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Applying Theories to Better Understand Socio-Political Challenges in Implementing Evidence-Based Work Disability Prevention Strategies

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Abstract

Purpose: This article explores and applies theories for analyzing socio-political aspects of implementation of work disability prevention strategies.

Method: For the analysis**,** theories from political science are explained and discussed in relation to case examples from three jurisdictions (Sweden, Brazil and Québec).

Results: Implementation of WDP strategies may be studied through a conceptual framework that targets: 1) the institutional system in which policy-makers and other stakeholders reside; 2) the ambiguity and conflicts regarding what to do and how to do it; 3) the bounded rationality, path dependency and social systems of different stakeholders; and 4) coalitions formed by different stakeholders and power relations between them. In the case examples, the design of social insurance systems, the access and infrastructure of healthcare systems, labor market policies, employers' level of responsibility, the regulatory environment, and the general knowledge of WDP issues among stakeholders played different roles in the implementation of policies based on scientific evidence.

Conclusions: Future research may involve participatory approaches focusing on building coalitions and communities of practice with policy-makers and stakeholders, in order to build trust, facilitate cooperation, and to better promote evidence utilization.

Introduction

Work disability occurs when a worker is unable to stay at work or return to work (RTW) because of an injury or an illness, which may have several socio-economical and health implications both for the individual and for various organizations and governmental institutions (1, 2). Work disability is a complex problem often requiring complex interventions at the individual and workplace levels, guided by national health policies that support the health and safety of workers, as well as by social policies which can assure social justice and social protection of injured or sick workers. Implementation of such interventions will likely depend upon the design of social insurance systems; the access, quality and infrastructure of healthcare systems; the labor market and the economy; the employers' level of responsibility; the regulatory environment of occupational health; the political climate; and the varying cultures and interests of different community groups.

Work Disability Prevention (WDP) is a field of applied research which focuses on the promotion of labour market activity, the rehabilitation of disabled workers, and the extension of working lives. In the last decades, effective interventions and strategies are being designed and tested worldwide [2]. The increasing level of evidence on how to prevent work disability motivates further analysis of knowledge utilization, and clinical research in this field has moved beyond studying effectiveness to address the contextual issues that hinder the utilization of evidence-based interventions, as they are still only sparsely implemented [5]. A recent study identified a total of 106 potential barriers to implementing WDP interventions, attributed to the healthcare, workplace and insurance systems (3). This complexity indicates that research on implementation of WDP interventions must adopt a broad approach in order to account for the different systems involved, and the perspectives of the many stakeholders involved in the RTW process.

With the continuous changes in social and political contexts it is important to have a theoretical understanding of the mechanisms on the socio-political level that may be hindering the implementation of WDP strategies. A theoretical understanding does not limit the explanations to a specific social or political system, but takes a broader perspective on explaining what drives policy development, and how policy and research interact. It may also facilitate an extended process of communication and interaction between researchers and policy-makers.

The aim of this article is to initiate a discussion of relevant socio-political theories and how they can help clarifying and overcoming issues hindering evidence utilization of WDP strategies at the policy level.

Methods

This is a deductive case study where theories identified through a previous critical literature review on the conceptual development of implementation research (4) were applied to three case scenarios. The previous review explored and compared the development within two knowledge domains: health sciences and political sciences. The present study applies concepts and theories from political science that have explanatory value related to socio-political aspects of WDP to analyze three cases related to implementation of WDP strategies on the policy level.

The purpose of using cases is to contextualize the theories in different socio-political contexts, and to initiate a theoretically informed discussion on policy development in WDP. In the cases, different aspects of socio-political contexts are discussed related to issues present in the specific jurisdictions. The cases correspond to the jurisdictions of origin or residence of the authors (Sweden, Brazil and Québec, Canada), which facilitated the discussion due to the authors' close familiarity with the socio-political systems of these jurisdictions. Within each

jurisdiction, examples were chosen strategically for their illustrative potential concerning socio-political influences of evidence utilization and implementation of interventions or policies in WDP, including examples of policy issues on different levels: regarding national policies (Sweden and Brazil) and policy-making on a local level (Québec, Brazil). A brief description of the legal and practical contexts of each system is also presented. From these cases, challenges of implementing preventive strategies in different socio-political scenarios are identified and discussed.

This article does not involve any human participants; therefore, informed consent is not relevant and ethical approval was not required. Informal peer consultation for verification of the information presented was conducted at the authors' discrection.

The Main Evidence to be Considered from WDP Research

Research evidence is often complicated, with inconsistent results and differences in the design and quality of studies. Moreover, evidence evolves and new questions may be raised even after interventions have been shown to be effective. Despite this, a general consensus exists on a number of basic aspects that must be considered in WDP interventions. WDP may refer to primary prevention (to protect and promote health through avoiding injury, sickness and disease) as well as secondary and tertiary levels of prevention (when disease or illness have already occurred leading to sick leave or chronicity). A central aspect of WDP evidence is the need to consider a biopsychosocial model with a stronger focus on preventive strategies at different levels of prevention (5), as work disability to a high degree is a social issue where solutions are found in the social environment rather than with the individual (1). Frank & Cullen (6) describe how occupational health interventions should merge primary and secondary prevention strategies, where interventions must deal with a complex set of risk factors including physical, psychosocial, and work organization factors. Albeit complex and difficult, work disability is an avoidable problem that require well-coordinated actions

spanning over different organizational and interorganizational contexts. It has been shown in many studies that these preventive actions work better when there is a high level of cooperation between stakeholders from the main systems involved (7). This is reflected in the socially oriented case management framework which has been applied and used in WDP practices in different countries (e.g., Canada, Brazil, The Netherlands and Denmark) (1, 8, 9); and in the Commission on Social Determinants of Health (CSDH) framework proposed by the World Health Organization (WHO), which looks into the complexities of macro structures and their impact on health (10). In WDP, intersectorial actions are particularly relevant between healthcare services, compensation systems, and workplaces (8, 9, 11-13). The features of evidence-based WDP interventions have been described in detail in handbooks and systematic reviews (1, 14, 15), of which a brief summary is presented in table 1.

(Table 1 about here)

Theories on Socio-Political Aspects of Implementation

In the literature, several contextual aspects of implementation have been identified, that may be social, economic and/or political (16). Damschroder et al (17) explain implementation as a social activity, where contextual aspects are summarized into an inner setting (the organizational structure, culture, climate, and communication channels) and an outer setting (patient needs and resources; cosmopolitanism, peer pressure, and external policies and incentives). Other aspects identified are inter-organizational networks (e.g. the extent to which other organizations already apply new practices); intentional spread strategies (e.g. quality improvement collaboratives); wider environment; and political directives (e.g. policy “pushes” and external mandates affecting organizations’ predispositions of implementing practices (18). In order to better capture the social aspects of knowledge translation, Estabrooks et al (19) have suggested incorporating organizational theories (e.g. institutional theory) and social theories (e.g. social capital theory, social network analyses and

community of practice theory). However, to analyze evidence utilization at the policy level, theories that specifically target socio-political issues are called for (4). Hence, this section presents theories from the political science field with explanatory value for the relationship between research evidence and policy development.

1. The Ambiguity/Conflict Model

In the ambiguity/conflict model (20), the aim is to identify factors influencing implementation based on whether the implementation object (generally a policy) is perceived as ambiguous, (if the evidence is clear or not); and whether stakeholders have conflicting perceptions of it. Policy conflict exists when stakeholders take different perspectives on a problem, or on means to reach a goal, and the conflict generally increases if the stakes increase. Policy ambiguity refers to either ambiguity of goals, of means, or both. Goal ambiguity leads to misunderstandings and uncertainty, but may also interact with policy conflict: the clearer the goals, the more likely they are to lead to conflict. Ambiguity of means may refer to the roles of different stakeholders in the implementation process, or when policy complexity breeds uncertainty of the tools to use. When there is low conflict and low ambiguity, implementation is primarily an administrative effort and the outcome is most dependent on resources. In situations of high conflict and low ambiguity, implementation is political and outcomes are determined by power relations between stakeholders. If there is low conflict and high ambiguity, implementation is often experimental. In situations of high conflict and high ambiguity, implementation may be primarily symbolic, that is, serving to confirm new goals, re-affirm old goals or emphasizing existing values and principles (20).

In analyses of RTW issues, the ambiguity/conflict model may be used for explaining *what factors will influence an implementation process*, related to the current knowledge of the problem and the power differences between actors.

2. Bounded Rationality, Path Dependency and Social Systems Theory

Policy-makers are restrictive in what information they consider when making decisions, where they tend to use information available to them, in relation to their past experiences, attitudes, ideology, emotions, and the cultural and political context (21). Even in cases where the evidence is clear, the information is filtered through factors that influence the attention of a decision-maker. This *bounded rationality* explains the limits of decision-making, and that what is perceived as "rational" is highly dependent on the social and political context.

Social and political contexts are the result of long histories of institutional development; policy-making is seldom concerned with making radical changes to existing systems (22). The term *path dependency* is used to explain how political activity relates to and builds on the current system (23), which explainins institutional stability, where the basic principles of an established system are unlikely to change.

Also theories on the development of social systems emphasize stability, where every social system (e.g., the healthcare system) strives to reproduce itself by socializing of representatives (24). Social systems are based on communication, where system-specific interpretations of terminology may obscure cooperation. For instance, the term "disability" may be interpreted in terms of disease or impairment in a medical system, while the compensation system may interpret it in terms of inability to engage in gainful activity (25). Social systems incorporate long traditions and habits that may be resistant to change, and that may induce conflict if change is prescribed from proponents of another system.

In analyzing RTW policy, bounded rationality may be used to understand *the rationale for policy-makers' decisions*. Path dependency may be used for explaining *system-related resistance to change*, while social systems theory may be used to explain *professional resistance to change*.

3. The Advocacy Coalition Framework

As institutional structures tend to remain stable, policy needs to be analyzed in a long perspective. The Advocacy Coalition Framework (ACF) has been developed to facilitate such analyses and to explain and deal with "wicked problems", i.e. problems involving substantial goal conflicts, technical disputes and multiple actors (26). The ACF sees policies as the result of interactions between actors engaged in different advocacy coalitions, driven by their desire to promote their beliefs. Researchers are not an exception, but are considered one of many interest groups that want to influence policy and practice. Every political system is made up of several policy sub-systems, in which different advocacy coalitions co-exist (26).

The ACF conceptualizes actors' beliefs on three levels: deep core beliefs (fundamental assumptions and values, e.g. traditional left/right scales); policy core beliefs (generally in line with deep core beliefs, e.g. conservatives preferring market-based policy solutions); and secondary beliefs (having a more narrow scope, e.g. detailed rules and budgets of specific programs). The first two sets of beliefs are normative and highly resistant to change. A distinction is also made between major policy change (changes in core beliefs) and minor policy change (changes in secondary beliefs).

Research may be used to bolster political arguments if being in line with core beliefs, which is why the ACF emphasizes the role of researchers (26). Research may also be used to facilitate policy learning at the secondary belief level through informing the design of new or improved policies (26). The reliability of researchers is perceived to be lower in areas where there are more political conflicts (27), although the relation between conflict and the use of scientific information is still an empirical question (28).

In a RTW setting, the ACF may be used to explain *how political agendas and policies develop over time, and how power relations between stakeholders influence such*

developments. This targets the interactions between stakeholders with varying perceptions that are involved in developing RTW policy and practice.

Case Examples

This section applies concepts derived from the theories described above to specific socio-political contexts. The case examples are of different character, both in order to illustrate a variety of socio-political issues, and because different jurisdictions are experiencing different issues depending on the political and institutional context.

The Swedish Case: Promoting and Contesting Institutional Reform

In Sweden, the social insurance system is based on a state authority (the Swedish Social Insurance Agency, SSIA) administering sickness benefits and being responsible for coordinating the rehabilitation process. The medical rehabilitation is generally performed in local primary healthcare centers or hospitals, while the work-related rehabilitation is the responsibility of the employers. Employers are obliged to provide sick pay for the first 14 days of sick leave, and while the employers' responsibilities for rehabilitation are regulated by law, their practical responsibilities are not very comprehensive.

The Swedish policies on WDP have changed considerably over the last decades. From having had a generous social insurance system with high benefits and no time limits for sickness benefits, the system is now considerably more restrictive: benefit levels are lower, and eligibility criteria for benefits becomes stricter the longer a person is on sick leave (29). The policy changes were implemented after a peak in sickness absence rates in the early 2000's, where both the number of sick-listed and the length of sickness absence spells had increased rapidly (30). Reforms in the system began under a social democratic government by giving the SSIA directives to apply regulations more strictly. This was further developed by a conservative government in 2008, that introduced time limits for sickness benefits. The

reforms by both governments were based on the same assumptions: sickness absence rates were too high, and this could be amended by restricting eligibility to benefits. In this sense, the reforms were not politically conflictual, although generally unpopular. This may be considered a major political reform; while the basic principles of the system remained intact (e.g. general eligibility criteria), the reforms implied a change in core policy beliefs (e.g. the responsibilities of the state vs. responsibilities of the individual) (26).

However, the political debate has been much more harsch that the differences in policies would indicate. This may be explained by attending to the different belief levels identified in the ACF (26). Defending a generous social insurance system is in line with core policy beliefs of social democrats, while secondary beliefs may be more influential under pressing political circumstances. In opposition, social democrats can use a rhetoric that echoes more of their (past) core policy beliefs. After another change in power, the social democrats chose to change some details of the policy changes initiated by the conservatives, while the fundamental aspects of the reforms remain. In the political debate, the "devil shift" (31) is thus clearly visible, where the political parties tend to "demonize" their opponents (the left accusing the right for being inhumane, and the right accusing the left for making people dependent on benefits).

Research has had other explanations for the increase of sick leave rates (primarily problems in psychosocial work environments and an ageing workforce (32)). The reforms may however be seen as loosely informed by research through the focus on a faster RTW process, which may be attributed to studies of economic and health benefits of early RTW (33). The OECD has noted in a report how most countries have developed their disability policies to promote work reintegration and to focus less on generous benefits (34). However, the Swedish reforms were criticized by the OECD for their lack of attention to the workplace system and employer responsibilities (35).

The research influencing the policies is likely to be compatible with social democratic as well as conservative political agendas. The translation of this evidence into policy, however, will differ depending on the political position of the government in office, where the conservatives used this research to argue for restraining access to benefit systems, combined with tax cuts on wages to promote financial incentives for moving from sickness absence to work, while policy actions to promote a multi-stakeholder approach to WDP has not been emphasized.

The Brazilian Case: Getting WDP on the Agenda

In Brazil, workers' compensation is administered by the National Institute of Social Security (INSS). To access the INSS rehabilitation service, workers must be examined by insurance physicians. By law, when rehabilitation is approved, workers should be treated by a team of professionals for a certain period until he/she becomes able to exercise the previous job function. If not, he/she will be referred to vocational training. Insured workers have their first 15 days of sick leave benefits paid by the employer, thereafter, the INSS pays the benefits if disability persists (36). In practice, the rehabilitation of the INSS works mainly as a administrative action and the therapeutic side of treatment is usually covered by public health services, although unequipped to deal with work-related issues, sickness absence cases and RTW. Despite this shared responsibility between public health services (Ministry of Health) and the INSS (Ministry of Social Security), integrated policies and WDP actions between the two systems are yet to be developed.

The social and political context in Brazil is characterized by institutional instability, and lacks a historical tradition of an efficient social security system. Hence, there is no clear institutional "path" for policy-makers to follow. Rather, there is a long heritage of colonialism and economical power domination of the conservatives over the social democrats. This lack of stability and cohesion makes the system less predictable, and the attention of policy-makers

may be comprimised by bounded rationality as the political climate influence their perceptions of national priorities. Another consequence is a large gap between policy and practice with pressure on public services to reduce costs due to the economical crises (37). Consequently, the minimum criteria necessary for social inclusion and health equity in the workplace cannot be met, and workers with ill health will likely experience poverty and become more vulnerable. A more positive consequence of the lack of a clear path may be an opportunity for more radical political reforms since they are not as dependent on being in line with previous policies and structures.

Despite the fact that compensation for occupational problems and health and safety regulations are not new topics on the political agenda, it is only in the past few years that the debate on WDP in Brazil is emerging (38). Much of the debate is around how to implement public policies on WDP considering the complex bureaucratic scheme for workers compensation, the lack of integrated actions between healthcare services and compensation services, and a fragmented healthcare system that is unprepared to deal with such issues. The lack of local investment in research in this area, combined with the INSS approach to continue using a biomedical model and making only fiscal decisions to resolve sickness absence, have resulted in conflicts between the main groups of stakeholders (workers, employers, healthcare professionals, and insurance agents) which increase the problems of implementing effective WDP. Policy implementation in this context is fragmented and the social security system has problems with high administration costs, duplication of services, managerial problems, inefficiency and low public satisfaction for certain benefits. Many disability cases could be prevented if detected earlier and if proper treatment and RTW coordination were implemented.

One example of a WDP initiative in Brazil was a public health agency that in 2014 launched a technical guide for actions which promotes a step-by-step orientation to all

professionals dealing with WDP, regarding job modifications, stakeholder coordination, work ability assessments, etc. (39). This guide was developed in collaboration with internationally known experts in the field. Dissemination of the guide is still been carried out supported by local groups of stakeholders (including employers). The channels for this type of dialogue will depend on the willingness of policy-makers to consider the cumulative evidence and to develop policies that address the concerns of different stakeholders. The uptake of this type of research-based information presented in the guide will depend on the coalition strength between researchers and policy-makers (26) and on a balanced account of the responsibility of all the stakeholders involved, which may be obstructed by the bounded rationality of policy-makers (21).

The Québec Case: Ambiguity and Clashes of Social Roles

Canada has a federal political system with 10 provinces and 3 territories. Each province is responsible for healthcare and compensation for work-related accidents and disorders, with some federal general directions. Each province has a separate Workers Compensation Board (WCB) in charge of applying, managing and financing the workers' compensation system at the provincial level. In return these WCBs are no-fault systems and the worker cannot sue the employer for the consequences of an injury. In Québec, the WCB is named the CSST (Commission de la Santé et Sécurité du Travail). Since it is a caused-based system, funded by employers through premiums, compensation is not linked to the disorder itself but to its work-relatedness. For the first 14 days of absence, the employer pays 90% of the usual net income, after which the CSST pays an indemnity equal to 90% of the worker's net income. The physician in charge (chosen by the worker) has the responsibility for the prescription of the required care and the CSST has to comply with the physician's recommendations. In case of disagreement an appeal system is used.

In Québec, one of the authors (PL) had designed a rehabilitation program promoting an integrated approach directed at both workers and the workplace for work disability due to work-related back pain, and had tested it through a randomized clinical trial (40) with positive results. Based on this trial and ten years of experience in the field, action was taken towards creating a provincial public health network in work rehabilitation. In 2000, the CSST decided to support a Québec Network for Work Rehabilitation (RRTQ) by conducting a pilot implementation study for the work rehabilitation program in four major Québec rehabilitation centers. The RRTQ was to develop and implement evidence-based prevention and rehabilitation programs for individuals and companies, and to foster new knowledge and practices in work rehabilitation through research and training. The network implemented a program for rapid, safe and lasting RTW for workers whose persistent pain rendered work difficult or impossible, but for whom RTW remained the objective. The program was based on inter-disciplinary teams set up in each of the four rehabilitation institutions, receiving training on the program itself and on the latest available evidence on work rehabilitation. An executive, a steering and a coordinating committee were formed to supervise the development, coordination and follow-up of program implementation activities in the rehabilitation institutions. The RRTQ management also provided training for managers and rehabilitation counsellors involved in the trial. However, referrals of cases from CSST to RRTQ were never a smooth process and many conflicts in case management decisions appeared between RRTQ and CSST personnel. These difficulties led CSST management to decide an early closure of the project and to shut down the RRTQ. An independent evaluation through a case-control study later showed that cases managed through this CSST-RRTQ association were much more successful than the controls, in spite of the difficulties in management (41).

This case illustrates how the respective roles of the CSST agents and the RRTQ employees had not been clearly defined and accepted before the project leading to role conflicts in many cases. In this case, the ACF (26) may be applied to analyze how representatives from the CSST and the RRTQ used their institutional powers and advocacy coalitions to try to maintain their beliefs. It was not primarily political beliefs that were opposed (as right vs. left wing) but rather rules of functioning (administrative rules vs. clinical and workplace support and management) and a view of disability as closely linked to impairment (medical and forensic models on the CSST side), or linked mainly to psychosocial factors (professionals on the RRTQ side). Here, goals were interpreted through different lenses according to the norms and values of different social systems (24), resulting in ambiguity in terms of goals as well as means (20). Although the new management style had shown reliable evidence and had been prepared for policy uptake through cooperation with researchers, its implementation was heavily impeded by inter-organizational and administrative difficulties related to differing beliefs between stakeholders. It is also possible that bounded rationality (21) played an important role, as care providers were basing their actions on a biopsychosocial model while CSST actors was heavily influenced by a forensic model. All actors were sincerely applying taught rules and roles but speaking a different language.

Discussion

The complexity of WDP requires careful examination of the conditions for the development of policies and practices. The central issue is not only to define evidence-based practices but to aid policy-makers and other stakeholders in understanding the implications of the evidence. WDP may be considered to span across different political sub-systems (26), e.g., those of work environment, employment policies, sickness insurance, and healthcare policy; however, WDP is also a sub-system in its own right, with different stakeholders

forming different advocacy coalitions. As the case examples illustrate, it is challenging to translate WDP evidence into policy, and there are several socio-political barriers for this. While problems may be at the policy level (e.g., putting the issue on the agenda or targeting the right stakeholders), ineffectiveness may also occur at the level of the implementing organizations and their cooperation with other stakeholders. The more aware stakeholders become of these problems, the higher the chances are for them to tackle them.

When changes in policies or legislative structures occur, more explicit attention must be placed on socio-political and institutional dimensions. It is important to understand the many issues affecting the policy-making process, including the conditions for successful advocacy, the role of social movements (42), and the role of researchers (43). Here, the use of theories such as the ACF or the ambiguity/conflict model may facilitate understanding of the policy process and how it relates to research, by pointing out areas of conflict and motivation for policy-makers to engage in development. The theories also help to illustrate how research is not politically neutral and that it may be used by policy-makers in different ways (44).

Given the complexity of the policy-making and implementation processes, we propose that evidence utilization in WDP is discussed through a conceptual framework that targets the following aspects:

- the ambiguity and conflicts regarding what to do and how to do it, related to the varying evidence in the field, the political ideas of the policy-makers and the institutional systems in which they reside;
- stakeholders' bounded rationality, path dependency and connection to social systems, concerning policy-makers, professionals and researchers alike;
- the coalitions formed by different stakeholders (including researchers), and how strong these are within the community.

In WDP issues, the evidence is relatively strong in certain areas, e.g., regarding the need for inter-organizational interventions and the influence of workplace factors on all levels of prevention. In other areas the evidence is less strong, as in how social insurance systems should be designed; the influence of legislation on prevention; or how to promote inter-organizational cooperation. In the WDP field, evidence is also highly context specific since the overall societal context determines much of the responsibilities of different stakeholders. WDP interventions may therefore be seen as pending between high and low ambiguity, depending on the type of intervention in what context.

WDP is often a conflict-laden field, where different stakeholders may have highly divergent perceptions about problems and solutions. Bounded rationality and social systems theory help explaining how stakeholders narrow their interpretation of WDP issues based on social norms and organizational priorities. Path dependency serves to explain how institutional stability can influence the resistance to change, primarily at the policy level. The ACF is well suited for analyzing policy processes and how groups may gather around certain opinions, which may influence how evidence is used and adopted over time.

The three case examples illustrate how different aspects of the social political context may be relevant in evidence utilization. While the Swedish case illustrates how changing national policies in well-established social insurance systems involve much political conflict, the Brazilian case illustrates the challenges of putting WDP on the agenda in the first place. The Québec case shows the challenges of research uptake when goals and means clash because of stakeholders' different beliefs and norms that are embedded in social systems. In these three cases, the design of social insurance systems, the access and infrastructure of healthcare systems, labor market policies, employers' level of responsibility, the regulatory environment, and the general knowledge of WDP issues among stakeholders played different roles in the implementation of policies based on scientific evidence.

Another observation from the examples is that policies and practices that are implemented may not at all be based on evidence (or ideologically framed interpretations of evidence), and may even *prevent* implementation of evidence-based strategies, e.g., policies or routines that exclude relevant stakeholders or that impede cooperation (as in the Swedish case, where employers have largely been ignored as a relevant actor in WDP). This opens up for a discussion about the political use of evidence, and whose goals are in focus when policy reforms are being implemented (44). This point is of specific relevance in cases where costs for interventions are placed on one stakeholder group while benefits appear for others.

Influencing Policy

In order for researchers to understand and influence the policy process, it is central to realize that evidence is not unequivocal, and that researchers are not neutral actors (44). For researchers to influence policy, they need to engage in policy development, which implies developing deep knowledge not only of the research evidence, but also of the political system; building networks with policy-makers and other stakeholders; and participating in these networks for extended periods of time (43). One way of building coalitions may be through establishing communities of practice (45) involving the relevant stakeholders and policy-makers, in which joint knowledge may be disseminated and translated into policy and practice. In such communities of practice, backward mapping (46) may be used as an analytic strategy in scrutinizing current practices, and then relating policy development to the institutional and practical conditions, as well as to relevant evidence. Such engagement may promote a paradigm shift in how WDP is understood (47): from viewing work disability as directly linked to disease or injury to realizing that disability is mainly related to social and psychological factors. In turn, this type of dialogue may imply a change in the core belief system of different stakeholders.

Taking a transdisciplinary perspective in studying WDP may further broaden the evidence, and engaging in translational research may improve understanding of socio-political, cultural-behavioral and structural problems of implementation. Further, cross-country comparisons are called for to understand how evidence is utilized in different systems, and how socio-political barriers can be overcome. It has also been emphasized that policies need to include groups not normally in the focus of attention, such as young workers, women or temporary agency workers (48), which also illustrate the need for researchers to share scientific knowledge with these vulnerable groups and support a broader and inclusive perspective on WDP.

Conclusions

The implementation of WDP strategies on the policy level may be studied through a conceptual framework that targets: 1) the institutional system in which policy-makers and other stakeholders reside; 2) the ambiguity and conflicts regarding both what to do and how to do it; 3) the bounded rationality, path dependency and social systems of different stakeholders; and 4) coalitions formed by different stakeholders (including researchers), and how strong these are within the community. From this perspective, it is more important how evidence is utilized and by whom, than how it is defined. This approach to studying implementation processes and evidence utilization is primarily social and policy-oriented, emphasizing the dynamics between stakeholders. For influencing policy and for facilitating the utilization of evidence, researchers are advised to engage and build coalitions with stakeholders and policy-makers.

Declaration of Interest

The authors report no declarations of interest.

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Table 1. WDP interventions, their features, and systems involved

WDP intervention	**Intervention features (variations)**	**Main system involved**	**References**
Public campaign	• Self-management of pain • Staying healthy at work	Culture Legislative	[1, chapter 24]
Healthy workplace programs	• Health promotion programs with primary prevention ergonomics • Empowering workers to take responsibility for their own health and safety at work • Work organization and leadership	Legislative Workplace	[15, chapter 28] [1, chapters 13, 21, appendix]
Occupational rehabilitation programs	• Clinical and occupational interventions offered by a multi-professional team, with or without vocational training • Modified work or graded work exposure	Healthcare Workplace	[1, chapters 20, 26] [15, chapter 26]
Early intervention	• Case management • Clinical guidelines to patients in the initial phase of symptoms (reassurance messages, early RTW recommendations, etc.) • Early screening based on prediction models • Education • Functional restoration (exercise and physical restoration) • Cognitive-behavioral therapy	Healthcare	[15, chapters 24, 25, 27] [1, chapters 13, 26]
Workplace modifications and/or accommodations	• Organization/HR policies for accommodations • Workplace modifications (workplace design adjustments and changes in work organization)	Legislative Workplace	[1, chapters 21, 26]
Disability management / work rehabilitation programs	• Case coordination supported by the employer or insurance program • Inter-organizational collaboration to facilitate RTW • Multi- or inter-disciplinary teams • RTW policy and modified duties	Healthcare Workplace Compensation/ insurance	[1, chapters 19, 26]
Vocational rehabilitation	• Vocational training for those able to return to productive work life	Healthcare Legislative Workplace	[14]
Policy interventions	• Sickness and disability benefits	Legislative Workplace	[1, chapter 22]