supervisors to take their rightful place in the RTW process. However, they must be related to the organizations' capacity and willingness to integrate the sustainable RTW of workers who have had MSDs into their mission. Only senior management of organizations can promote the standardization of practices, give more or fewer responsibilities to supervisors, and allocate them the necessary resources, as well as create conditions favourable to a sustainable RTW.

The way in which the eight courses of action are distributed is not, however, universal. In order for them to fit the organizational context, the actors' roles and responsibilities must be adapted to each organization's characteristics (industry sector, size, location, etc.). The distribution shown in Figure 4 is therefore indicative only, and the effect of the organizational context must be borne in mind. That said, after validation in other organizational and occupational health contexts, this model could constitute an interesting benefit for workplaces. It would offer reference points to help specify the sharing of roles and responsibilities among the actors involved in the process aimed at achieving sustainable RTW, while also factoring in the organizations' characteristics.

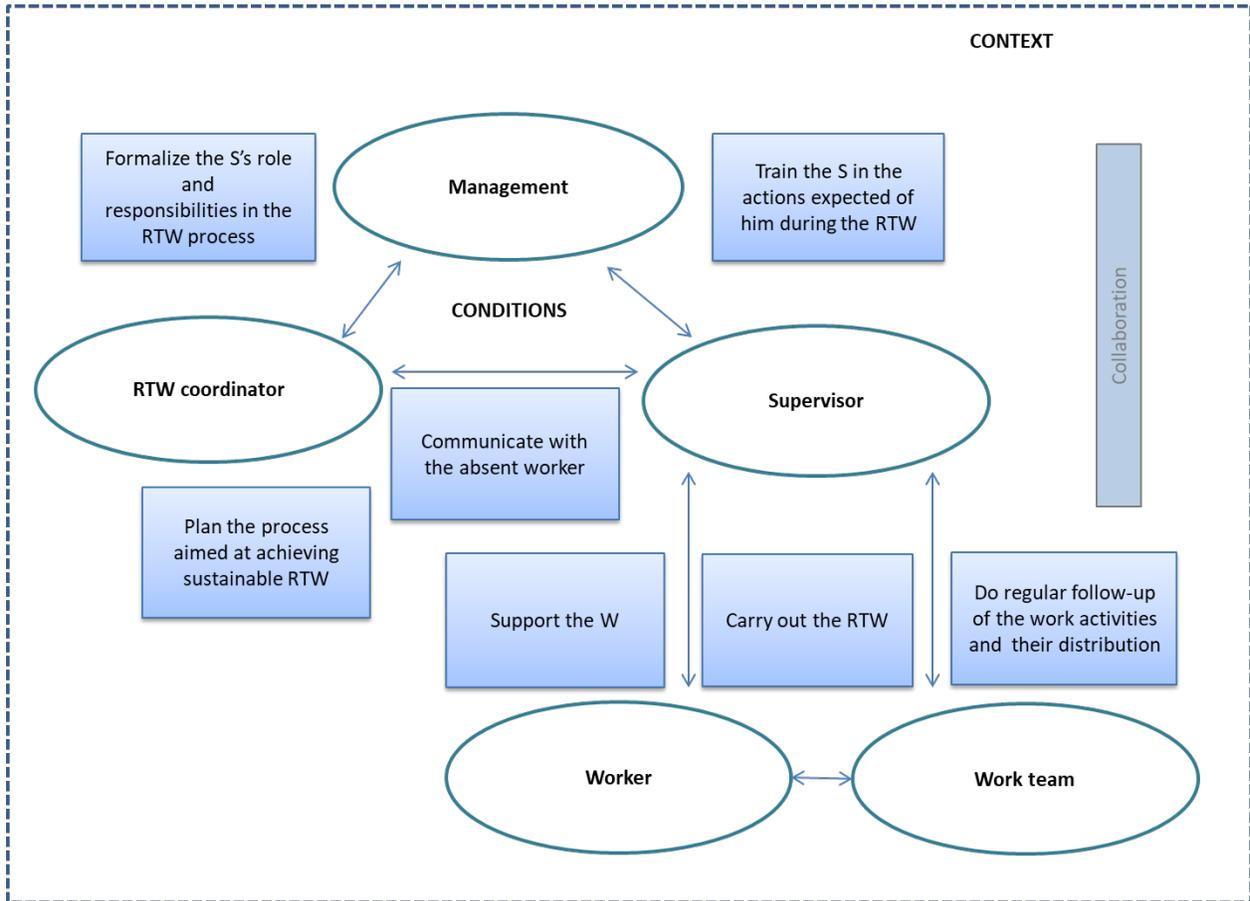


Figure 4. Operational Model of the Sharing of Roles and Responsibilities in Courses of Action Involved in the Process Aimed at Achieving the Sustainable Return to Work of Workers Following a Work-Related Musculoskeletal Disorder.

6.3 Recommendations

Two general recommendations derive from this study. First, it appears essential that organizations implement RTW policies and procedures. The clear formalization of such policies and procedures, with specific roles and responsibilities for all actors or departments involved in the RTW process, should reduce conflictual or ambiguous situations for supervisors, ensure that the courses of action align with the organizational context, and provide information on the resources available in the organization. RTW policies and procedures reflect the organizational culture and provide a reference point regarding the actions to be taken. Detailed procedures should describe the specific actions that organizations may expect of supervisors and other actors in the RTW process (Kristman *et al.*, 2017; McGuire *et al.*, 2017). However, it is also essential to consider supervisors' capacity to perform their role and responsibilities effectively, and possibly to improve their skills.

Second, training RTW actors in the actions expected of them and the favourable attitudes they should adopt in their interactions with workers constitutes a complementary action for a successful and sustainable RTW. The results of our study highlight the need for training, taking into account the supervisor's constraints. Analysis of these constraints could be facilitated by analyzing the work activity in order to provide supervisors with better guidance when they are planning and following up on the implementation of the RTW solutions. (Braathen *et al.*, 2014; Costa-Black *et al.*, 2013). Developing tools for identifying appropriate accommodations and encouraging participation in suitable training courses on various aspects of the RTW (identifying and solving RTW problems and ways of approaching workers who have sustained a work-related injury) appear to be organizational strategies that allow supervisors to accumulate RTW experiences.

However, the implementation of these recommendations depends largely on the organizational context and characteristics (e.g. size of the organization). For example, in small organizations, other ways of training supervisors could be envisaged to make them operational in the broader context (through laws, forums for inter-organization dialogue, etc.). In fact, the role of supervisors in the RTW is not necessarily understood in the same way depending on the organizational culture and trade-specific cultures. Moreover, the proposed operational model (see Figure 4) could help to specify, according to the realities of each organization, the responsibilities of the various actors in the essential RTW activities, as well as the actions and interactions expected of each actor, depending on the organization's culture and characteristics.

6.4 Strengths and Limitations

In conducting this study, the research team took into account four of the scientific criteria in qualitative research: credibility, reliability, internal consistency, and transferability (Laperrière, 1997; Lincoln and Guba, 1985; Lincoln, 1995). One of the main strengths of the study was its qualitative research design, which included both the triangulation of data from several sources (international literature, supervisors, and workers) and perspectives (researchers, employers, supervisors, workers, etc.). Through its integrative approach and systematic search of a variety of scientific and empirical literature, the review of the literature provided an overview of the knowledge on supervisors' involvement in the RTW process (scientific knowledge). The secondary analysis of the interviews and consultations (individual and focus groups) further enhanced this knowledge by adding various experiences in a variety of workplaces (empirical

knowledge). In addition, the diverse disciplinary backgrounds of the research team (ergonomics, psychology, and management science) was an advantage during the data analysis and interpretation phases as it made it possible to provide detailed descriptions of the contexts and participants in the study, comparing the observations and interpretations of the data, and verifying intercoder discrepancies in coding.

A few limitations must be mentioned. They include the exploratory nature of this study, the inherent complexity of combining various methodologies (Whittemore and Knafl, 2005), and the transferability to organizations and workplaces. Given the number of participants involved, particularly the small number of supervisors who took part in part 3, this study remains exploratory. Also, the applicability of these courses of action must be validated in various organizational contexts, since it has been shown that the organization's size and location, as well as the frequency of sick leaves it experiences, can have a major impact on the implementation of the courses of action.

Similarly, even if the RTW of workers who have sustained other types of injuries than MSDs bears some resemblances in terms of supervisors' actions, these courses of action would require further exploration in future studies. This applies, for example, to studies involving mental health disorders, which raise similar questions to those pertaining to MSDs. The issue of mental health should also be considered when there is comorbidity, as mental health problems can amplify or complicate MSDs, whether new or existing.

7. CONCLUSION

Based on a number of courses of action identified in the scientific literature and consultation with relevant parties, this study proposed modified courses of action for supervisors and verified their pertinence, feasibility, and applicability in the Québec context. Moreover, with its ergonomic perspective of supervisors' work activities and input from other disciplines, the study highlighted the complexity of the role and responsibilities of supervisors in organizations, and of the conditions influencing implementation and applicability that must be taken into account when formalizing clear and specific procedures in organizations.

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**APPENDIX A:
PART 1**

A.I Table A1 – Description of the Documents Reviewed

Author	Subject	Objective	Method	Perspective and Contextual Element	Population
<i>Baril et al. (2003), Canada</i>	Disability management and RTW programs	Learn more about the perspectives of the different actors	Qualitative, 2 phases: semi-structured interviews and focus groups	Workers, supervisors and managers, other actors (Québec, Ontario, Manitoba)	MSD
<i>Burton et al. (2005), United Kingdom</i>	Disability management and RTW program	1) Identify the psychosocial factors (yellow and black flags) 2) Assess the effects of a biopsychosocial program on risk factors	Quantitative, 2 phases: 1) survey; 2) controlled non-randomized trial	Workers, United Kingdom	MSD
<i>Dionne et al. (2012), USA</i>	Conditions: obstacles and facilitators in the RTW process	Study the workers' perspectives	Qualitative: focus groups	Workers, Québec, Canada	Back
<i>Durand et al. (2014), Canada</i>	Sick leave and RTW management practices	Extract recommendations regarding sick leave and RTW management practices, synthesize practices in a chronological RTW framework	Critical review of systematic reviews, guides, and reports	Description of actions, by stakeholder and by phase in the RTW process	MSD and CMD

Author	Subject	Objective	Method	Perspective and Contextual Element	Population
<i>Gensby et al. (2012), Denmark</i>	Disability management and RTW programs	Evaluate the effectiveness of disability management and work reintegration programs for employees post-injury or illness	Systematic review of quantitative studies	Effectiveness of the components	Work-related injuries or illnesses or not
<i>Gensby and Husted (2013), Denmark</i>	Disability management and RTW programs	Evaluate the effects (nature, effectiveness of the components) of disability management and RTW programs implemented by employers	Systematic review of quantitative studies	Description of the components	Work-related injuries or illnesses or not
<i>Habeck et al. (2010), USA</i>	Workforce retention strategy in disability prevention and management	Evaluate the effectiveness of employers' activities aimed at workforce retention, and preventing and managing disability	Quantitative and qualitative: focus group and survey	Employers, 39 states in the USA	Type of injury not specified, at work
<i>Holmgren and Ivanoff (2007), Sweden</i>	Employer's role and responsibility in the RTW process	Evaluate supervisors' responsibilities and the resources available to them in the RTW process	Qualitative: focus groups	Supervisors et personnel responsible for rehabilitation, Sweden	Type of injury not specified, at work
<i>Huang et al. (2006), USA</i>	Conditions: organizational reactions to occupational injuries	Propose a conceptual model explaining the influence of the employer's response on workers' RTW decisions	Quantitative: cross-sectional survey	Workers, USA	Type of injury not specified, at work

Author	Subject	Objective	Method	Perspective and Contextual Element	Population
<i>Iles et al. (2012), Australia</i>	Disability management and RTW program in the workplace	Evaluate a disability management approach in the workplace to determine whether it reduces costs and the number of compensation days of injured workers	Quantitative: pre- and post-intervention	Effectiveness Workers, supervisor (16 organizations, Australia)	MSD, at work
<i>Kristman et al. (2017) Canada</i>	Tool: predictive factors of job accommodations (<i>Job accommodation scale</i>)	Identify the organizational factors that influence the supervisor during work accommodations	Quantitative: survey	Supervisors with accommodation experiences in the workplace (19 employers, USA, Canada)	Back injury, at work
<i>MacEachen et al. (2009), Canada</i>	Recommendations: identify and solve problems	Propose a guide for identifying and solving problem RTW situations (flag structure)	Qualitative: focus groups (generate ideas and identify situations)	Researchers, knowledge transfer and communication professionals (Ontario)	Nature of the targeted injury not specified, at work
<i>MacEachen et al. (2006), Canada</i>	RTW practices in the workplace	Understand RTW dimensions and effective practices in workplaces	Systematic review of the literature	Employers, supervisors, clinicians, workers, union (Ontario)	MSD – pain

Author	Subject	Objective	Method	Perspective and Contextual Element	Population
<i>Maiwald et al. (2011), Netherlands</i>	Integrated disability prevention and management program in the workplace (PEARS)	Evaluate implementation of the PEARS program, perceptions of the causes of disability vs. the different interventions	Qualitative: semi-structured interviews, document analysis, observations	Employers, health service providers and workers, British Columbia, Canada	MSD at work
<i>Shaw et al. (2006), USA</i>	Training: optimizing the supervisor's intervention in the RTW process	Evaluate a training course for supervisors aimed at improving their attitudes toward OHS problems	Quantitative: controlled study	Supervisors, USA	MSD and associated disability, at work
<i>Shaw et al. (2003), USA</i>	Supervisor's role and responsibilities in disability prevention and management and in the RTW process	Evaluate organizational responses to occupational injuries (help in accessing health care, offer of appropriate accommodations)	Qualitative: semi-structured interviews, expert panel, and mapping	Workers, USA	Back and soft tissue injuries, at work
<i>Shaw et al. (2014), USA</i>	Tool: accommodations at work (<i>Job Accommodations Scale</i>)	Identify accommodation strategies and evaluate the psychometric properties of the tool applied to supervisors	Quantitative: survey	Supervisors 19 organizations, USA and Canada	Back, disability at work
<i>Wagner et al. (2015), Canada</i>	Recommendations: social support and quality of supervision in the workplace	Study interventions on the main modifiable social support factors and the quality of supervision	Review of systematic reviews, in collaboration with the stakeholders	Researcher/community partnership (two organizations managing workers' health benefits)	Type of injuries targeted not specified, at work

<i>Author</i>	<i>Subject</i>	<i>Objective</i>	<i>Method</i>	<i>Perspective and Contextual Element</i>	<i>Population</i>
<i>Wrapson and Mewse (2011), New Zealand</i>	Conditions: organizational reactions to occupational injuries	Explore the interactions between injured workers and their supervisors	Qualitative: semi-structured interviews	Workers	Back

Legend: MSD – musculoskeletal disorder; RTW – return to work; CMD – common mental disorder

A.II Table A2 – Supervisors’ Actions and Favourable and Unfavourable Conditions, by Essential Activity

ESSENTIAL ACTIVITY	ACTION/INTERACTION	FAVOURABLE CONDITION	UNFAVOURABLE CONDITION
1. CONTACTING THE ABSENT WORKER	<p>Make early contact with the worker after the event</p> <ul style="list-style-type: none"> • Burton <i>et al.</i> (2005) • Gensby and Husted (2013) • Holmgren and Ivanoff (2007) • Maiwald <i>et al.</i> (2011) 	<p>Relationship of trust between the supervisor and worker (keep him informed of organizational and social changes, invite him to participate in special events, etc.)</p> <ul style="list-style-type: none"> • Holmgren and Ivanoff (2007) • Shaw <i>et al.</i> (2003) 	<p>Existence of conflicts and tensions prior to the sick leave</p> <ul style="list-style-type: none"> • Holmgren and Ivanoff (2007) • Shaw <i>et al.</i> (2003) <p>Supervisor who asks the worker about when he will be returning to work</p> <ul style="list-style-type: none"> • Holmgren and Ivanoff (2007) • Shaw <i>et al.</i> (2003) • MacEachen <i>et al.</i> (2006)
2. EVALUATING THE WORKER AND HIS WORK SITUATION	<p>Select tasks for temporary assignments from a bank detailing work demands</p> <ul style="list-style-type: none"> • Baril <i>et al.</i> (2003) • Shaw <i>et al.</i> (2014) • Wrapson and Mewse (2011) <p>Provide information about the work that allows RTW facilitators and obstacles to be identified</p> <ul style="list-style-type: none"> • Dionne <i>et al.</i> (2012) <p>Identify the worker’s and co-workers’ attitudes toward the worker’s disability</p> <ul style="list-style-type: none"> • Habeck <i>et al.</i> (2010) 	<p>Involvement of the supervisor right from the start of the RTW process in the form of carrying out preventive actions (identifying risk factors) and interaction with the OHS and RTW coordination personnel</p> <ul style="list-style-type: none"> • Durand <i>et al.</i> (2014) • Maiwald <i>et al.</i> (2011) 	<p>Supervisor’s refusal or unwillingness to consider the risk factors and accommodations</p> <ul style="list-style-type: none"> • Huang <i>et al.</i> (2006) <p>Supervisor’s lack of knowledge of ergonomic principles</p> <ul style="list-style-type: none"> • Holmgren and Ivanoff (2007) • MacEachen <i>et al.</i> (2006) • Shaw <i>et al.</i> (2006) • Shaw <i>et al.</i> (2014)

ESSENTIAL ACTIVITY	ACTION/INTERACTION	FAVOURABLE CONDITION	UNFAVOURABLE CONDITION
<p>3. OFFERING, PLANNING, AND IMPLEMENTING THE RTW SOLUTION</p>	<p><i>Before the return to work</i> Propose accommodations • Durand et al. (2014) Assess the feasibility of the RTW solution • Shaw et al. (2006) Consider alternative solutions (interdepartmental transfers, work stations pre-identified for light tasks, graded tasks) • Durand et al. (2014) • MacEachen et al. (2009) Consider offering transitional opportunities on an individual basis • Shaw et al. (2003) Prepare the work team for the worker's return, inform team members of the temporary solution retained, and ask for their support in adhering to the RTW plan • MacEachen et al. (2009)</p>	<p>Decision making shared by the actors when developing and implementing the RTW solution (coordinator, supervisor, worker) • Durand et al. (2014) Availability of alternatives, accommodations and reassignments • Durand et al. (2014) • Iles et al. (2012) • Shaw et al. (2014) Supervisor's autonomy in decision making about task modifications, adapting and adjusting work stations • Durand et al. (2014) • Kristman et al. (2017) Contract engaging both worker and supervisor to adhere to the RTW plan (written and co-signed) • MacEachen et al. (2009)</p>	<p>Physician's recommendations disconnected from the supervisor's reality • MacEachen et al. (2009) Supervisor's inflexibility regarding accommodations • MacEachen et al. (2009) Humiliating tasks • MacEachen et al. (2009) Assignment of tasks putting worker at physical risk of recurrence or relapse • MacEachen et al. (2009) Returning to work too soon • MacEachen et al. (2009)</p>
<p>4. WELCOMING THE WORKER BACK, IMPLEMENTING AND ADJUSTING THE RTW SOLUTION</p>	<p><i>Immediately upon return</i> Meet with the worker to inform him of possible changes, reassure him about support from the supervisor and the work team, and review together the tasks that the worker is allowed to</p>	<p>Support from senior management and the union in providing accommodations • MacEachen et al. (2006) • Maiwald et al. (2011)</p>	<p>Unavailability of graded work or of assignments light tasks performed at the worker's own pace • Dionne et al. (2012)</p>

ESSENTIAL ACTIVITY	ACTION/INTERACTION	FAVOURABLE CONDITION	UNFAVOURABLE CONDITION
	<p>perform</p> <ul style="list-style-type: none"> • Holmgren and Ivanoff (2007) <p>Make adjustments to production objectives if necessary (with approval of his superiors)</p> <ul style="list-style-type: none"> • Baril et al. (2003) <p>Ensure that the worker and the other team members respect the worker's functional limitations</p> <ul style="list-style-type: none"> • Baril et al. (2003) • Shaw et al. (2006) • Wrapson and Mewse (2011) 	<p>Active participation of the worker, his co-workers and other actors in solving possible problems</p> <ul style="list-style-type: none"> • Huang et al. (2006) • MacEachen et al. (2009) • Shaw et al. (2003) • Shaw et al. (2014) <p>Supervisors' attentiveness to workers' needs and requests</p> <ul style="list-style-type: none"> • Habeck et al. (2010) • Huang et al. (2006) • Shaw et al. (2003) <p>Supervisors with experience in large, unionized organizations</p> <ul style="list-style-type: none"> • Kristman et al. (2017) 	<p>Supervisor's lack of initiative and flexibility in terms of looking for accommodations</p> <ul style="list-style-type: none"> • Huang et al. (2006) <p>Limited knowledge of ergonomic principles</p> <ul style="list-style-type: none"> • Baril et al. (2003) • Gensby and Husted (2013) • Holmgren and Ivanoff (2007) • Kristman et al. (2017) • MacEachen et al. (2009) • Maiwald et al. (2011) <p>Perception of increased workload among other members of the work team</p> <ul style="list-style-type: none"> • Baril et al. (2003) • MacEachen et al. (2006)
<p>5. DOING FOLLOW-UP OF THE RTW</p>	<p>Offer the worker advice and support if problems arise with other team members</p> <ul style="list-style-type: none"> • Holmgren and Ivanoff (2007) • Kristman et al. (2017) <p>Do follow-up of the RTW solution and make any necessary adjustments</p> <ul style="list-style-type: none"> • Durand et al. (2014) 	<p>Supervisor's vigilance regarding minor symptoms that could be early signs of a relapse or aggravation of the worker's condition</p> <ul style="list-style-type: none"> • Gensby and Husted (2013) 	<p>Supervisor's failure to keep his promises to accommodate the worker</p> <ul style="list-style-type: none"> • Huang et al. (2006) • MacEachen et al. (2006) • Shaw et al. (2003) • Shaw et al. (2006) • Shaw et al. (2014)

ESSENTIAL ACTIVITY	ACTION/INTERACTION	FAVOURABLE CONDITION	UNFAVOURABLE CONDITION
<p>6. COMMUNICATING WITH THE WORKER AFTER THE RTW</p>	<p>Maintain contact with the worker throughout the RTW process (before and after his return) Convey a positive message of encouragement, confidence and respect to the worker</p> <ul style="list-style-type: none"> • Durand <i>et al.</i> (2014) • Habeck <i>et al.</i> (2010) • Holmgren and Ivanoff (2007) • Huang <i>et al.</i> (2006) • MacEachen <i>et al.</i> (2009) 	<p>Workers feel respected, heard, and supported by supervisors</p> <ul style="list-style-type: none"> • Huang <i>et al.</i> (2006) • MacEachen <i>et al.</i> (2009) <p>Communication skills</p> <ul style="list-style-type: none"> • Shaw <i>et al.</i> (2003) 	<p>Poor relationship between the supervisor and worker</p> <ul style="list-style-type: none"> • Kristman <i>et al.</i> (2017) • MacEachen <i>et al.</i> (2009) • Shaw <i>et al.</i> (2006) <p>Supervisor’s perception that it is the worker’s responsibility to stay in contact with the workplace</p> <ul style="list-style-type: none"> • Wrapson and Mewse (2011)
<p>7. COLLABORATING WITH THE TEAM AND SUPPORTING THE WORKER DURING HIS RTW</p>	<p>Discuss the strategy associated with the RTW solution with the worker and the other members of the team, and enlist their assistance and cooperation</p> <ul style="list-style-type: none"> • Durand <i>et al.</i> (2014) • Habeck <i>et al.</i> (2010) • Holmgren and Ivanoff (2007) • Huang <i>et al.</i> (2006) • Shaw <i>et al.</i> (2014) 	<p>Relationship of trust between the supervisor and worker</p> <ul style="list-style-type: none"> • MacEachen <i>et al.</i> (2009) <p>Senior management offers the supervisor support when he makes accommodations (adjusts production)</p> <ul style="list-style-type: none"> • Durand <i>et al.</i> (2014) <p>Decision makers are promptly informed of problem situations that arise in the RTW</p> <ul style="list-style-type: none"> • Shaw <i>et al.</i> (2003) <p>Enlist the support and cooperation of the worker’s work team</p> <ul style="list-style-type: none"> • Baril <i>et al.</i> (2003) 	<p>Little support and leeway given to the supervisor by the employer and the union for making accommodations</p> <ul style="list-style-type: none"> • MacEachen <i>et al.</i> (2006)

ESSENTIAL ACTIVITY	ACTION/INTERACTION	FAVOURABLE CONDITION	UNFAVOURABLE CONDITION
8. COORDINATING THE ACTIONS AIMED AT FACILITATING SUSTAINABLE RETURN TO WORK	<p>Provide all relevant information about the work to the RTW coordinators or other decision makers to help them plan the RTW solution</p> <ul style="list-style-type: none"> • Holmgren and Ivanoff (2007) • Shaw et al. (2003) <p>Inform the RTW coordinator (internal or external) of any changes in the worker's condition that could lead to an aggravation or a relapse</p> <ul style="list-style-type: none"> • Durand et al. (2014) • Shaw et al. (2014) 	<p>Clear and detailed policies and procedures regarding each actor's roles and responsibilities in the RTW</p> <ul style="list-style-type: none"> • Shaw et al. (2014) <p>One person is specifically designated to coordinate the RTW process</p> <ul style="list-style-type: none"> • Durand et al. (2014) • Gensby and Husted (2013) <p>Multidisciplinary team in the workplace</p> <ul style="list-style-type: none"> • Burton et al. (2005) 	<p>Incompatibility and unrealistic nature of the physician's recommendations and the employer's position</p> <p>Difficult contact and communication with health service providers</p> <ul style="list-style-type: none"> • MacEachen et al. (2006)
9. FORMALIZING POLICIES AND PROCEDURES REGARDING SUSTAINABLE RTW	<p>Participate in the development of clear and specific procedures regarding roles and responsibilities</p> <ul style="list-style-type: none"> • Gensby and Husted (2013) • Kristman et al. (2017) <p>Adhere to and adopt organizational policies and procedures</p> <ul style="list-style-type: none"> • Huang et al. (2006) • Kristman et al. (2017) 	<p>Organizational policies based on support for workers and workforce retention</p> <ul style="list-style-type: none"> • Durand et al. (2014) <p>Organizational policies influence supervisors' attitudes</p> <ul style="list-style-type: none"> • Baril et al. (2003) • Burton et al. (2005) • Durand et al. (2014) • Gensby et al. (2012) 	<p>Ambiguity in the roles of the various actors (who does what, what is expected of each actor?)</p> <ul style="list-style-type: none"> • Holmgren and Ivanoff (2007) <p>Contradictions, conflicts between the supervisor's various responsibilities (prioritization)</p> <ul style="list-style-type: none"> • Baril et al. (2003) • Durand et al. (2014) • Huang et al. (2006)
10. ACQUIRING KNOWLEDGE, EXPERIENCE, AND SKILLS RELATED TO SUSTAINABLE RTW	<p>Participate in different training and professional development activities</p> <ul style="list-style-type: none"> - Skills: communication with workers, leadership - Attitudes: open-minded, active 	<p>Organizational culture and policy promoting the development of the RTW actors</p> <ul style="list-style-type: none"> • Huang et al. (2006) <p>Means for sharing knowledge</p>	<p>Beliefs that the worker has to be 100% recovered before returning to work</p> <ul style="list-style-type: none"> • Baril et al. (2003) <p>Lack of incentives from</p>

ESSENTIAL ACTIVITY	ACTION/INTERACTION	FAVOURABLE CONDITION	UNFAVOURABLE CONDITION
	listening, sensitive - Knowledge: risk factors, ergonomic principles for making accommodations <ul style="list-style-type: none"> • MacEachen <i>et al.</i> (2006) • Shaw <i>et al.</i> (2003) • Shaw <i>et al.</i> (2006) • Shaw <i>et al.</i> (2014) 	among the RTW actors: meetings, discussions based on specific cases, educational and training activities <ul style="list-style-type: none"> • Iles <i>et al.</i> (2012) • Shaw <i>et al.</i> (2014) 	the employer to facilitate the RTW <ul style="list-style-type: none"> • Wrapson and Mewse (2011) Assignment of blame <ul style="list-style-type: none"> • Burton <i>et al.</i> (2005) Negative beliefs about workers with occupational injuries <ul style="list-style-type: none"> • Huang <i>et al.</i> (2006) Supervisors' indifferent and hostile perceptions toward workers <ul style="list-style-type: none"> • Shaw <i>et al.</i> (2006)

APPENDIX B: PART 2

B.I Table B1 – Description of the Workers

	N = 14
Gender	
Male	4 (29.0%)
Female	10 (71.0%)
Age	
30 to 40 years	4 (29.0%)
41 to 50 years	5 (35.5%)
51 to 60 years	5 (35.5%)
Job	
Cook or cook's helper	3 (21.4%)
Patient service associate	3 (21.4%)
Nursing assistant	2 (14.3%)
Laundry worker	2 (14.3%)
Worker	2 (14.3%)
Sales representative	1 (7.1%)
Hydraulic cylinder technician	1 (7.1%)

B.II Table B2 – Description of the Key Actors

	N = 32
Gender	
Male	11 (34.3%)
Female	21 (65.6%)
Job	
RTW administrator/counsellor	3 (9.3%)
OHS counsellor	4 (12.5%)
OHS director	1 (3.1%)
HR advisor	2 (6.2%)
HR director	1 (3.1%)
Supervisor	10 (31.2%)
Director, plant/long-term care facility	2 (6.2%)
Co-worker	2 (6.2%)
Administrative assistant	3 (9.3%)
Union representative	4 (12.5%)

B.III Table B3 – Description of the Organizations

	N = 4
Type of organization	
Private	2 (50.0%)
Public	2 (50.0%)
Industry sector	
Manufacturing	2 (50.0%)
Health and social services	2 (50.0%)
Geographic area	
Metropolitan area	2 (50.0%)
Central area	1 (25.0%)
Remote area	1 (25.0%)
Presence of a union	
Yes	3 (75.0%)
No	1(25.0%)
Size	
< 500 workers	2 (50.0%)
501 to 1,000 workers	1 (25.0%)
> 1,000 workers	1 (25.0%)

B.IV Table B4 – List of Codes in the NVivo Coding Tree

Nom	Sources	References
Organization A	0	0
Other actors	4	21
HR	1	1
Supervisors	5	5
Actions and interactions	5	42
Conditions	3	5
Courses of action	4	4
Roles and responsibilities	5	34
Workers	6	23
Organization B	0	0
Other actors	1	8
HR	0	0
Supervisors	2	2
Actions and interactions	2	8
Conditions	0	0
Courses of action	0	0
Roles and responsibilities	2	9
Workers	2	5
Organization C	0	0
Other actors	4	20
HR	2	14
Supervisors	4	4
Actions and interactions	4	19
Conditions	3	3
Courses of action	4	4
Roles and responsibilities	4	16
Workers	3	12
Organization D	0	0
Other actors	3	14
HR	1	3
Supervisors	2	2
Actions and interactions	2	14
Conditions	0	0
Courses of action	1	1
Roles and responsibilities	2	10
Workers	3	15

Legend: HR – HR advisor or manager

B.V Table B5 – Supervisor’s Actions, by Organization

Essential activity	Action			
	Organization A	Organization B	Organization C	Organization D
Preventing accidents and injuries	Adopts a preventive approach (S) Completes the accident investigation and analysis form (S) Does follow-up of the implementation of corrective measures to ensure workers’ safety (S)	Checks the workers’ safety-related behaviours compared to the organization’s prescribed methods and instructions (S) Takes immediate corrective measures to ensure workers’ safety (S)	Enlists health professionals to analyze and solve OHS problems (S)	Participates in and supports all OHS actions (HR) Obtains details on the circumstances of the accident and the corrective measures taken (e.g. meets with staff to review safety measures) (S)
Knowing the RTW procedures	Distributes forms to the worker (S) Completes the accident investigation and analysis report/form and forwards it to HR (HR)	Completes the accident investigation and analysis form (S) Informs the OHS counsellor (HR)	Completes the accident investigation and analysis report/form (HR, S)	Completes and forwards the accident investigation and analysis form/report (HR) (S), resource person if problems arise or for any questions or information (HR)
Communicating with the absent W	Contacts to W to find out how he is doing and how he envisages his RTW (friendly, non-harassing tone) (S)	Contacts the W to find out how he is doing and how long he will be absent (S)	Contacts the W on sick leave (S)	Absence of communication (S)
Planning the RTW solution	Completes the TA form (S) Chooses tasks for the TA in light of W’s FLs (S) Proposes a choice of tasks to the W (S) Assesses the need for training on work methods (S) Participates in planning the RTW solution (S) Holds team meetings to	Completes the TA form (S) Plans the TA tasks in light of the W’s FLs (S) If necessary, goes to the W’s home, provides the tools needed for work if TA carried out at home, and stays in touch to find out how things are going	Proposes a list of tasks that the W could perform when he returns to work (S) Plans workforce replacements (S) Gives the work team updates on the absent W (S) Plans the RTW solution with the Health Office (e.g. work schedule, tasks) (S)	Proposes tasks that respect the W’s FLs (S) Completes the TA form (S) Identifies conditions that are favourable and unfavourable to the RTW Participates in modifying tasks, changing equipment when redesigning a work station (S)

Essential activity	Action			
	Organization A	Organization B	Organization C	Organization D
	reduce tensions and deconstruct judgements about the GR or TA (S)	(S)	Envisages temporary RTW solutions (e.g. adding equipment or work tool) (S, HR) Holds team meetings, provides information on the W's FLs when he returns to work (S, HR)	Distributes work tasks, depending on the W's FLs (S, W) Initiates a problem-solving process (HR)
Overseeing and supporting the W during the RTW (HR)	Meets with the W during his return: Provides information on the tasks to be performed Ensures that the W and work team respect the W's FLs (S) Does follow-up to see how the first day of work went Does follow-up with the W who is on TA or back at his job (S)	Checks that the W has to physician's permission to return to work (S)	Updates the W on any changes (e.g. organizational or new tools) (HR) Ensures that the tasks performed by the W respect his FLs (S) Resolves conflicts when problems arise in the work team due to heavier workloads (S)	Checks whether the W is able to perform the tasks assigned during the RTW (capacity, pace) (S) Enquires about any difficulties the W may have with the TA (HR, W, S) Suggests new positions and movements to the W while waiting for equipment to be adapted or added (S)
Collaborating with the worker (developing a relationship of trust)	Collaborates with the W (S, HR)			Does follow-up with the W to find out if he is able to perform the tasks assigned during the RTW (capacity, pace) (S)
Collaborating with the HR person responsible (exchanging information)	Transfers relevant information on the RTW to the person responsible for OHS and the HR advisor (S, HR) Does monthly follow-up with the Health Office (S)	Does case follow-up with the OHS counsellor (HR)		

Following up with the W and work team after the RTW	Does daily follow-up to find out how the RTW is going (S)		Does daily follow-up with the W to find out if everything is going well (S)	Does follow-up with the W to find out if things are going well, showing flexibility and understanding (S)
Training	Provides coaching (HR)	-	-	-

Legend: S – supervisor, W – worker, HR – HR advisor or manager, RTW – return to work, TA – temporary assignment, GR – gradual return, FL – functional limitations

B.VI Table B6 – Favourable and Unfavourable Conditions, by Organization

Type de condition	A	B	C	D
OHS and organizational culture	F: allowing the W to take breaks as needed, follow his own pace, (S) (HR) Doing personalized follow-up of the W who is returning to work (HR) Communication between the S and other actors (HR)	F: OHS and organizational culture (HR) U: prioritization of actions related to production objectives over actions related to the RTW process	F, U: work atmosphere (HR) F: S participates in a case management program implemented by the S's openmindedness (RH) U: prioritization of actions related to production objectives over actions related to the RTW process	U: prioritization of actions related to production targets over actions related to the RTW process
Resources	F: having more resources for preventive measures (S)		F: structured RTW program or external resources facilitating collaboration among the actors (HR, S)	F: S's autonomy and leeway in making accommodations (HR)
Interpersonal relations	F: good relations between the W, S and HR (HR)	F, U: work atmosphere within the team (W) F, U: interpersonal relationship between the S and W (HR)	F: relationship of trust between the S and W (S, W)	F, U: interpersonal relations between the S and W (HR, W)
Beliefs, attitudes, attributes (positive)	F: empathy (HR) F: T positive and proactive in his RTW (S)	F, U: communication (quality) between the S and W (HR, W) F: empathy, S's understanding of the RTW situation (W)	F: listening to the W's concerns (HR, S) S's involvement with and support of the W (HR) W's positive attitude toward his RTW (HR, W) U: Stress experienced by the W in cases involving contestation (HR) W's willingness to return to work (S) Communications regarding the RTW agreements (S)	F: W's engagement in the RTW process (HR); listening to and understanding the W's situation (HR)

Legend: F – favourable, U – unfavourable, S – supervisor, W – worker, HR – HR counsellor or advisor, RTW – return to work

**APPENDIX C:
 PART 3**

C.I Table C1 – Courses of Action and Specific Actions Included in the Consultation Questionnaire

#	Course of Action	Specific Action
1	Formalize the supervisor's role and responsibilities in the context of the procedures aimed at achieving sustainable RTW	Clarify the supervisor's role and responsibilities regarding sustainable RTW
		Distinguish between the supervisor's responsibilities and those of the other actors involved in the process aimed at achieving sustainable RTW
		Participate in the development of policies and procedures, based on his experience
		Differentiate between accident-prevention actions and RTW actions
2	Communicate with the absent worker to maintain contact	Contact the worker as soon as possible after he goes on sick leave to: - reassure him about his contractual relationship - find out how he sees his return to work
		Come to an agreement with HR about a mechanism for transmitting relevant information about the worker's needs to the supervisor
3	Collaborate with the other actors involved in the process aimed at the worker's sustainable RTW	Collaborate with the worker during the planning and implementation of the RTW solution
		Collaborate with the members of the work team during the planning and implementation of the RTW solution
		Collaborate with the actors responsible for managing the worker's administrative files and forms (e.g. the person performing the role of coordinating returns to work)
4	Support the worker during the process aimed at his sustainable RTW	Support the worker in the various accommodation measures
		Support the worker in cases of conflict with other members of the work team
5	Plan the process aimed at the worker's sustainable RTW	Plan the workforce during the worker's absence (e.g. distribution of tasks, schedules)
		Develop an action plan and discuss it with the worker to identify the options facilitating the RTW
		Plan the worker's RTW based on his needs (e.g. the welcoming back and integration process, review of safety measures, and information on new tools or procedures)
		Plan the RTW with the other actors concerned (e.g. meet with the work team, meet with the HR advisor and RTW administrator/counsellor)

#	Course of Action	Specific Action
6	Carry out the RTW	Meet with the worker as soon as he returns to resume the tasks expected of him, based on his capacities and resources, and reassure him of your support and that of the work team
		Make the necessary accommodations in collaboration with the actors concerned
		Ensure that the worker and the other members of the work team respect the worker's functional limitations
7	Do regular follow-up of the work activities and of their distribution among the members of the work team	Meet with the worker when he returns to work (e.g. information and follow-up meeting about his work capacities and satisfaction with work)
		Inform the work team of the RTW plan before the worker comes back
		In collaboration with the other persons concerned, solve the problems that can arise during the RTW process
8	Train the supervisor on the actions expected of him during the process aimed at the worker's sustainable RTW	Acquire the skills needed to perform ergonomic evaluations of work situations, plan and solve problems related to implementation of RTW solutions (e.g. temporary assignment, accommodations, or adjustments)
		Identify supervisors' training needs regarding the actions expected of them, such as communication skills

Legend: HR – Human Resources RTW – return to work

C.II Table C2 – Questionnaire: Courses of Action for Supervisors During the Process Aimed at Achieving Sustainable Return to Work

INSTRUCTIONS

As a supervisor or other actor involved in the process aimed at sustainable return to work, we would like your opinion on various proposed courses of action for supervisors during the process aimed at the sustainable return to work of workers who have had a work-related musculoskeletal disorder.

This questionnaire asks for your opinion on the pertinence, feasibility, and wording of each course of action, and on the sufficiency of the specific actions proposed to operationalize these courses of action.

To facilitate compilation of your feedback, please complete and return the questionnaire at least five days before the date scheduled for the group meeting.

PERSONS TO CONTACT:

To participate or find out more, contact us:

PART ONE

Please read each course of action and the associated specific actions, then answer the related questions.

Course of action 1: Formalize the supervisor's role and responsibilities in the context of procedures aimed at achieving sustainable return to work (RTW).

This course of action is operationalized through the following specific actions:

- Clarify the supervisor's role and responsibilities in the procedures aimed at achieving sustainable RTW;
- Distinguish between the supervisor's responsibilities and those of the other actors involved in the process aimed at achieving sustainable RTW;
- Participate in the development of policies and procedures, based on his experience;
- Distinguish between accident-prevention actions and RTW actions.

1.1 In your opinion, are this course of action and its specific actions pertinent?
If yes, go to 1.2.

1.1.1 If no, why not?

1.2 In your opinion, are this course of action and its specific actions feasible?
If yes, go to 1.3.

1.2.1 If no, why not?

1.3 In your opinion, are this course of action and its specific actions clearly worded?
If yes, go to 1.4.

1.3.1 If no, can you offer any suggestions?
-

1.4 In your opinion, are there too few actions to formalize the supervisor's role and responsibilities in organizational policies and procedures on sustainable RTW? If no, go to 2.1.

1.4.1 If yes, which action(s) would you suggest adding?
-

Course of action 2: Communicate with the absent worker to maintain contact.

This course of action is operationalized through the following specific actions:

- Contact the worker as soon as possible after his³ return to work to:
 - reassure him about his employment relationship;
 - find out how he sees his return to work.
 - Come to an agreement with Human Resources about a mechanism for transmitting relevant information about the worker's needs to the supervisor.
- 2.1. In your opinion, are this course of action and its specific actions pertinent? If yes, go to 2.2.
- 2.1.1. If no, why not?
- 2.2. In your opinion, are this course of action and its specific actions feasible? If yes, go to 2.3.
- 2.2.1. If no, why not?
- 2.3. In your opinion, are this course of action and its specific actions clearly worded? If yes, go to 2.4.
- 2.3.1 If no, can you offer any suggestions?
-
- 2.4. In your opinion, are there too few actions to operationalize this course of action? If no, go to 3.1.
- 2.4.1 If yes, which action(s) would you suggest adding?
-

Course of action 3: Collaborate with the other actors involved in the process aimed at the worker's sustainable return to work.

This course of action is operationalized through the following specific actions:

- Collaborate with the worker during the planning and implementation of the RTW solution;
- Collaborate with the members of the work team during the planning and implementation of the RTW solution;
- Collaborate with the actors responsible for managing the worker's administrative file or forms (e.g. the person performing the role of RTW coordinator).

³ The masculine form has been used solely in the interests of readability, with no gender discrimination intended.

- 3.1. In your opinion, are this course of action and its specific actions pertinent? If yes, go to 3.2.
 - 3.1.1. If no, why not?
- 3.2. In your opinion, are this course of action and its specific actions feasible?
If yes, go to 3.3
 - 3.2.1. If no, why not?
- 3.3. In your opinion, are this course of action and its specific actions clearly worded? If yes, go to 3.4
 - 3.3.1. If no, can you offer any suggestions?
-
- 3.4. In your opinion, are there too few specific actions to operationalize this course of action?
If no, go to 4.1.
 - 3.4.1. If yes, which specific action(s) would you suggest?
-

Course of action 4: Support the worker during the process aimed at his sustainable return to work.

This course of action is operationalized through the following specific actions:

- Support the worker in the various accommodation measures;
- Support the worker in cases of conflict with other members of the work team.

- 4.1. In your opinion, are this course of action and its specific actions pertinent? If yes, go to 4.2.
 - 4.1.1. If no, why not?
- 4.2. In your opinion, are this course of action and its specific actions feasible? If yes, go to 4.3.
 - 4.2.1. If no, why not?
- 4.3. In your opinion, are this course of action and its specific actions clearly worded? If yes, go to 4.4.
 - 4.3.1. If no, can you offer any suggestions?
-

- 4.4 In your opinion, are there too few specific actions to operationalize this course of action?
If no, go to 5.1.
- 4.4.1 If yes, which specific action(s) would you suggest?

-

Course of action 5: Plan the process aimed at the worker’s sustainable return to work.

This course of action is operationalized through the following specific actions:

- Plan the workforce during the worker’s absence (e.g. distribution of tasks, schedules);
- Develop an action plan and discuss it with the worker to identify the options facilitating the RTW;
- Plan the worker’s return to work based on his needs (e.g. the welcoming back and integration process, review of safety measures, and information on new tools or procedures);
- Plan the return to work with the other actors concerned (e.g. meet with the work team, meet with the HR advisor and with the RTW administrator/counsellor).

5.1. In your opinion, are this course of action and its specific actions pertinent? If yes, go to 5.2.

5.1.1. If no, why not?

5.2 In your opinion, are this course of action and its specific actions feasible? If yes, go to 5.3

5.2.1 If no, why not?

5.3 In your opinion, are this course of action and its specific actions clearly worded? If yes, go to 5.4.

5.3.1 If no, can you offer any suggestions?

-

5.4 In your opinion, are there too few specific actions to operationalize this course of action? If no, go to 6.1.

5.4.1 If yes, which action(s) would you suggest adding?

-

Course of action 6: Carry out the return to work.

This course of action is operationalized through the following specific actions:

- Meet with the worker as soon as he resumes the tasks expected of him based on his capacities and resources, and reassure him of your support and that of the work team;
- Make the necessary accommodations in collaboration with the actors concerned;
- Ensure that the worker and the other members of the work team respect the worker’s functional limitations.

- 6.1. In your opinion, are this course of action and its specific actions pertinent? If yes, go to 7.2.1. If no, why not?
- 6.2.
- 6.1.1 If no, why not?
- 6.2 In your opinion, are this course of action and its specific actions feasible? If yes, go to 6.3.
- 6.2.1 If no, why not?
- 6.3 In your opinion, are this course of action and its specific actions clearly worded? If yes, go to 6.4.
- 6.3.1 If no, can you offer any suggestions?
-
- 6.4 In your opinion, are there too few specific actions to operationalize this course of action? If no, go to 7.1.
- 6.4.1 If yes, which action(s) would you suggest adding?
-

Course of action 7: Do regular follow-up of the work activities and of their distribution among the members of the work team.

This course of action is operationalized through the following specific actions:

- Meet with the worker when he returns to work (e.g. information and follow-up meeting about his work capacities and satisfaction);
 - Inform the work team of the RTW plan before the worker comes back;
 - In collaboration with the other persons concerned, solve the problems that may arise during the RTW process.
- 7.1. In your opinion, are this course of action and its specific actions pertinent? If yes, go to 7.2.
- 7.1.1. If no, why not?
- 7.2 In your opinion, are this course of action and its specific actions feasible? If yes, go to 7.3.
- 7.2.1. If no, why not?

7.3 In your opinion, are this course of action and its specific actions clearly worded?
If yes, go to 7.4.

7.3.1 If no, can you offer any suggestions?

-

7.4 In your opinion, are there too few specific actions to operationalize this course of action?
If no, go to 8.1.

7.4.1 If yes, which action(s) would you suggest adding?

-

Course of action 8: Train the supervisor on the actions expected of him during the process aimed at the worker's sustainable return to work.

This course of action is operationalized through the following specific actions:

- Acquire the skills needed to perform ergonomic evaluations of work situations, plan and solve problems related to implementation of RTW solutions (e.g. temporary assignment, accommodations, or adjustments);
- Identify supervisors' training needs (such as communication skills) regarding the actions expected of them.

8.1. In your opinion, are this course of action and its specific actions pertinent?
If yes, go to 8.2.

8.1.1. If no, why not?

8.2. In your opinion, are this course of action and its specific actions feasible?
If yes, go to 8.3.

8.2.1. If no, why not?

8.3. In your opinion, are this course of action and its specific actions clearly worded?
If yes, go to 8.4.

8.3.1. If no, can you offer any suggestions?

-

8.4. In your opinion, are there too few specific actions to operationalize this course of action?
If no, go to 9.1.

8.4.1. If yes, which specific action(s) would you suggest?

-

PART TWO

This next section includes four questions regarding your overall assessment of the courses of action and how they are operationalized.

9. As a whole, how pertinent are the courses of action proposed for supervisors to their ability to effectively carry out their role and responsibilities regarding the process aimed at the sustainable RTW of workers who have had a work-related musculoskeletal disorder?

Not at all pertinent	Not pertinent	Pertinent	Totally pertinent
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10. As a whole, how feasible would the courses of action proposed for supervisors be in your organization?

Not at all feasible	Not feasible	Feasible	Totally feasible
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11. As a whole, how clear and specific is the wording of the courses of action proposed for supervisors?

Not at all clear	Not clear	Clear	Totally clear
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12. As a whole, how applicable would the courses of action proposed for supervisors be in your organization?

Not at all applicable	Not applicable	Applicable	Totally applicable
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PART THREE

- A. How many years have you been in your current job?
-
- B. What is your current job title?
-
- C. In which industry sector does your organization operate?
-
- D. What is the highest level of education you completed? (check off the appropriate box)
- Secondary or less;
 - College studies/CÉGEP – pre-university sector;
 - College studies/CÉGEP – technical sector;
 - University undergraduate studies – bachelor’s degree;
 - University graduate studies – master’s degree;
 - University post-graduate studies – PhD.
- E. Other (please specify). Which department or division in your organization do you fall under?
- Human Resources;
 - Occupational Health and Safety;
 - Operations;
 - Other (please specify).
- F. Does the organization you work for have more than one site (office, branch, plant, etc.) in Québec?
- Yes
 - No
- G. Does the organization you work for have at least one site in another Canadian province?
- Yes
 - No
- H. Is the organization you work for a multinational, i.e. does it operate in at least one other country than Canada?
- Yes
 - No
- I. Is the organization you work for private?
- Yes
 - No
- J. Is the organization you work for unionized?
- Yes
 - No
- K. To the best of your knowledge, how many workers does your organization employ in Québec?
- Over 5,000 workers
 - Between 1,000 and 4,999 workers
 - Between 501 and 999 workers
 - Between 251 and 500 workers
 - Between 51 and 250 workers
 - 50 workers or less.

C.III Table C3 – Description of the Participants

	N = 18*
Gender	
Male	9 (50.0%)
Female	9 (50.0%)
Tenure in current job	
2 to 4 years	8 (44.4%)
5 to 9 years	4 (22.2%)
10 years or more	6 (33.3%)
Type of actor	
Supervisor	4 (22.2%)
Other actor (Director, Human Resources)	7 (38.9%)
Other actor (Health or OHS Department)	7 (38.9%)

*Note: One participant did not complete the section on sociodemographic information.

C.IV Table C4 – Description of the Organizations

	N = 18
Type of organization	
Private	13 (72.2%)
Public	5 (27.8%)
Industry sector	
Manufacturing	9 (50.6%)
Health and Social Services	3 (16.7%)
Construction	2 (11.1%)
Transportation	1 (5.6%)
Entertainment	1 (5.6%)
Administration and Other Services	1 (5.6%)
Trade	1 (5.6%)
Geographic area	
Metropolitan area	6 (33.3%)
Central area	9 (50.0%)
Remote area	3 (16.7%)
Union presence	
Yes	13 (72.2%)
No	5 (27.8%)

C.V Table C5 – Applicability of the Courses of Action, by the Organizations' Characteristics

Characteristics of the organizations	Details on applicability factors facilitating or hindering the RTW
Size	
- Large	(+) Sharing of responsibilities between the S and the other actors. (+) More resources specialized in RTW (nurses, health and safety committee representatives, work accident management counsellors, etc.).
- Small	(+) Proximity of the actors.
Location	
- Metropolitan area	(+) Easy to recruit supervisors; choice of RTW skills. (-) Hard to recruit supervisors; supervisors lack RTW skills.
- Central and remote areas	(+) Proximity of S and W.
Union presence	(+) Union representatives help reassure the W and support him during the different processes. (-) Constraints in relocating workers to TAs.
Nature of the work	
- Team work	(+) S helped by the workers on his team. (-) Assigning the worker has major consequences on the other members of the team.
Prevalence of MSD cases involving RTW	
- <i>Higher</i>	(+) S exposed to RTW situations; may develop skills (interpersonal, communication, actions).
Tools	
- W reintegration form pertaining to the job.	(+) Identification of light tasks.
- Document for sharing information on the W's FLs	(+) Respect show for FLs.
- Pamphlets on the RTW process to be given to the W at the beginning of his sick leave.	(+) Providing the W with information on the RTW fosters his adherence to the plan and implementation of the RTW solution.
- Refresher training for the W during his RTW.	(+) Reduces fears and uncertainties.

Legend: W – worker, S – supervisor, RTW – return to work, OHS – occupational health and safety, (+) – favourable factor, (-) – unfavourable factor; FL – functional limitations.