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Obstacles and Factors Facilitating Return to Work of Workers with Musculoskeletal Disorders: Summary of the Report on the Quebec Qualitative Study in the Electric and Electronic Sector of Workready Phase 1

*Susan Stock, Suzanne Deguire,
Raymond Baril, Marie-José Durand
December 1999*

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*Garder notre
monde en santé*

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**OBSTACLES AND FACTORS FACILITATING RETURN TO WORK OF WORKERS
WITH MUSCULOSKELETAL DISORDERS:
SUMMARY OF THE REPORT ON THE QUEBEC QUALITATIVE STUDY IN THE
ELECTRIC AND ELECTRONIC SECTOR OF WORKREADY PHASE 1**

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December 1999

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This document is a summary of the full report of the project. The full report is available in French from the Montreal Department of Public Health. An order form can be found on the last page of this document.

1. BACKGROUND

Numerous scientific studies have shown that many workplaces, including those in the electrical and electronics sector, have significant numbers of workers who develop musculoskeletal disorders such as back or neck pain, tendinitis of the shoulder or wrist, carpal tunnel syndrome, etc. The economic and human costs associated with these disorders are often quite high. Thus, many companies are seeking strategies to more effectively manage cases of work-related musculoskeletal disorders (WRMD) and numerous approaches to dealing with these problems have emerged. There is very little information available about the nature of the various return to work programs that are currently being implemented, about their impact on the work environment or the health of employees nor about the interaction between these programs and existing health services for workers treated for these musculoskeletal disorders. Our research team, therefore, felt it would be useful to better understand how this problem is being addressed in various workplaces in order to eventually develop tools that might assist workplace stakeholders meet their needs in this area and facilitate return to work of workers with musculoskeletal problems.

This Quebec research study is part of a larger Canadian project, called «Workready», that includes researchers from Quebec, Ontario and Manitoba and is funded by HEALNet (the Health Evidence Application and Linkage Network), a national Centre of Excellence funded by the federal government. The **main objectives** of the Quebec component of this project were: to gain a better understanding of how workplaces manage workers with musculoskeletal disorders; to identify what type of solutions have been found to promote the return to regular work of the workers who develop these problems; and to identify the factors that may facilitate or impede the implementation of these solutions.

2. METHODS

Interviews were carried out in ten (10) electric and electronic companies located on the island of Montreal. In each company between two and seven people were interviewed, representing the various stakeholders concerned with WRMD (e.g. human resources and health and safety managers, medical services personnel, supervisors, union representatives, workers who had had musculoskeletal disorders and participated in a return to work program). As well, two members of the CSST (Quebec Workers' Compensation Board) from the Montreal regional office that covers companies in the electric and electronic sector were interviewed. Each interview was recorded on cassette and the complete interview was transcribed. Four members of the research team (including a physician, a sociologist, an anthropologist, and an occupational therapist) analysed the transcripts of the 36 individuals interviewed. They identified major themes and sub-themes that emerged in the interviews and noted important points made by the various types of stakeholders. The content analysis of the interviews permitted the researchers to identify perceptions of each of the stakeholders and to note similarities and differences among the companies. The goal of the project was to provide an overview of the range of experiences of these companies rather than a portrait of each specific company.

3. RESULTS

3.1 Description of the participating companies and their measures for managing workers with WRMD

The companies that participated in the interviews are manufacturers of electric and/or electronic products in the domains of transportation, aerospace, communication, or household appliances or electricity companies.

Among the 10 companies interviewed, six are unionised. Each of the 10 companies has a bipartite health and safety committee with one or more worker representatives and one or more employer representatives. Musculoskeletal injuries occur in each of the companies in our sample, but their numbers vary. The most common musculoskeletal disorders encountered are back pain and disorders of the neck, shoulders, elbows and wrists.

The management of WRMD is quite complex due, in part, to the large number of stakeholders involved. (See Table 1.) Their respective roles are sometimes quite different, in other cases, quite complementary; their respective objectives are sometimes quite similar, other times quite distinct. (See Figure 1.) This complexity sometimes prevents managers who develop return to work programs from fully recognising the impact of these programs on the other stakeholders involved. Such problems are much less likely when there is good communication among the various actors/stakeholders.

Three main types of interventions for managing workers with WRMD, directly or indirectly, were identified. These include: (1) **administrative, medical and/or legal follow-up**; (2) **modified work programs** (including temporary re-assignments, modification of the existing regular job) and (3) **prevention programs**. Some companies regularly follow workers who are receiving compensation benefits through, for example, weekly telephone or in-person meetings. The medical follow up permits managers of these programs to seek information about the worker's health status and its evolution and the nature of the treatments prescribed. Most of the companies interviewed also include a legal component to the management of WRMD that permits the appeal of some of the compensation claims for WRMD. (see Figure 2).

3.2 Factors that facilitate or limit the implementation of modified work programs for workers with WRMD

Often the presence of a particular factor facilitates return to work (RTW) while the absence of the same factor is an obstacle to successful RTW. With other factors, their presence is helpful but their absence does not necessarily provide a barrier to successful RTW. One of the most frequently mentioned conditions that facilitates successful management of workers with WRMD is effective **communication, collaboration and trust** among the various stakeholders involved, including internal as well as external stakeholders such as treating physicians or CSST rehabilitation counsellors.

3.2.1 Communication between the companies and treating physicians

The information obtained during the interviews indicates that many companies have difficulty communicating with the treating physicians of injured workers. Some of those interviewed described, treating physicians as sometimes not receptive to contact with the workplace. Some treating physicians were perceived as not sharing the employer's objectives or not understanding the approach to managing WRMD taken by the company. The approach taken by some treating physicians to achieve their objective of promoting the recovery of their patient and/or prevent recurrences or exacerbations may not always further the employers' concern with reducing compensation costs and eliminating or reducing the length of work absence. Several workplace managers and health care professionals have the impression that some physicians are not fully informed about WRMD or are not knowledgeable about the workplace. Such physicians may, therefore, provide imprecise diagnoses, ineffective or unduly lengthy treatments, and vague or inappropriate physical restrictions to their patients. The treating physician's knowledge may also determine the appropriateness of prescribed work absence and its duration. Similarly a lack of understanding of the workplace may affect the capacity of the physician to judge the physical demands of a given job and, the capacity of an injured worker to carry out this job.

Workplace managers of injured workers often seek the opinion of outside specialists or private industrial medicine consultants to verify the information provided by treating physicians concerning diagnosis, date of return to work and the relationship between the injury and the workplace. Frequently there are significant differences between the opinions of the external consultants and those of the treating physicians. The consultation reports of these external industrial medicine consultants chosen by the employer are perceived as quite useful in the management of injured workers, and particularly so in the case of appeals of compensation claims.

Several companies have tried a number of **strategies to facilitate communication** with treating physicians. Examples of such strategies include:

- **telephone contact** with the treating physician (not always very easy) **to inform him or her about** the nature of the available jobs in the company **possible «temporary re-assignments»**;
- having the injured worker provide the treating physician with **a form** from the employer seeking the necessary **information for administrative and medical follow-up** and/or indicating possible jobs for **temporary re-assignment**;
- **identification and request for simultaneous approval of 2 or 3 possible jobs** for temporary re-assignment. This avoids potential delays associated with temporary re-assignments and provides some flexibility with respect to re-assignments.
- having the injured worker give the treating physician **a copy of the industrial medicine consultant's or specialist's consultation report**.

Figure 3 identifies factors facilitating the participation of treating physicians and the potential benefits of their participation.

3.2.2 Supervisors and the management of WRMD

Although the primary mandate of supervisors is to respond to production demands, frequently they are given a number of other responsibilities including health and safety functions. In particular, it is often left to the supervisor to find temporary re-assignments or other modified work for injured workers. Unfortunately, these responsibilities are added without prior planning and consultation with supervisors concerning the implications of these added functions on their workload and production responsibilities. Moreover, in some companies the organisational structure may discourage communication between the Production Division and the Division of Human Resources personnel who manage Health and Safety or Return to Work programs. **Frequently, supervisors experience considerable role conflict between their production responsibilities and the demands of the temporary-assignment program.** In this situation, supervisors experience their role in the management of WRMD as an added, and often unwanted, burden. Moreover, supervisors may not have a good understanding of WRMD and ergonomic principles that should be considered when selecting modified work for injured workers. This

lack of knowledge, in addition to organisational obstacles and heavy production demands, may explain why some supervisors do not always respect the physical restrictions prescribed by injured workers' doctors. The lack of time, to carry out all their responsibilities and/or the means or knowledge to do so, and the role conflict described above are all elements that may contribute to the resistance of some supervisors to fully collaborate with modified work programs. Supervisors are more likely to collaborate when their difficulties and needs are taken into account and their role in modified work programs is rewarded in concrete ways. **The element that seems to be most important is the presence of good integration between production and modified work activities**, i.e. adjustments are made in work organisation to take into account the Return to Work program as well as production demands. The companies that appear to be most successful at managing workers with WRMD are those that have achieved this type of integration. Without such integration the temporary re-assignment programs often run into difficulties.

Several companies have developed a number of strategies to facilitate the role of the supervisor in the management of WRMD. For example:

- **senior management**, particularly the Production Manager, **gives high priority to health and safety and modified work programs**;
- **supervisors' responsibilities concerning temporary re-assignment and health and safety are clearly defined and included in their performance evaluations**;
- **supervisors are included in the conception and implementation of modified work measures** and in health and safety committees that follow up on preventive recommendations for modifying job tasks or workstations;
- **other workplace actors**, such as nurses, health and safety personnel, workers' representatives and/or injured workers themselves **participate in the selection of jobs for temporary re-assignment** so that supervisors do not have to carry out this responsibility solely on their own;
- a **data bank of jobs for temporary re-assignment** is created based on ergonomic principles and the site of injury to facilitate the identification of appropriate modified work by the supervisor;

- **supervisors are provided training about WRMD, basic ergonomic principles and the principles of modified work.** Such training may increase the likelihood that supervisors respect the physical restrictions injured workers have been prescribed and increase their ability to modify existing jobs so an injured worker can remain on their regular job;
- **production quotas** measured in person-hours **are modified to take into account injured workers** who are not 100% productive;
- temporary re-assignments of workers to **supernumerary positions**, where they are considered supplementary workers and are not included in the calculation of productivity in person-hours;
- **where feasible, attribution of compensation** (and health and safety) **costs to the production department** that generated the injury costs, allowing supervisors to take into account and take credit for the savings associated with temporary re-assignments (or ergonomic improvements of work stations or job design).

Figure 4 summarizes the factors facilitating the participation of supervisors and the potential benefits of their participation.

3.2.3 The role of workers in the management of WRMD

Injured workers with musculoskeletal disorders are the principal actors affected by return to work interventions. The success of such interventions is dependent, in part, on their collaboration. Such collaboration, in turn, seems to be a function of good labour relations, i.e., harmonious relationships among workers, employers and the union. Several of those interviewed told us that the presence of an active program for the prevention of WRMD with accompanying ergonomic improvements of work stations or job design demonstrated to workers that the employer was concerned with their health and welfare. It appears that **injured workers are more likely to collaborate with return to work programs when they have the impression that the employer is willing to provide early support and that administrative and medical follow up reflects a genuine concern with their health and welfare rather than a single-minded preoccupation with cost control.** It was also suggested that some workers are willing to endure pain for longer periods of time without filing compensation claims when they perceive that the

company intends to modify jobs and eliminate physical hazards believed by them to be the source of their pain.

Other factors more specific to temporary re-assignment measures that foster the collaboration of injured workers include: the **respect of their physical restrictions** by the supervisor; the temporary re-assignment **to a job perceived** by the injured worker **as useful and productive**; the choice of **temporary re-assignment based on ergonomic criteria** and the nature of the disorder; the temporary re-assignment of workers **to a job in the same department** (maintenance of the same co-workers and work environment). Figure 5 summarizes the factors that facilitate the participation of injured workers.

3.2.4 Worker representatives and the management of WRMD

The participation and collaboration of worker representatives may have a positive effect on the success of early return to work measures. One of the most difficult problems to resolve when choosing modified work for injured workers relates to seniority. Some collective agreements give workers with higher seniority priority access to less physically demanding jobs. For some unions this is seen as a necessary accommodation for ageing workers but is experienced by some managers as a difficult obstacle to the accommodation of injured workers.

3.2.5 The integration of health and safety prevention programs and return to work programs

There appear to be numerous ways of integrating RTW programs with prevention activities. Some of the examples described in the interviews include:

- **the production manager puts a high priority on health and safety prevention and perceives a relationship between physical and organisational work demands and musculoskeletal disorders;**
- **the manager responsible for health and safety prevention is mandated**, not only to reduce the number of work injuries but also **to prevent long-term disability** and does so by modifying physical demands of higher risk jobs, implementing temporary re-assignment, etc.;

- during the injury investigation, those involved will seek to identify **physical or organisational demands that may have contributed to the musculoskeletal disorder and, if appropriate, will make recommendations about modifying the injured worker's job so that he or she can return to their regular job without re-injury or to prevent similar injuries in others doing the same job;**
- **temporary re-assignments are based on the appropriateness of the tasks to the injured worker** given the physical restrictions associated with their disorder and an analysis of the demands of these tasks;
- the same individuals that are involved in activities for the prevention of WRMD are involved in the implementation of the temporary re-assignment program;
- **the health and safety committee participates in the evaluation of cases of WRMD** to identify work-related factors that may have contributed to the disorder and recommend corrective measures if needed;
- **training about ergonomic principles and musculoskeletal disorders is provided to all those involved in the management of workers with WRMD including,** for example, supervisors, human resources managers, engineers, company physicians, nurses, supply buyers, the manager of production, and/or health and safety committee members.

Such integration seems to facilitate the management of WRMD and may lead to a reduction of new cases of WRMD or recurrences and, consequently, a reduction of compensation costs. Moreover, this integration seems to have an important impact on productivity and motivation of workers because they perceive the employer as genuinely concerned with their health and welfare.

3.2.6 Appeals of workers' compensation cases

The appeal of compensation cases is a management tool whose utilisation in the companies interviewed ranges from systematic appeals of almost all compensation cases for musculoskeletal disorders to no appeals at all. There is, thus, enormous variability among the companies studied. There appear to be two major types of consequences that may result from frequent appeals, one more desirable than the second. For some companies, the appeals process is an important tool to

reduce compensation costs and to prevent «an epidemic» of musculoskeletal «repetitive strain» claims. Unfortunately, this approach may have a negative impact on labour relations. Union representatives may perceive the employer as lacking respect for the experience of injured workers. Workers who believe they have a genuine work-related musculoskeletal disorder and file a compensation claim that is then appealed by the employer may feel that the employer does not believe them. They may then be less apt to collaborate with temporary re-assignments or other rehabilitation efforts at early return to work. Managers from two different companies noted that their companies are appealing fewer musculoskeletal cases since they began instituting a temporary re-assignment program and have achieved considerable cost savings with these temporary re-assignments due to a large decrease in the number of compensated days off work.

3.2.7 The importance of corporate culture in the success of the management of WRMD

Another theme that emerged in the interviews was the important influence of upper management on the success of interventions for managing workers with musculoskeletal disorders. When **upper management puts a high priority on health and safety** and supports early return to work programs as well as prevention activities, it appears to create a dynamic that promotes the success of these programs. Similarly, when upper management fosters a **participatory management style** it appears to also promote the success of RTW interventions. A participatory management style, for example, may allow supervisors and/or workers to participate in the planning and implementation of return to work programs and seems to facilitate greater communication and collaboration among the various actors involved. These elements allow better integration between return to work measures for workers with musculoskeletal disorders and production and better co-ordination between these RTW measures and health and safety prevention activities.

4. CONCLUSION

The results of this study demonstrate that almost all the electric and electronic companies interviewed have implemented some type of modified work measures to facilitate the return to work or maintenance at work of workers with musculoskeletal problems. These measures are provided not only to those receiving workers' compensation, but also, increasingly, to symptomatic workers who have not made workers' compensation claims. This is done presumably to prevent expensive claims and potentially lengthy absences. In recent years, quite a few of the companies interviewed have reduced their workers' compensation costs dramatically by implementing modified work programs, ergonomic prevention programs and/or frequent and rapid appeals of workers' compensation claims.

This study highlights the complexity of implementing workplace modified work and return to work programs and the tremendous importance of good communication and collaboration among the numerous and diverse actors who play a role in such programs. Although there are substantive differences in the approach and forms of return to work measures taken between different companies, a number of common themes emerged during the interviews.

Many of those interviewed described considerable difficulties communicating with the treating physicians of injured workers and expressed frustration with the approach to medical management of these workers, the duration of work absences approved by the physicians, and the inconsistency in the criteria applied by physicians to approve temporary re-assignments proposed by the employer during recovery from an injury. These results are quite similar to the findings of Baril and Berthelette (in press) who conducted an evaluative survey of 16 Quebec companies in four other industrial sectors and to the qualitative findings of our Workready research colleagues in Ontario and Manitoba («Workready Collaborative Group», 1999) who carried out analogous interviews in a wide range of industrial and health care settings. While this project focused on perceptions of those in the workplace, it is readily apparent that this widespread problem warrants further study that includes the point of view of the treating physician.

Another obstacle to effective implementation of temporary re-assignment measures concerns the role of supervisors in the return to work process. Supervisors face a particularly difficult conflict of roles between their production responsibilities and the responsibilities imposed upon them to find temporary jobs that injured workers can carry out during their recovery. This study highlighted the lack of incentives and the numerous disincentives to their participation in return to work measures. Moreover, modified work assignments that reintegrate injured workers into production jobs can increase demands on co-workers and lead to negative reactions on their part towards the injured worker. This, too, can increase the complexity of the decision-making faced by supervisors who must adjust manpower needs to meet production demands. The role conflict experienced by supervisors also emerged in the studies by Baril and Berthelette mentioned above and by our Workready colleagues in Ontario and Manitoba. Although some companies in our study have found interesting and creative solutions to this problem, quite a few others continue to find this issue a thorny one that is difficult for them to resolve.

Strategies that helped integrate production activities and return to work measures described in the report were found to be major facilitating factors. Similarly, integration of return to work programs and health and safety prevention activities were also found to facilitate the implementation of modified work measures. Thus, companies that carry out an administrative follow up of work injuries that includes an investigation of the physical and organisational factors that may have contributed to the injury and the identification and effective implementation of corrective measures, appear to be more successful at return to work of workers with musculoskeletal problems. Such integration allows them to modify problematic jobs and return injured workers to their regular job without a lengthy temporary re-assignment. This approach may also prevent similar injuries among other workers carrying out the same jobs.

Another theme that came to light in the interviews concerns the factors that influence the collaboration of injured workers in early return to work programs. A number of human resources managers and company medical services health care professionals tended to attribute the resistance of some workers to early return to work programs to personal characteristics of the workers or their attitudes and beliefs. But interviews with health and safety managers,

supervisors, employee representatives and with injured workers themselves, suggest that a number of organisational factors may also be very important determinants of their participation. In workplaces with extensive participatory ergonomic programs that identify and implement solutions to problems raised by workers, workers and their representatives tend to perceive the employer as sincerely interested in their health and well-being. In such a context, employees seem to be less likely to initiate workers' compensation claims and more likely to willingly cooperate with early return to work measures. Conversely, when there are frequent appeals of workers' compensation claims, employees and/or their representatives are more sceptical about the employers' concern for their health and more suspicious of the employer's motives for implementing health and safety preventive measures or measures to encourage early return to work.

Another important determinant of the injured workers' participation is the nature of work tasks assigned as modified work tasks and the effort expended to identify appropriate job tasks. Workers are more likely to cooperate with modified work proposals when the job demands of proposed tasks respect ergonomic principles and are concordant with their functional capacities, given the nature of their injury, and when their opinion about their capacity to do the work is taken into account. Conversely, workers are more likely to resist modified work programs when little planning is given to job assignments and workers perceive the tasks assigned as unproductive or meaningless.

This study constitutes the first phase of this research project on managing workers with musculoskeletal disorders in the electric and electronic sector. Based on these results, we believe, it may be useful to collaborate with employers and workers in this sector to create «tools» and strategies that would facilitate decision-making concerning WRMD. Specific solutions to the obstacles identified in this study may vary from one company to another due, in part, to differences in their size, organisational structure and culture and/or the type of production carried out. Nonetheless, the reference points for decision-making are similar. It may, therefore, be possible to develop a series of tools to facilitate decision-making by the major actors that could be adapted by each company according to their individual needs. Such tools would be

specifically tailored in content and format to each type of stakeholder (e.g. upper management, managers of RTW and health and safety programs, supervisors, workers and their representatives, treating physicians). The next step for our researcher team will be to explore the priorities and specific needs of the various stakeholders for such tools with the industry's bipartite health and safety association and representatives of interested employers and worker representatives.

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TABLE AND DIAGRAMS

Table 1 : Actors in the management of workers with work-related musculoskeletal disorders.

Figure 1 : Objectives of modified work and return to work programs

Figure 2 : Relationship between objectives, interventions and factors facilitating return to work (RTW).

Figure 3 : Factors facilitating the participation of treating physicians in the return to work process and the potential benefits of their participation.

Figure 4 : Factors facilitating the participation of supervisors in the return to work process and the potential benefits of their participation.

Figure 5 : Factors facilitating the participation of workers in return to work.

Table 1 : Actors in the management of workers with work-related musculoskeletal disorders

➤ **Internal to the company:**

- Senior management
- Managers : human resources; health and safety (H&S)
- Company health service (MD, RN)
- Directors of Production or Operations
- Supervisors
- Health & safety committees
- Union reps
- Injured workers
- Co-workers

➤ **External to the company:**

- WCB (CSST): claims assessors, rehabilitation, counsellors, inspectors
- Treating physician
- External medical consultants
- Lawyers
- Ergonomists
- IRSST research projects
- CLSC (public health OH teams)
- Sectorial H&S association (ASP)
- Employers' health and safety centre

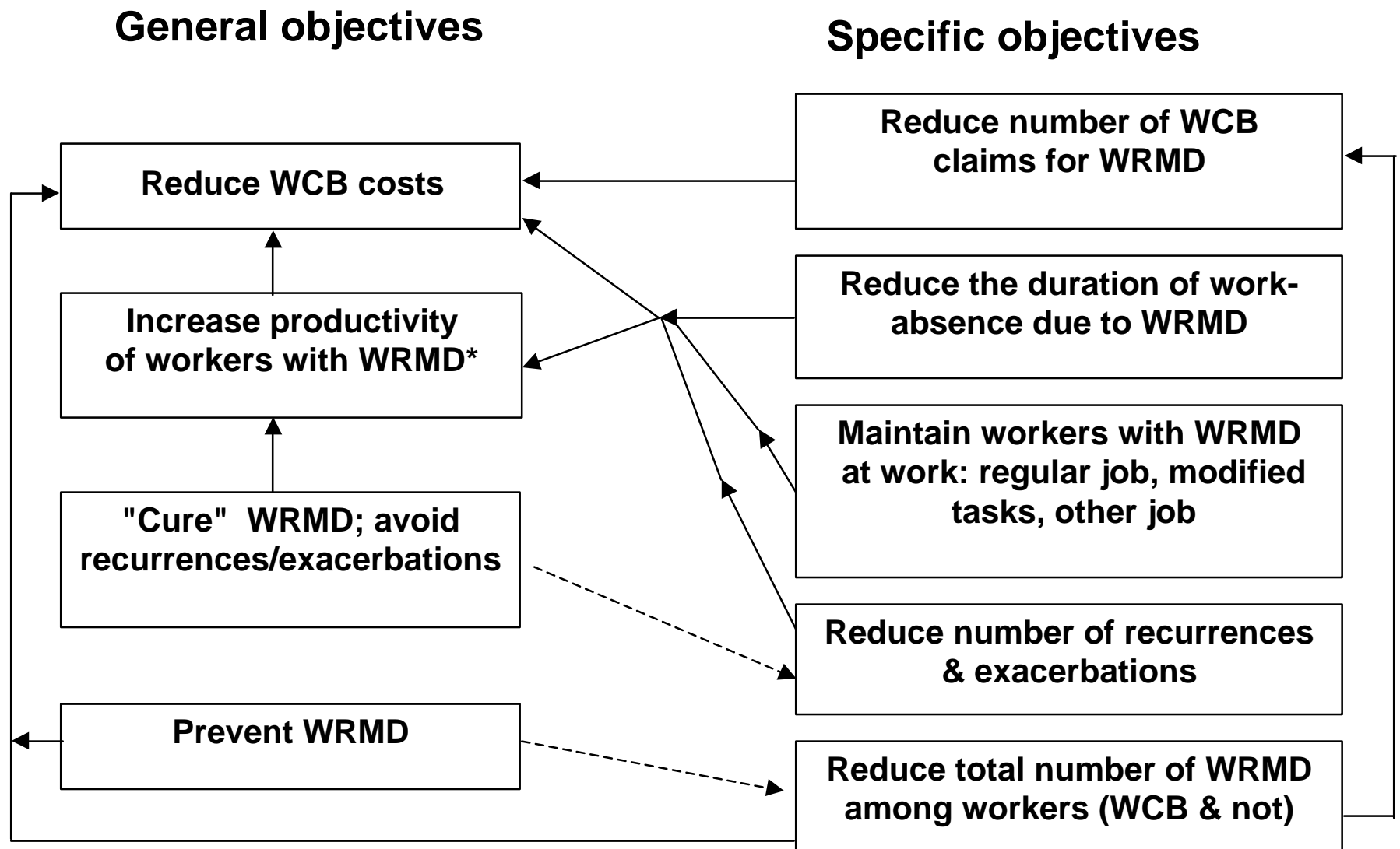
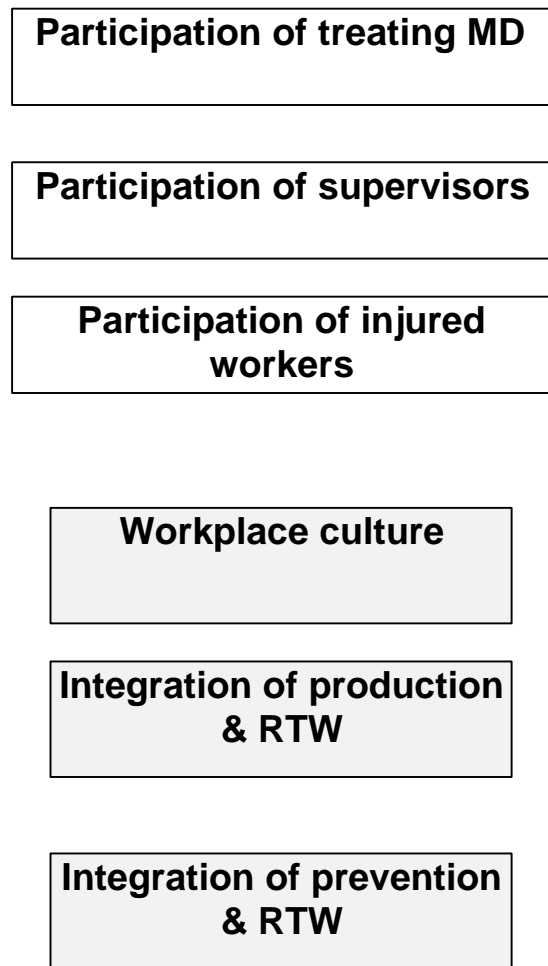


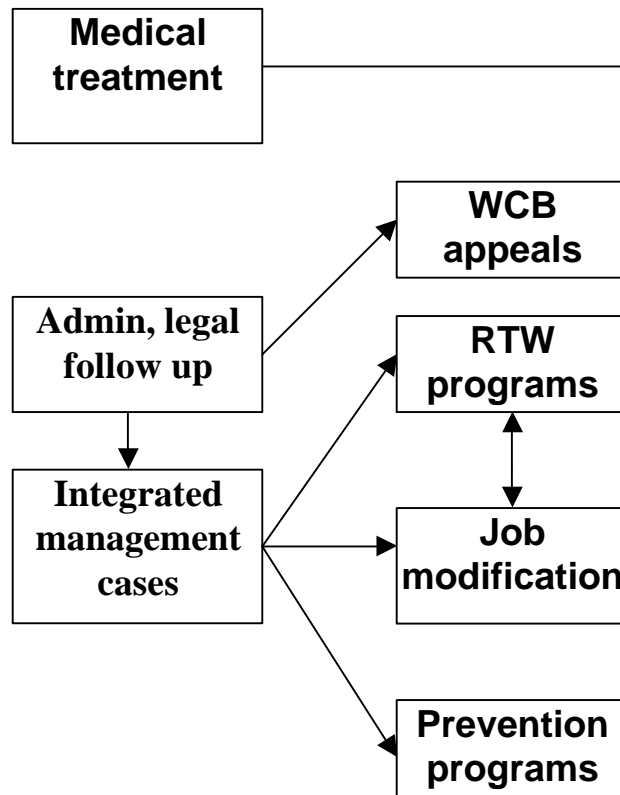
Figure 1 : Objectives of modified work and return to work program

* WRMD= Work-related musculoskeletal disorders.

Facilitating Factors



Interventions



Objectives

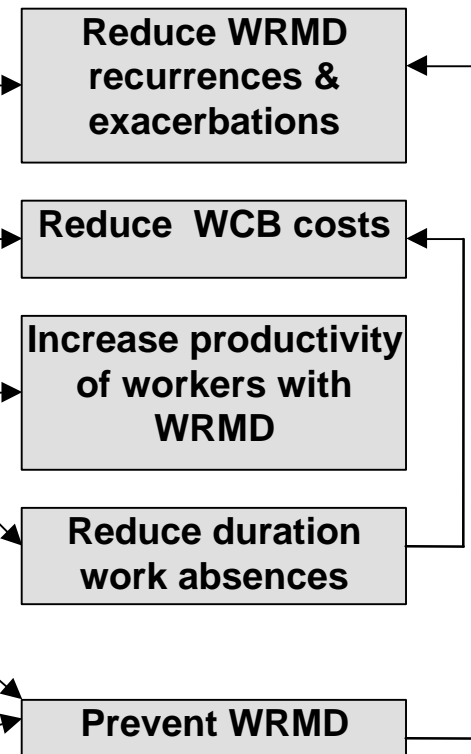


FIGURE 2: RELATIONSHIP BETWEEN OBJECTIVES, INTERVENTIONS AND FACTORS FACILITATING RETURN TO WORK (RTW)

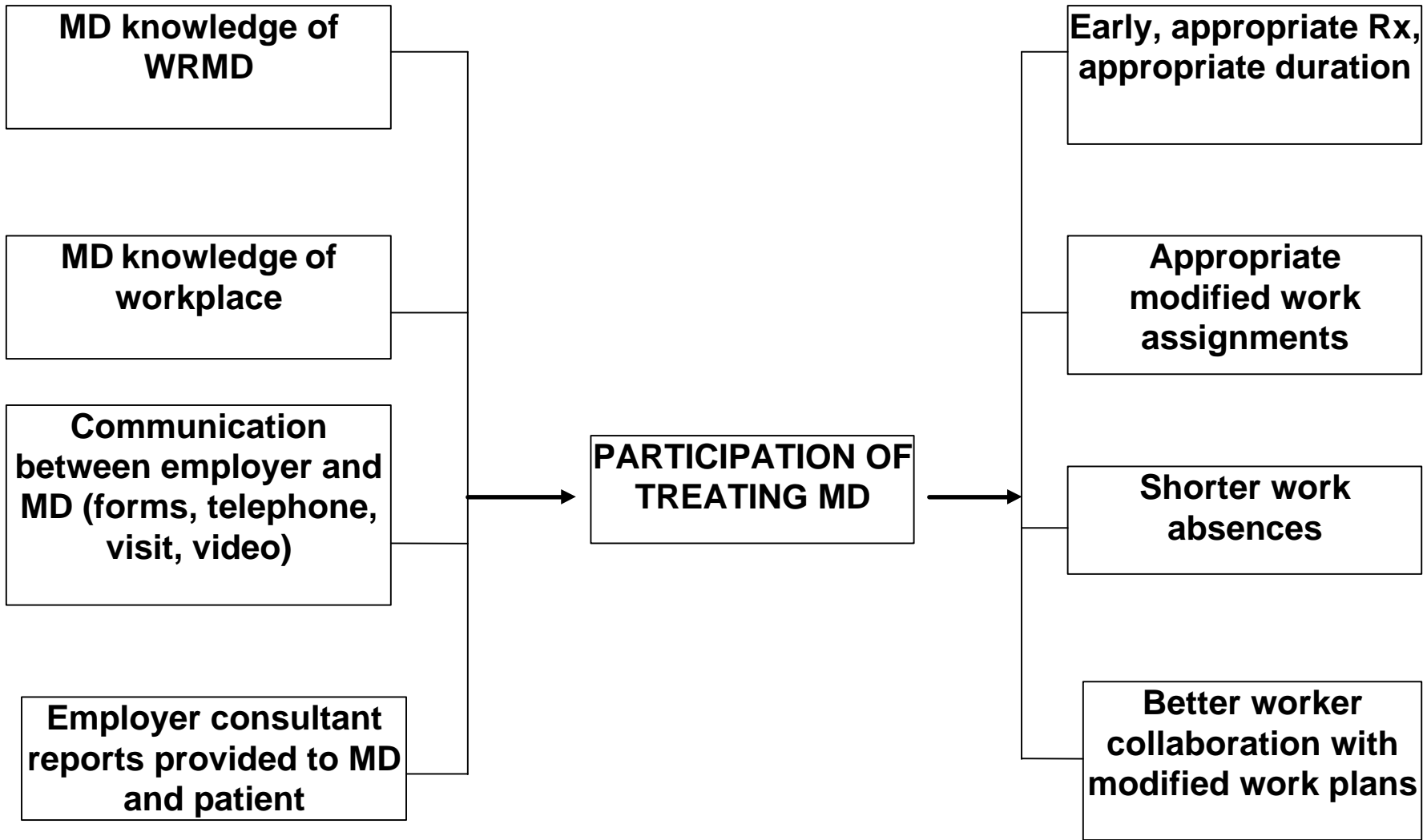


Figure 3: Factors facilitating the participation of treating physicians in the return to work (RTW) process and the potential benefits of their participation

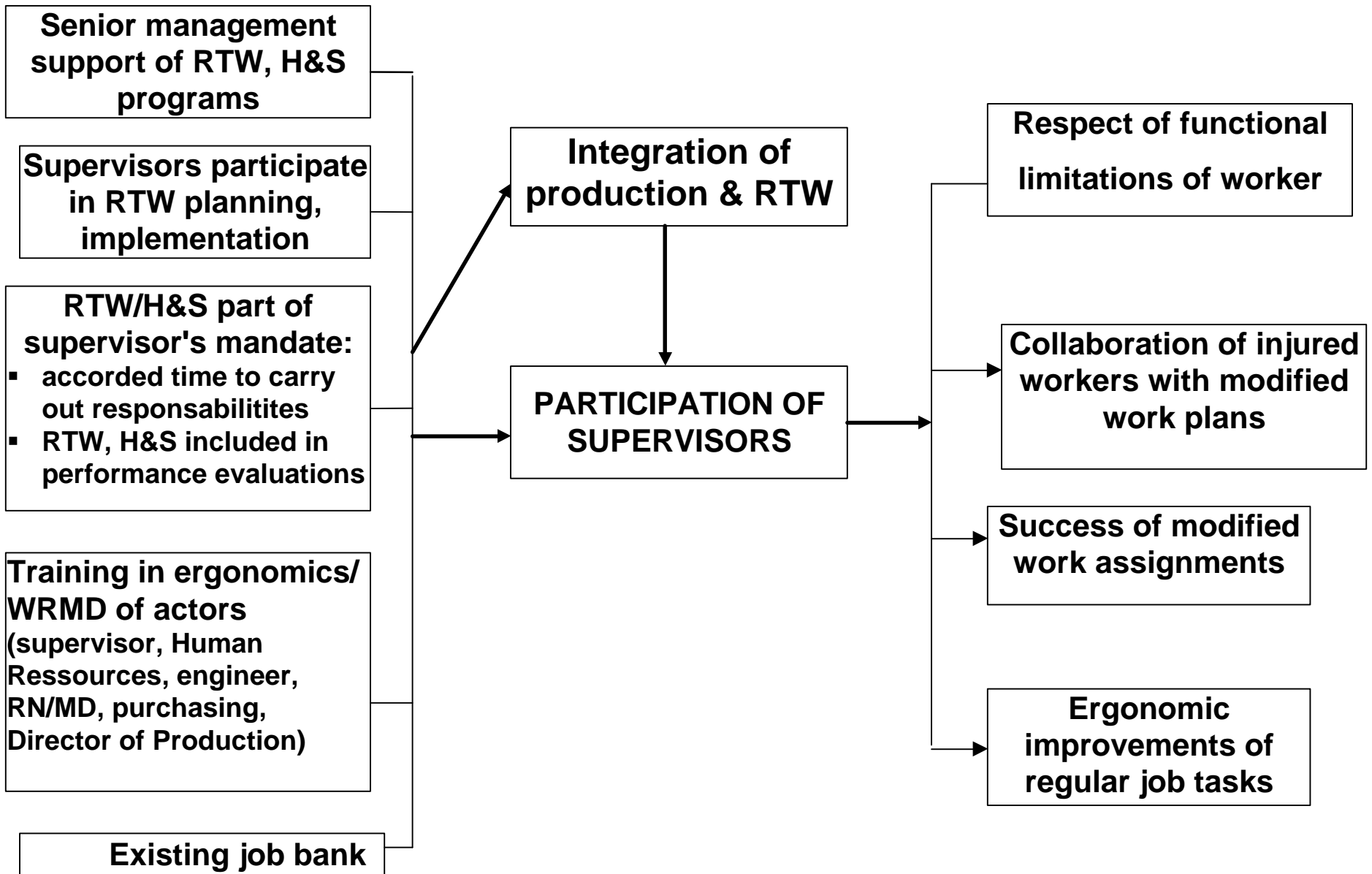


Figure 4: Factors facilitating the participation of supervisors in the return to work (RTW) process and the potential benefits of their participation

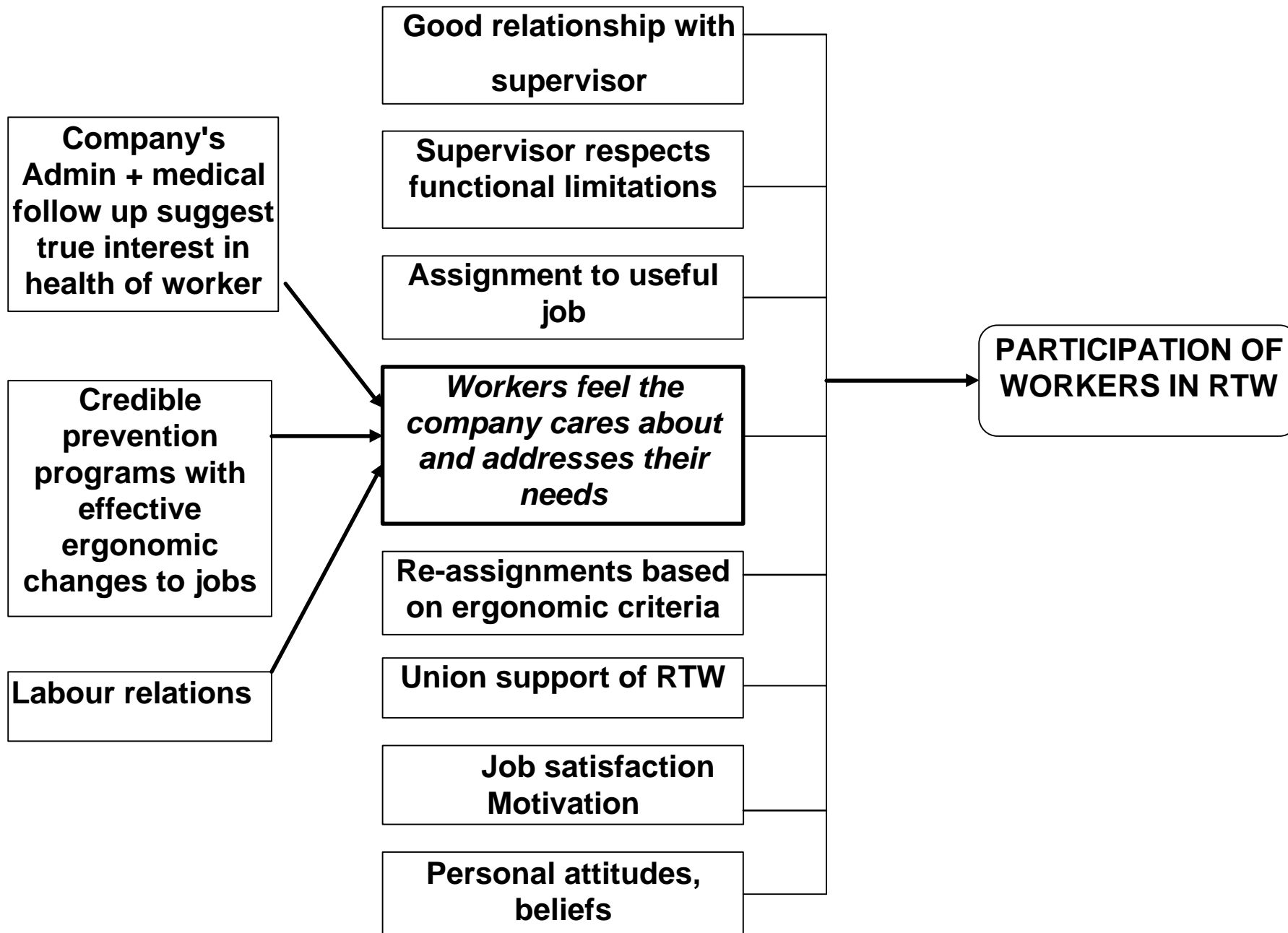


Figure 5: Factors facilitating the participation of workers in return to work (RTW)