



Acceptability and Feasibility of a Shared Decision-Making Model in Work Rehabilitation: A Mixed-Methods Study of Stakeholders' Perspectives

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Abstract

Purpose To establish the acceptability and feasibility of implementing a shared decision-making (SDM) model in work rehabilitation. **Methods** We used a sequential mixed-methods design with diverse stakeholder groups (representatives of private and public employers, insurers, and unions, as well as workers having participated in a work rehabilitation program). First, a survey using a self-administered questionnaire enabled stakeholders to rate their level of agreement with the model's acceptability and feasibility and propose modifications, if necessary. Second, eight focus groups representing key stakeholders (n = 34) and four one-on-one interviews with workers were conducted, based on the questionnaire results. For each stakeholder group, we computed the percentage of agreement with the model's acceptability and feasibility and performed thematic analyses of the transcripts. **Results** Less than 50% of each stakeholder group initially agreed with the overall acceptability and feasibility of the model. Stakeholders proposed 37 modifications to the objectives, 17 to the activities, and 39 to improve the model's feasibility. Based on in-depth analysis of the transcripts, indicators were added to one objective, an interview guide was added as proposed by insurers to ensure compliance of the SDM process with insurance contract requirements, and one objective was reformulated. **Conclusion** Despite initially low agreement with the model's acceptability on the survey, subsequent discussions led to three minor changes and contributed to the model's ultimate acceptability and feasibility. Later steps will involve assessing the extent of implementation of the model in real rehabilitation settings to see if other modifications are necessary before assessing its impact.

Keywords Rehabilitation · Shared decision making · Work · Injuries · People with disabilities · Chronic pain

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Background

In recent years, worker rehabilitation has been of increasing interest to stakeholders who encounter challenges with work disability. Workers who face hardships following injury at work represent 10.4% of the labour force in the United States [1]. These situations translate into workers and their healthcare professionals having to make difficult decisions. Given that the factors hindering return to work are associated less with the illness or injury itself and more with any resulting disabilities [2], the “work disability paradigm” was developed in 2001 by Loisel et al. in Canada. The paradigm emerged out of two needs: the need to go beyond the medical model and have workers, healthcare professionals, employers, unions and insurers adopt a broader and shared view of the biopsychosocial factors associated with disability, and

the need to promote concerted action among these stakeholders [2].

Within the four systems involved in the work disability paradigm (individual, healthcare, workplace, and legislative and insurance systems), different stakeholders often have diverging interests [3]. Consequently, workers and the diverse types of stakeholders influencing decisions about the return-to-work (RTW) options tend to have differing expectations. This misalignment between workers' and other stakeholders' expectations may result in their seeking different action plans (e.g. managing pain vs. a progressive return to work) and in the application of different criteria for evaluating the efficacy of these actions (e.g. pain reduction vs. ability to perform work activities) [4]. Based on the current literature, a "shared decision-making (SDM) approach" could help reduce this misalignment. The SDM process is used mainly in the healthcare sector. SDM is commonly defined as a relationship between a patient and a healthcare professional (HCP) where there is an exchange of information on available options and their potential benefits and risks, a discussion of the patient's preferences, and an agreement reached about the goals and action plan. This is followed by an assessment and readjustment of the plan if necessary [5].

To promote implementation and evaluation of SDM in the work disability prevention context, we operationalized an SDM rehabilitation model [6]. This theory-driven SDM model was based on consensus among service providers (healthcare professionals) and could be applied to the realities of work rehabilitation for workers living with persistent pain secondary to a musculoskeletal disorder (MSD) [7]. Beyond the essential concepts involved in SDM [8], when operationalizing the SDM model specifically in the work rehabilitation context, it was deemed important to formally include three other concepts, namely, a working alliance between the worker and the HCP, concerted action among all other stakeholders, and goal setting [6]. A working alliance is typically defined as the patient's perception of having a common agreement with the HCP on tasks and goals, together with the existence of a trust-based therapeutic relationship with the HCP [9]. The SDM rehabilitation model includes a number of objectives and related activities that incorporate these three essential elements for work rehabilitation contexts [6]. The model is designed to align with an already existing work rehabilitation program, which is provided by the HCP. In our context, occupational therapists are usually the main professionals providing work rehabilitation once the patient's participation has been authorized by a treating physician. In practical terms, at the beginning of the work rehabilitation program, a number of objectives are pursued in a "deliberation phase," which can be carried out in one or two meetings between the worker and an HCP. However, before the first meeting, the HCP must

exchange information with the other stakeholders in order to understand the constraints that could influence the feasibility of available options. Thus, the other stakeholders are not expected to attend the meeting, but their perspectives must be taken into consideration in the deliberation process between the worker and the HCP. After an agreement is reached on possible options, the next phase involves implementing the chosen option.

Regarding the legislative context in which the SDM rehabilitation model could be implemented, each country has its own laws and regulations governing work rehabilitation. The context of our study is a cause-based system in which the work disability may stem from a work-related accident/illness, work-related traffic accident, or personal condition rendered symptomatic or aggravated by work. It thus involves different public and private insurance systems. Regarding employers, their obligations (aside from those pertaining to labour standards) will differ, depending on the insurance system and the collective agreement, if there is one. The SDM rehabilitation model therefore needs to be sufficiently generic to apply to these various contexts. Hence we deemed it essential to document our model's acceptability and feasibility among key stakeholders (employer, union, insurer and worker), both because of the sociopolitical context and because they all participate in the decision-making process about the RTW. Given how little we knew about the opinions of the diverse stakeholder groups on our newly proposed SDM model, we sought to establish their views on the acceptability and feasibility of implementing the SDM rehabilitation model for workers.

Methods

Ethics Statement

The study was approved by the Ethics Committee of the Charles LeMoine Hospital Research Centre in Longueuil, Quebec (project number: MP-HCLM-09-027). The study protocol was also approved by all the affiliated research ethics committees of the participating rehabilitation centres, and all stakeholders gave their informed written consent for the recording and transcription of the interviews and focus groups. Participants were advised that all collected data would be kept confidential and anonymized.

Study Design

This study was embedded within a broader multi-phase study whose general objective was to implement an SDM model adapted to the work rehabilitation realities of workers living with persistent pain secondary to an MSD [6, 10–12]. We used a descriptive sequential mixed-methods design [13],

including both quantitative and qualitative data collection. We also used a two-phase approach, adapted from Gervais et al. [14] (1) that involved having the same participants complete a survey in the form of a self-administered questionnaire and (2) they were invited to take part in a series of focus groups (one for each type of stakeholder except workers) in which they were also invited to identify the important modifications to make in order to sustain acceptability and feasibility of the model. Individual interviews were conducted with the workers, as a focus group was not practicable [14]. To promote explicit and comprehensive reporting of information regarding all aspects of the study, we used the Consolidated criteria for REporting Qualitative research (COREQ) for qualitative studies [15].

Participants and Setting

We recruited a convenience sample of private and public employers, insurers and clinics to identify potential workers, and of employer, union and insurer representatives from Quebec, Canada, to participate in the study. Inclusion criteria were as follows: for workers, having participated for less than 2 years in a work rehabilitation program (with or without success in returning to work) for a persistent musculoskeletal problem causing more than 3 months of work absence; for employer and union representatives, having participated for less than 2 years in the work rehabilitation process of at least one worker who had been absent from work for more than 3 months due to a persistent musculoskeletal problem; and for insurers, having worked for more than 2 years full-time in work rehabilitation with workers living with a persistent musculoskeletal problem. More experience was sought from insurers, given that in our legislative context, they coordinate the entire disability process and have to comply with the legislative/regulatory aspects, whereas employers and unions benefit from insurers' support. The recruitment period lasted from May 2011 to November 2012.

Data Collection

Phase 1: Survey Using a Self-Administered Questionnaire

First, we sent a brief document explaining our SDM rehabilitation model to each participant, along with a paper questionnaire and consent forms. The self-administered questionnaire previously used with service providers to develop our SDM model [6] was used again here. It included five statements [16, 17] that assessed whether all objectives presented in the model were (1) necessary and sufficient for SDM in work rehabilitation, (2) clearly formulated, and (3) feasible. Statement 4 assessed whether all activities in the model were necessary and sufficient. Statement 5 assessed the feasibility of implementing the SDM model for work

rehabilitation. The level of agreement with each statement ranged from 1 (totally disagree) to 4 (totally agree). When participants "totally disagreed" or "disagreed" with a statement (rating of $\leq 2/4$), they were asked to suggest ways to improve the objective, activity or feasibility. Also, for this study, four questions were added to encompass broader issues that could influence acceptability or feasibility: "What element should be the object of SDM between the worker and the HCP?", "What decision should not be discussed in an SDM encounter?", "When should you be consulted during the SDM process?" and "Who should communicate with you to discuss the options and the implementation of the action plan?" All questionnaires were returned prior to the series of focus groups or interviews to provide preliminary findings that would help better structure the discussion. This also gave each participant time to reflect individually on the topic, thereby limiting, for Phase 2, the bias created when only quicker or more articulate participants contribute to the discussion.

Phase 2: Focus Groups

Each suggestion made by participants when answering the questionnaire during Phase 1 was anonymized and transcribed into a summary of findings. The summary was given to the same participants who completed the survey and participated in the focus groups or one-on-one interviews, in order to stimulate discussion in each group of stakeholders. The summary of findings first presented answers to the four questions and then grouped all the participants' suggestions under each objective or activity in the SDM model. Lastly, it presented the opinions expressed about the model's feasibility. The topics discussed in the focus groups and interviews thus corresponded to the elements in the SDM model (objectives and activities) were included in the summary of findings so that participants could jointly construct and expand on their comments and suggestions. Converging and diverging results were discussed in the groups, and at the end of a discussion on an objective or activity, the facilitator gave a summary to ensure comprehension and help the participants identify the changes required for an acceptable SDM model. The focus groups were audiotaped. One researcher (MFC) conducted four, 3-h focus groups and a research assistant (MEL) took notes. Following training by MFC, MEL completed the remaining data collection (three groups) with another person taking notes. We opted to have facilitators (MFC and MEL) who were knowledgeable about SDM in work rehabilitation as they would be able to answer questions. Ensuring a sound understanding therefore took precedence over the facilitators' interests. Also, open-ended questions were formulated as neutrally as possible to prevent leading the participants' responses. The majority of the focus groups were held in a university setting, but one

was held in a union office to accommodate participants. We initially intended to organize a focus group with workers, but ended up conducting four individual interviews instead because it was not possible to schedule a common date. We chose to hold homogenous focus groups based on the context, legislative system or role of each stakeholder (e.g. human resources, direct supervisors, Workers' Compensation Board, Automobile Insurance Board). To promote the generalizability of our findings, it was necessary to conduct more than one discussion group with the employer and insurance stakeholders. Participants were individually paid for their participation outside working hours. Two public insurers and one union group asked for their employees/members to attend during working hours and did not want them to be compensated for their time.

Data Analysis

For the survey, we calculated the percentage of participants (in each stakeholder group) agreeing with each of the five statements. We were thus able to identify statements for which there was no general agreement among the participants in a given stakeholder group and which, therefore, required in-depth discussion. We performed thematic analysis of the transcripts of the focus groups and interviews. First, coding was performed using the qualitative data-support analysis software ATLAS/ti [18]. Emergent codes were sought by opting for open coding in an effort to remain as faithful as possible to the transcripts. The interviews were coded by a research assistant and the principal investigator to obtain inter-rater agreement [19]. First, the interviews were coded by two coders, and the codes were then compared. Diverging results were discussed and clarified. This process was repeated until inter-rater agreement of 90% [20] was obtained. Based on the thematic analysis of the transcripts, a summary of the main findings regarding ways to improve the objectives, activities, or feasibility and acceptability of the SDM model was written for each focus group and interview. All coded excerpts were then grouped in order to identify similarities and differences between and across stakeholders, and ultimately to help establish the final SDM model for work rehabilitation.

Results

Participants' Characteristics

A total of 51 stakeholders were eligible to participate in the study: 12 employer, 25 insurer and 8 union

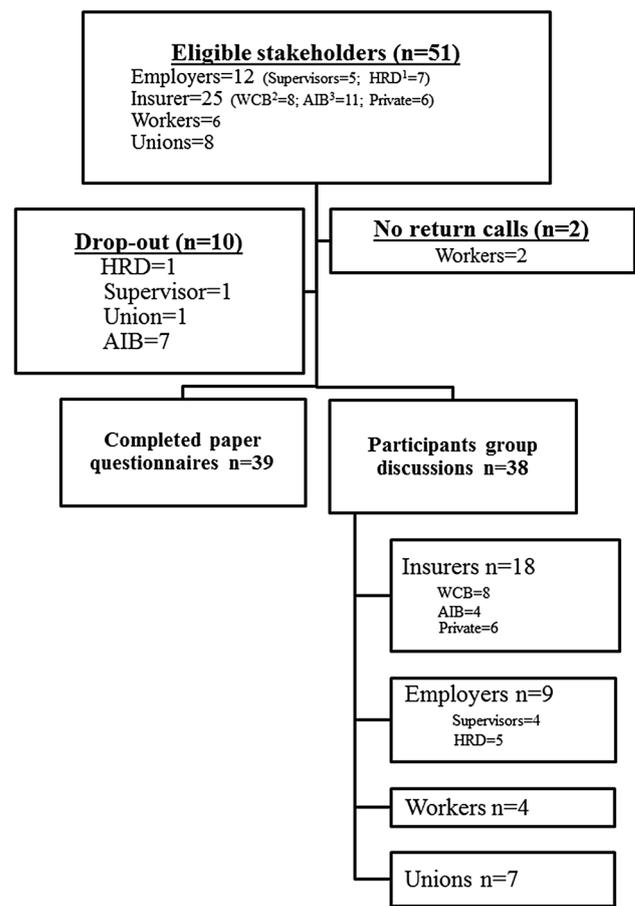


Fig. 1 Flowchart for participants in group discussions or interviews. ¹Human resources department, ²workers' compensation board, ³automobile insurance board

representatives, and 6 workers (Fig. 1). Ten participants dropped out after initially agreeing to participate, and two workers did not return our calls to schedule a meeting. The response rate was 76% for the questionnaire (n = 39). We conducted four individual interviews with the workers and a total of eight focus groups, respectively representing (1) a workers' compensation board, (2) an automobile insurance board, (3 and 4) two private insurers, (5) one human resources department, (6 and 7) two unions, and lastly, (8) direct supervisors. Focus group discussions lasted 105 min on average (range 49–168) and individual interviews lasted an average of 62 min (range 49–74).

Recruited participants were from urban and semi-rural regions. Most were women with a mean age of 42.28 years (see Table 1). Aside from workers, participants had an average of 8.98 years of experience in work rehabilitation and were mostly university graduates (72%) in various fields of study (humanities, communications, health, engineering, law and business).

Table 1 Stakeholder's characteristics

Variables	Total N=39	Insurers n=19	Employers n=9	Unions n=7	Workers n=4
Age					
Mean (SD)	42.28 (9.61)	41.72 (9.03)	38.00 (11.52)	45.33 (9.24)	45.50 (13.53)
Sex (%)					
Male	14 (36)	6 (32)	4 (44)	3 (43)	2 (50)
Female	25 (64)	13 (68)	5 (56)	4 (57)	2 (50)
Level of education (%)					
High school	6 (15)	0 (0)	1 (11)	4 (57)	1 (25)
College	5 (13)	2 (10)	0 (0)	2 (29)	1 (25)
Univ.—Bach	19 (49)	10 (53)	7 (78)	1 (14)	1 (25)
Univ.—Master's	9 (23)	7 (37)	1 (11)	0 (0)	1 (25)
Years of experience in work rehab.					
Mean (SD)	8.98 (5.71)	7.26 (2.80)	8.90 (4.38)	11.57 (7.74)	12.75 (12.53)
Off-work duration					
Mean in months (SD) (for workers only)	–	–	–	–	28.25 (21.82)

Acceptability and Feasibility of the SDM Rehabilitation Model

In Phase 1, the survey, the percentage of participants agreeing with the statements (see Table 2) essentially indicated the need to discuss all statements with all stakeholder groups. Indeed, in this phase, aside from workers, the percentage of participants in the “agreement” category (≥ 3 over 4) reached 50% at best within each stakeholder group. The suggestions made by the participants in the questionnaire concerned ways to improve an objective, an activity, or the feasibility or acceptability of the SDM model. The 39 participants made a total of 37 suggestions regarding the 11 objectives and 17 regarding the activities proposed in the SDM model. A total of 39 comments were made about SDM feasibility in work rehabilitation. For

each completed questionnaire, this represents an average of 2.4 suggestions or comments per participant.

In Phase 2, the participants' suggestions and their answers to the four questions were discussed in-depth in their respective group of stakeholders. Discussions in the focus groups or interviews suggested that, overall, stakeholders found the model to be acceptable and feasible within a rehabilitation program, contingent upon a few modifications. The next section presents findings on the acceptability and feasibility of the SDM model's objectives and the related activities. To provide a more in-depth and integrated understanding, the main points emerging from the discussions on the four additional questions in the stakeholder groups and interviews are presented under the relevant objective below. Each objective or activity was judged essential by all stakeholders.

Table 2 Percentage of stakeholders in the “agreement” category

Statements	Insurers n=19			Employers n=9		Unions n=7 (%)	Workers n=4 (%)
	AIB ^a (%)	WCB ^b (%)	Private (%)	HR ^c (%)	Super- visors (%)		
Statement 1: The objectives are necessary and sufficient for SDM	50	12.5	16.7	0	0	25.0	100
Statement 2: The objectives are clear and specific	25	12.5	0	16.7	0	25.0	33
Statement 3: The objectives are feasible in a context of SDM	25	25.0	16.7	33	0	12.5	50
Statement 4: The activities are necessary and sufficient to attain the objectives	50	25.0	16.7	0	0	25.0	100
Statement 5: The SDM process can be implemented in current practice	25	12.5	33	50	0	12.5	50

^aAutomobile insurance board^bWorkers' compensation board^cHuman resources

Objective 1: Ensuring a Working Alliance Between the Health-Care Provider and the Worker

For workers, failure of the healthcare provider, such as an occupational therapist (OT), to establish a working alliance with the worker would be a major obstacle to SDM implementation. In their minds, OTs are essential because they spend the most time with workers during their rehabilitation. According to unions, this alliance helps reduce workers' doubts and fears about their condition, and the OT is the person best suited to help workers make quality decisions regarding their rehabilitation. As the third-party payer, private insurers see this alliance as potentially exclusive.

“(…) it's true that there's some sort of a relationship created between the worker and the clinical professional. That's clear, you know. Then there's often information that you, you'll never get, as the insurer, because you represent a paying organization, you know.” (Public insurer, WCB)

Objective 2: Identify the Problem Needing an SDM Process

Return-to-work conditions and choice of action plan emerged as convergent themes across all stakeholders and as relevant for discussion between the HCP and the worker. The workers clearly saw these two themes as providing an opportunity for establishing, with their OT, an RTW program that respected their capacities and reflected their preferences. The union representatives stressed the importance of taking the job demands into account beforehand and of envisaging adaptations that could prevent injury relapses. The insurers discussed this objective in greater depth than the other stakeholders. In terms of what problem should be the object of SDM between the worker and the HCP, the private insurer representatives mentioned being open to including other comorbid health conditions, if deemed necessary in the SDM process. However, the HCP should check that these conditions are covered by the plan or meet the insurance contract requirements. The insurers felt that, otherwise, these discussions could create unrealistic expectations in the workers' minds and feared that this could negatively impact the working alliance. They also felt that these discussions could be regarded as the HCP interfering (e.g. work conflicts) in the employer's management process. The insurers feared a negative impact on the concerted action among stakeholders, as the HCP could be perceived in these case as overstepping his or her mandate.

Regarding the objective of formulating a problem to everyone's satisfaction, initially, private insurers reinforced the need to systematically conduct the activity identified in the

model as “HCP's phone contact with the insurer”, right from the beginning of case management and prior to the SDM meeting with the worker. A material resource—an interview guide—was suggested as a means for systematizing this contact. Private insurers proposed including in the interview guide several generic questions that identify the essential components of insurance contracts, of the employer's realities or constraints, and of the problem associated with the worker's disability and his or her RTW. These questions were subsequently presented to the public insurer focus groups. Adding an interview guide designed to support the systematization of the HCPs' activity of collecting information from the insurers was deemed pertinent by all stakeholders. However, the content was further adapted to public insurers' realities.

Objective 3: Explore the Determinants (Obstacles/Facilitators) Associated with the Work Disability

The public insurers stressed the importance of documenting whether a worker experiences losses (e.g. a job that has completely changed during the work absence, the presence of major physical or psychological limitations) associated with the work disability, as these could influence his or her desire to RTW. The workers partly agreed with the idea that such limitations could have an impact on the RTW, as manifested in the concerns they expressed about how others would see them. The absence of the possibility of work accommodations was also mentioned by all stakeholders as an important determinant. Conversely, the employer representatives observed that some workers underestimate their condition because they are so intent on returning to work full-time. All told, most of the stakeholders highlighted the importance of triangulating the information provided by the worker with that provided by other stakeholders.

“You have to listen at some level, and then check. Not just say, ‘okay, so that's how you see it (…).’ You have to try to understand why the person is afraid of a certain task. How is the task carried out, what does it involve? (...) You have to go looking for the causes and then try to eliminate them.” (Union representative, group 2)

Objective 4: Identify a Common Objective for Returning to Work

The employer representatives considered it important for everyone to agree on a common objective, even if each party has a different role or different issues and uses different means to achieve the objective. The insurers saw this objective as allowing them to take part in the decision making, since, from their perspective, the final decision is up to

them. In fact, the insurers did not see themselves as forming an integral part of the SDM process as presented, yet it was important in their minds to ensure that the objective is shared not only by the HCP and the worker but by all stakeholders. On the other hand, insurers regarded it as essential that the worker adhere to the common objective if results are to be obtained. They insisted that the worker be part of the process of identifying a specific objective, regardless of the various constraints associated with insurance contracts.

For their part, the union representatives were concerned that the common objective would be influenced by the insurer, as a third-party payer, and that this would introduce bias into the SDM process. For them, it was unrealistic to think that the mandate given by the insurer to the work rehabilitation clinic would not be reflected in the wording of the objective set by the HCP. The workers, on the other hand, preferred to set their objective with the OT, whereas the insurer representatives wanted to see “among all stakeholders” included in the wording of Objective 4.

When the content of the common objective was discussed, the different stakeholders’ ideas varied as to what the objective should contain. For example, the workers saw it as important to discuss specifics such as being able to lift a specific load, do a full day’s work, do tasks at home, or simply sleep, before even contemplating a RTW. The stakeholders were in fact unanimous about the importance of these types of objectives relating to the development of capacities, but were also fearful that they would become the only objective or delay the RTW if they were not clearly work-related. The public insurers believed that in some cases, the worker’s goal is not that of returning to work and that this could interfere with the identification of a common objective among stakeholders.

“For him, it’s nice and easy to go to the little private, frontline clinic twice a week, a pain clinic, because he feels better. It takes his pain away. He’d be happy to keep going there for another 6 months. That suits him just fine. There are some... some secondary gains gradually enter into the picture.” (Public insurance, Automobile Insurance Board)

Objective 5: Make the Decision Explicit

The workers and the insurer representatives had difficulty understanding this objective. It was proposed that the word “explicit” be replaced by “clear.” Some public insurers associated the word “explicit” with “enforceable,” which to them implies little room for change. This vocabulary issue has the potential of creating even more friction in real practice between insurers and HCP, as the latter have to adjust the rehabilitation program to the workers’ capacities.

“But maybe that’s where things go wrong too, between the OTs and the rest of us. Because for us, when the decision is explicit, well that means enforceable, whereas sometimes the OTs change things along the way. There are a whole bunch of little things that change, that really irritate us, you know. But that’s because for us, it’s enforceable (...) When the decision is explicit, well that’s when we make our contract. You have to understand that the next day, if there are things that affect...and then we realize that... Well, we don’t modify [the contract] at that point.” (Public insurance, Automobile Insurance Board)

Objective 6: Evaluate Determinants Influencing the Worker’s Decision

The need for clarity in this objective was discussed by most of the stakeholders, apart from the union representatives. The discussion pertained to misunderstandings that occurred during Phase 1 of the research involving the self-administered questionnaire. After the objective was clarified in the focus groups using examples, neither the workers nor the employers suggested any additions or changes. However, some of the insurer representatives proposed combining this objective with other objectives (e.g. 6, 7 and 8; or 3 and 6) to limit the number of objectives. Regardless, all stakeholders recognized the pertinence of the objective and, more specifically, the importance of assessing workers’ representations of their situation and disability, their uncertainty about the course of action to take (decisional conflict) and their predisposition for a certain choice.

Objective 7: Identify and Evaluate the Options

Again, some public insurer representatives would have liked to add “with all stakeholders involved” to the wording of the objective to give everyone, not just the HCP, the opportunity to evaluate the options. In fact, all the stakeholders indicated that they want to be consulted from the very beginning of the process to ensure that there are no administrative, financial or contractual impediments to the options selected. In this regard, the stakeholders proposed that one person should contact everyone to ensure that they are all informed of the possible options and thus, that all stakeholders are involved in evaluating the options.

“You know, for sure information is exchanged. The OT calls me along the way to tell me something or other. And I talk to my injured person during the program, I talk to the employer, the injured worker calls his employer. You know, the team itself, on its own there, the interdisciplinary team at the clinic, does its own thing internally; every week or from time to time, they

hold discussions about cases, talk about the patient, all the stakeholders involved, or in any case, as much as possible, [...] I mean, at least once in the [rehabilitation] program there's a meeting where everybody sits down together, and we... we re-examine things... No, it was more in the sense that I didn't see the idea of all the stakeholders involved, you know." (Public insurance, Automobile Insurance Board)

The workers, on the other hand, do not want all the stakeholders to be involved in an SDM meeting. According to the union representatives, workers very often have difficulty expressing themselves, and this discussion should therefore take place between the worker and the HCP. However, at the very least, the insurers and employers want contact with the stakeholders prior to the SDM meeting. The public insurer representatives actually stated that when they refer to a rehabilitation program, they already have certain options in mind (e.g. progressive return to work) to present in light of the insurance-related guidelines or known constraints at the employer's. According to the union representatives, the collective agreement must also be taken into account when identifying options. For several companies, the union representatives are automatically notified by the employer when an accident occurs because this is required in the collective agreement. However, this practice is not characteristic of all companies. According to the union representatives, experience has shown that their involvement right from the outset is beneficial for everyone and prevents unrealistic expectations from being created in the worker's mind. Moreover, for certain jobs, specific requirements such as compulsory training or seniority are often stipulated. The union representatives therefore believe there should be a consensus on the options identified and their evaluation. They stressed the importance of taking the worker's values into account when options are being chosen and evaluated. They fear that decisions may be made solely on the basis of the worker's functional limitations.

Objective 8: Reach an Agreement on the Option that Should be Chosen

The insurers would like to add "among all stakeholders" to the wording of this objective to ensure concerted action, as mentioned earlier.

Objective 9: Identify the Means to be Put in Place (Action Plan) for the Selected Option

Both workers and employers deemed this essential because it creates a common understanding of the actions to be taken, particularly if there is a written document supporting the

identified means (action plan). The following worker's citation illustrates this point.

"It's really this role, the one of preparing, essentially, a paper or a document that really makes the program explicit. So, like, once it's on paper, sometimes it really makes it clearer for people, and it makes it possible to see what's happening, and then to say 'yes, that's what I want.'" (Worker, W25)

For the employer representatives, the addition of a material resource such as a written document could also be helpful when specifying each party's role during the process of identifying the means to be put in place. They would even like to see this document serve as the basis for a therapeutic contract. The therapeutic contract idea was also discussed by the public insurers. For them, its purpose is to define roles and responsibilities, as well as the sanctions applicable for non-compliance.

While one group of public insurers regarded this objective as essential, some members of this group considered that they should be the resource person for putting the means in place, as evidenced in the following citation:

"The day that there's actually a plan... I'm thinking, for example, of a plan where responsibilities are shared. For sure the insurer should be there with the HCP and the worker to provide a framework, if nothing else, the legal framework for all that lies ahead, to see if he clearly understands the objectives, why we're there, and all that. [...] it could almost be us at the end of the day [who identifies the plan of action]." (Public insurer, Workers Compensation Board)

The employer representatives requested one clarification about implementing the means. For them, the RTW should be planned in advance, and the plan needs to be explicit to give the employer a better understanding of the worker's situation. Depending on their experience, employers often learn only at the last moment that the worker is going to start back to work, and this disrupts work organization. Similarly, the union representatives stressed the importance of preparing coworkers for the person's return since he or she will not necessarily have the same capacities as before and work may have to be redistributed. It was specifically suggested by the direct supervisors' group that all conditions (e.g. working hours, tasks, accommodations) related to the RTW be pre-determined. The union representatives mentioned the importance of sensitizing the employer to the need to offer the worker an appropriate welcome back.

Various obstacles to the implementation of Objective 9 were mentioned. For example, the employer and union representatives said that interpersonal relations at work could deteriorate during the worker's rehabilitation, in turn creating anxieties for the worker. This point was confirmed by

the public insurers, who know that the return can prove difficult when a worker learns, for example, that the employer does not want to take him or her back. Another obstacle or fear perceived by the employer representatives is potential interference by the occupational therapist when there is a work conflict.

Objective 10: Implement the Action Plan in the Rehabilitation Program Together with the Key Stakeholders

The employer representatives added the nuance that they would prefer to see an action plan follow-up activity implemented throughout the SDM process (at the beginning, in the middle and at the end) to ensure that information is circulated among all stakeholders. Regarding the question, “who should communicate with you?”, the direct supervisors in particular would prefer to be contacted by Human Resources so they can be sure of the legal aspect of the options to be put in place. In their minds, contact with the HCP is therefore not essential when implementing the action plan in the rehabilitation program. All they ask is to be sent an email allowing them to verify the means to be put in place, which they would then simply have to confirm. For the insurer representatives, their preferences regarding the conditions for follow-ups of action-plan implementation varied from one person to the other. It was recommended (and supported by most of the stakeholders) that the HCP check with every insurer referring a worker for work rehabilitation to find out the type of follow-up the insurer wants to see and with which person/resource (e.g. clinical coordinator, OT).

Longitudinal Objective: Maintain a Concerted Action and Ensure a Common Understanding Among all Stakeholders

The insurer and employer (more specifically, the health office) representatives confirmed the need to establish a concerted action, but primarily the need to maintain it throughout the program. The employer (health office) representatives specifically emphasized the need to also ensure a common understanding and joint action among all stakeholders. The following citation illustrates the importance of a common understanding.

“So that at least we’re all talking about the same thing. For me, it’s about transparency (...) you’re the one who had the accident, but we’re all going to talk together about what’s happening so that it doesn’t become biased or distorted, or whatever.” (Public insurer, Workers Compensation Board)

Discussion

Through a mixed-methods study using a questionnaire, focus groups and individual worker interviews, we were able to assess the acceptability and feasibility of a newly proposed SDM model for work rehabilitation contexts, with various stakeholders in work disability. Overall, despite low initial agreement with model acceptability on the survey, subsequent discussions revealed that, following three modifications, our final version of the SDM model for work rehabilitation would be acceptable and found feasible by all stakeholders regardless of their disciplines, professions or roles. The three modifications include: addition of two indicators in the longitudinal objective, the provision of one material resource, and changes to the wording of one specific objective. The final English version is available on the following website: <https://www.usherbrooke.ca/caprit/boite-a-outils/outils-de-mesure-et-de-transfert-de-connaissances/outils-de-transfert-de-connaissances/>.

First, two indicators (level of agreement among all stakeholders on: (1) the objective; and (2) the action plan) were added to allow this objective to be measured. With this addition, the model addresses one of Pransky’s recommendations [21] regarding the need for research to come up with a model that allows communication to be documented, using indicators, not only in the clinical (patient-HCP) context but also in workplace or insurance contexts.

Second, insurers asked that the SDM meeting held during the deliberation phase between the worker and the HCP be conducted with all stakeholders rather than in a dyad format. However, workers and union representatives did not agree with a group meeting. Discussions with insurers revealed that the activity (the meeting) was a means of addressing an important concern, namely, that the insurance contract requirements need to be taken into consideration to avoid creating false hope for the workers regarding non-feasible options. The focus groups thus helped identify ways of addressing the insurers’ concerns that would also be considered suitable by all other stakeholder groups. It was in this context that the insurers suggested adding an interview guide as a material resource to be used by HCP to collect stakeholders’ data prior to the SDM meeting. Insurers during the groups proposed including in the interview guide several generic questions that identify the essential components of insurance contracts, of the employer’s realities or constraints, and of the problem associated with the worker’s disability and his or her RTW. The guide can be found on the same website as cited above. Use of this guide should ensure that the SDM process complies with the requirements of each worker’s insurance contract. Moreover, generally speaking, this

material resource (the guide) should facilitate communication with stakeholders, as communication is vital to facilitating the RTW [22]. The added value of adopting a constructivist approach in this study is that although the initial request to conduct a meeting with all stakeholders was not retained, the stakeholders themselves identified a suitable alternative. This finding also highlights the divergences among stakeholders. Indeed, the workers requested a dyad format, and as they are at the core of the work rehabilitation process, they should be respected when they clearly disagree with the idea of a group meeting for the deliberation phase of SDM. The union representatives also reinforced this idea, asserting that workers may have a hard time expressing themselves in a group. Moreover, the results of a meta-analysis of 106 studies revealed that patients have a 2.16 greater chance of adhering to treatment when there is positive communication with their health professional [23]. From an SDM perspective, some may argue that in a context where there is already an insurance contract with fixed terms, the SDM process may not be genuine. In actual fact, it is genuine, since workers always have a choice. Workers have the choice of ultimately refusing the referral to a rehabilitation program. However in these cases, it is highly likely that they will lose their wages and income replacement benefits. In spite of these consequences, some may choose this option. The key issue of SDM in such situations will be deciding whether or not to participate in the work rehabilitation program, based on a thorough evaluation of all options. In sum, in work rehabilitation, neither the type of decisions, nor the available options can be predetermined and thus they cannot be presented in a decisional aid for work rehabilitation; they have to be adapted to each case.

Third, we found that we needed to adapt the wording of Objective 5. The initial wording was “make the decision explicit.” For the insurers, the word “explicit” referred to regulations and implied little room for change. In the SDM field, this objective means stating that a decision has to be made or deferred to ensure that the worker clearly understands that he or she can have a say in the decision during the SDM meeting or at another identified moment if he or she is not ready at that time [24]. To prevent communication difficulties, it was decided to change the term “explicit” to “clear.” Our findings therefore highlight how one term can have different meanings in different contexts. Assessing the model’s acceptability with all relevant stakeholders thus proved useful in preventing misunderstandings.

A few participants suggested combining objectives 6, 7, and 8, or objectives 3 and 6. For research purposes, these suggestions were not retained, as they came from a minority of participants and each objective was deemed essential by all stakeholders (including workers). From a program evaluation perspective, combining the objectives into one would

have had the disadvantage of complicating the process of measuring the objective and further identifying core sets of objectives. From a knowledge translation perspective, the suggestion may highlight a need to elaborate, in the future and in plain language, what the full SDM process entails in rehabilitation. This would also support the longitudinal objective of creating a common understanding among stakeholders, thereby achieving more than simply combining a limited number of specific objectives.

A minority of participants suggested adding a therapeutic contract to Objective 9. While a very interesting suggestion, the discussions revealed that the interpretation of a therapeutic contract varied from one stakeholder to another, with its scope sometimes going so far as to include sanctions for non-compliance. Sanctions, however, run counter to the SDM approach. The decision not to include a therapeutic contract was thus based on SDM values and on the fact that it was formulated as a suggestion (“as nice to have”), but not as essential to the model’s acceptability.

Aside from the adaptations made to the SDM model, the results of this study led us to make the following three more general observations. First, by documenting the perspectives of the various key stakeholders, we obtained an overview that clarified the decision-making process and its potential pitfalls in work rehabilitation. For example, gaps were noted among stakeholders in terms of the significance they placed on certain recommendations (therapeutic contract or making the decisions explicit). By taking into account the differing views of the significance of the recommendations and of the possible negative impacts, primarily on the worker, we were able to make more informed decisions about the modifications needed to our SDM model. To date, few studies in work disability prevention or in SDM have prospectively involved all key stakeholders in the development or implementation of the SDM process [25, 26], notwithstanding the fact that including all stakeholders is one of the key recommendations for SDM implementation [26].

Second, the parties involved in work disability prevention act in varying contexts and with varying stakeholders. This diversity means that, on top of the dyadic relationship with the worker, an HCP has to verify stakeholders’ expectations (e.g. when should I contact you?) and follow specific guidelines. Hence, even though the model is very detailed, it also has to be relatively generic to allow for the follow-up with stakeholders to be tailored, and the decisions and options to be discussed. This characteristic makes the model easily adaptable to other work disabilities or to different jurisdictions, with only minor changes.

Third, to our knowledge, this is the first SDM model following the principles of theory-driven evaluation [27] in the SDM field. Only one study protocol was found in the literature on the development of an SDM program theory [28]. The evaluative research field proposes pluralistic methods

that are equally suitable [27]. However, core principles have to be taken into consideration. Developing a plausible model means that it has to be formulated on the basis of existing theories and research, and on stakeholders' perspectives [27]. Our initial SDM model was based on both theories and research and was then adapted by expert clinicians who were knowledgeable about other stakeholders' constraints [6]. This may also partly explain why so few changes were made to the SDM model. Another added-value of our SDM model is that few studies in the literature detail the decision implementation phase of SDM, which requires a commitment over time. Our SDM model provides indicators and tools for implementing the chosen option. Moreover, consultations with the stakeholders revealed their keen interest in implementing the chosen option. Inclusion of the stakeholders working in work disability thus makes it possible to identify their needs. From an implementation perspective, it is essential to meet the needs of the stakeholders involved [29].

Strengths and Limitations

The method used allowed us to document various stakeholder perspectives, needs and contexts, but also their interactions and possible impacts. In turn, we were able to make minor modifications to our SDM rehabilitation model. These should have a major impact on the model's implementation in real practice. The next step will be to assess the extent of implementation (difference between what is expected in the model and what is achieved) and the impact of the context to assess whether other modifications are necessary before assessing the model's efficacy. This should limit Type III errors, which include evaluating and reaching conclusions about the efficacy of a program or intervention that has not been successfully implemented [30].

The quality of the information gathered via focus groups or interviews depends on the representativeness and credibility of the participants. We therefore sought diverse sources of information represented by a variety of stakeholders, which contributed to the wealth of data obtained. Given the many different insurance systems and employers, the number of participants representing these stakeholders was high compared to the number of workers. The risk of any one opinion outweighing any other was reduced by the use of thematic analysis. However, while some degree of redundancy was observed in the workers' interviews, the small number of workers may be considered a limitation. The stakeholder survey was designed to limit the respondents' burden. The survey included a limited number of statements assessing all objectives simultaneously in terms of their necessity and sufficiency for SDM in work rehabilitation, as well as their clarity and feasibility. Lastly, it included a few statements assessing all the activities in the model in terms of their necessity and sufficiency. Thus, since there

are 11 specific objectives in our SDM model, as soon as a stakeholder wanted to propose a modification, he or she had to answer "do not agree." This might have created a discrepancy between quantitative agreement scores and actual comments in groups. We did not return to participants for their comments or to validate our analyses. However, during the discussions (focus groups or individual interviews), the facilitators regularly summarized the content in order to clarify any possible misunderstandings.

Conclusion

In this study, a newly proposed SDM model was adapted for work rehabilitation to make it acceptable and feasible to stakeholders. This was deemed essential prior to implementation of the SDM model in this specific context. The next steps will be to assess the feasibility of implementation in real rehabilitation settings and how context impacts its level of implementation.

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Compliance with Ethical Standards

Conflict of interest None of the authors have any conflicts of interest to declare.

Ethical Approval All procedures followed were in accordance with the ethical standards of the committee responsible for experiments on human subjects (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000.

Informed Consent Informed consent for inclusion in the study was obtained from all patients.

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