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The "Toxic Dose" of System Problems: Why Some Injured Workers Don't Return to Work as Expected

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Abstract *Introduction* Most workers who incur an injury on the job follow a relatively straightforward path through a workers' compensation claim, recovery and return to work. However, a minority of compensation claims is prolonged and can be disproportionately costly. We conducted this qualitative study in order to gain an understanding of systemic, process-related problems affecting injured workers who had failed to return to work as expected. *Method* A total of 69 in-depth interviews were conducted with injured workers with complex and extended workers' compensation claims and with return-to-work (RTW) providers such as health care providers, insurers, legal advisors, and workplaces. The study was based in Ontario, Canada. A modified grounded theory analysis led to the identification of common mechanisms in RTW problems. *Results* We identify problems with return to work and extended workers' compensation claims in dysfunctions in organizational dynamics across RTW systems including the workplace, healthcare, vocational rehabilitation and workers' compensation. These system problems are difficult to identify because they appear as relatively mundane and bureaucratic. These appeared to have damaging effects on workers in the form of a 'toxic dose' affecting the worker beyond the initial injury. *Conclusions* Worker's problems with extended claims were linked to RTW policies that did not easily accommodate conflict or power imbalances among RTW parties and by social relations and processes that impeded communication about RTW situations and problems. Avenues for intervention are located in a shift to a critical lens to RTW process that addresses differences of knowledge, resources, and interests among different parties.

Keywords Return to work · Qualitative · Injured workers · Workers' compensation · System challenges

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Introduction

Most workers who incur an injury on the job follow a relatively straightforward path through a workers' compensation claim, recovery and return to work. However, a minority of compensation claims are prolonged. In parts of Canada and the United States, it is estimated that eighty percent of workers' compensation claim costs are taken up by the twenty percent of workers on these longer-term claims [1, 2]. To date, it is unclear why and how these claims are extended.

We conducted this qualitative study in order to gain an understanding of systemic, process-related problems affecting injured workers who had failed to return to work as expected. A review of research informing return-to-work (RTW) policy indicates that it is predominantly based on economic theory (e.g. moral hazard), psychological theory (e.g. fear avoidance), and epidemiological research (e.g. prognostic factors based on features of individual workers) [3]. With some exceptions [4–6], relatively absent from scientific research on workers' compensation issues is a qualitative approach that explores RTW problems 'from the

ground up', examines the nature of social interaction among various RTW parties, and explores links between 'personal troubles' and 'public issues' that transcend the local context of the individual [7, 8].

In this paper, we identify ways that workers can experience problems with return to work and have extended workers' compensation claims because of system-level RTW problems. Further, we suggest that these types of problems can be overlooked because they appear as relatively mundane and bureaucratic. Our findings suggest that worker's problems can be propelled by RTW policies that do not easily accommodate conflict or power imbalances among RTW parties and by social relations and processes that impede adequate communication about RTW. These mundane processes include, for instance, employer fiscal strategies, untimely service referrals, incomplete health forms, and confusing paperwork. Such seemingly benign policies and procedures were linked to damaging effects on workers in the form of a 'toxic dose' affecting the worker beyond the initial injury. We suggest that early RTW policy and related system problems play a role in extended workers' compensation claims and locate avenues for intervention in improved system design and implementation.

Literature Review

Studies in the health economics literature have noted that health care and rehabilitation costs for injured workers are disproportionately high and that most costs are incurred by a minority of workers. According to Wickizer and colleagues [1], treatment outcomes for workers' compensation are worse than outcomes for similar non-work related conditions. This study of Washington State claimants also found that a *small* portion of injured workers constitute a *large* portion of workers' compensation costs. Five to ten percent of injured workers with musculoskeletal problems who suffer long-term disability incurred up to 85% of total workers' compensation costs. A similar cost distribution is reported in Ontario [2].

We identify five potential explanations for extended and costly workers' compensation claims. These centre on patterns of pain and coping, interface with the health care system, workplace relationships, the workers' compensation system, and worker experiences.

Extended claims might occur because workers become 'stuck' in patterns of pain and coping which are not conducive to return to work. The longer a worker stays away from work, the more social, mental health and personal difficulties accrue to the point that return to employment is unlikely [9–11]. The problem is not simply the injury but rather the adaptation of the worker to the new health condition and personal circumstances. It has been suggested that the rehabilitation system needs to focus on the relationship between symptoms and disability rather than on the disability itself [12, 13].

A second potential explanation relates to workers' interface with an inefficient and poorly-managed health care system. Much occupational health management research has focused on ways of better coordinating health care services and resources. For instance, in the United States there has been a move away from the physician as a 'gatekeeper' of health services to a managed care approach as a way of containing health care provision. Research on managed and facilitated care systems has shown that these systems can create liaisons between workplaces, health care providers and workers, therefore, enhancing the possibility of suitable RTW arrangements and avoiding problems that develop over periods of prolonged absence [14, 15]. However, an issue is that case management and teamwork is, in itself, not a solution because the construction of the team is often overlooked. Pergola and colleague's [16] study of workers' compensation case workers found that teams were often mismatched in terms of abilities and personalities, and were not formulated with consideration of the needs of the client. Workers' interface with the health care system can also be problematic when they have health problems that are invisible or indeterminate and they have difficulty obtaining a diagnosis for a problem. A lack of diagnosis and medical documentation can delay or complicate a compensation claim [3, 17–19] leading to possible extended claims.

A third possible reason for extended and costly claims relates to the relationship between the worker and the workplace. According to Eakin and MacEachen [20], work injury can invoke unanticipated conflicts of interest in a workplace. Employers may care about their workers, but costs associated with the injury remind them of their primary need for business survival and success. Competing interests of employers (costs) and workers (recovery) can become acute during times of work injury, particularly when labour relations are already strained, leading to alienation between the worker and employer and subsequent problems with return to work. Other work-related problems occur when employers are unable [4] or are unwilling to provide workplace accommodation to a worker [17, 21].

Explanations for extended workers claims might also relate to the workers' compensation system itself. A study of Washington workers' compensation case managers found that they had difficulty with the many administrative 'hoops' through which they had to jump. Excessive amounts of complicated paper work were identified as hindering the progress of getting an injured worker back to work [16]. Compensation system responsiveness has also been identified as hindering claims processes. A study of Ontario injured workers found that some had negative and

unsatisfying relations with workers' compensation staff, who they felt did not respond to their needs [17]. These problems may relate to workers' compensation system rigidity mentioned by Disler and Pallant [22] who argue that an unresponsive vocational rehabilitation system can lead fit workers to become physically de-conditioned as they enter into a cycle of hopelessness, anxiety and depression. Another compensation system-related issue is claim decision-maker (mis)interpretation of scientific data. Lippel [23] finds that criterion for evaluating claims are strongly linked to medical expertise and that because workers' compensation decision-makers are not necessarily familiar with scientific data they can misinterpret medical conditions, thus creating complexity and dissension among compensation stakeholders.

Finally, a literature exists on worker experiences of work injury and the compensation system. Roberts-Yates' [6] study of Australian injured workers with RTW problems found that workers had a limited knowledge of the claims process, including their rights and responsibilities. Kirsh and McKee's [18] participatory research study of injured workers reports similar findings for Ontario. Other studies report that injured workers feel that they are treated with suspicion by compensation workers [6, 24, 25] and by other members of their communities such as employers, co-workers, and neighbors [4, 18]. Also, workers experience stress and strain in family relationships, financial hardship, and restructuring of self-identity [26–31].

These studies suggest a range of possible RTW interventions, from chronic pain treatment [32] and pain coping strategies for workers [33], to better healthcare coordination, to improved workplace relations, to improving workers' compensation administrative processes, to providing more personal support to workers. However, each would focus on parts of the problem, and not on underlying mechanisms that might have broader effects. It has been argued for almost two decades that problems as multi-faceted as RTW require analytic focus at different levels, ranging from the individual to the workplace to systems [34, 35]. A recent review of RTW evidence notes that there has been a lack of in-depth exploration of the overall *organizational dynamics* that surround the management of workplace rehabilitation [36]. While academic papers have identified RTW problems in workers' compensation organizational dynamics, they are almost always based on studies of worker accounts [37, 38] or on physician opinion-pieces [35, 39] and generally do not include an empirical, systematic investigation of workplace, healthcare and vocational rehabilitation systems. A relatively unexplored way to examine why some workers' compensation claims become problematic and extended is to examine the organizational dynamics of RTW focusing on multiple systems engaged in the RTW process and using the input of system providers in addition to workers.

Methodology and Analytic Focus

This study extends the literature on problematic and extended RTW situations by focusing on the experiences of both users and providers in the RTW system and by linking individual experience and various system-level processes. The study was developed and guided by a critical realist perspective [40–42]. This theoretical approach acknowledges real world complexity and social reality as incorporating individual, group, institutional and social levels. From this lens, individual behavior and actions are shaped and made possible by social structures and systems; in this case, health care, retraining and workers' compensation systems. Critical realism is also concerned with identifying the mechanisms producing social events. While recognizing that social systems operate in a state of flux, observable phenomena (such as interview accounts, policy documents) can be linked to underlying structures and mechanisms which are difficult to measure quantitatively but, nonetheless, are 'real' and can impact return to work.

The study was based in Ontario, Canada. The early return-to-work system in Ontario is similar to jurisdictions such as the United Kingdom, Australia, United States, Germany and New Zealand that have policies of early RTW before full recovery [43]. In various ways, these systems provide incentives to employers to encourage them to provide accommodated work to injured workers so that the duration of work absence is reduced.

The findings are based on qualitative data consisting of in-depth interviews with injured workers with extended and complex RTW trajectories and with system providers who help to enact RTW policy and whose day-to-day work involves direct contact with such workers. Publicly-available RTW policy documents were also gathered. A 'maximum variety' purposive sampling approach was used to recruit different types of providers and varied workers from different regions [44]. This sampling approach allowed for the identification of common patterns that cut across variations.

Interviews were conducted with 69 participants. These include in-person interviews with 34 workers injured in the course of their jobs and, subsequently, not working and claiming workers' compensation benefits for at least 3 months. Fourteen of these workers were engaged in injured worker support groups as 'peer helpers' and so able to describe a breadth of their own and their peer's experiences. In-person and telephone interviews were also conducted with 21 providers who were selected for their direct knowledge of injured worker predicaments. These included various health care practitioners, legal advisors, human resources personnel, and workers' compensation staff (see Provider Description Table (Table 1) for amounts and types of providers).

Table 1 Provider description

Provider description table	Total ($n = 21$)
Employer	
(*i.e., Human Resources Representative, Occupational Health and Safety Representative*)	2
Health care provider	
(*i.e., Chiropractor, OH Physician, Physiotherapist, Occupational Health Clinic Representative, Psychologist, Medical Consultant*)	7
Other	
(*i.e., Return to Work Coordinator, Vocational Rehabilitation Provider*)	2
Worker Representative	
(*i.e. Office of the Worker Adviser Representatives, Union Representatives, Legal Representatives*)	6
Workers' Compensation	
(*i.e., Nurse Case Manager, Adjudicator, Manager*)	4

The sample consisted of primary data collected in 2006–2007 and secondary data collected in 2004, all by the first three authors. The purpose of the earlier study was to understand the activities of a network of injured worker peer support groups [19]. These secondary data were 26 injured workers, including 5 peer helpers.

In the final sample, 22 of the workers were women and 26 were men. The average age at the time of the interview was in the 50's, and at the time of injury was 40. The education level of the workers was split fairly evenly between those with less than a high school diploma, a high school diploma, and some post secondary education. Many had been employed in trades, transport, and equipment operating jobs. Some were in service occupations, manufacturing, clerical, and healthcare. More than half of the workers had back or soft tissue injuries. Others had fractures, head injuries, amputations, crushes and one had a respiratory illness (see Table 2, for sample details).

Workers were recruited through a variety of sources in order to maximize variety: legal clinics specializing in work injury, occupational health clinics, injured worker support groups, worker education centers, and a chronic pain support group. At each location, information about the study was provided to an intermediary who then forwarded this information to others at the centre. Workers interested in participating, either contacted the researchers directly, or gave the intermediary permission to forward their name and telephone number to the researchers. Workers agreeing to be interviewed were provided with a $10 coffee shop gift certificate as a 'thank you' for their time. When in direct contact with the researchers, none declined to participate; most expressed relief that they were being consulted about their experiences. Providers were not provided with an honorarium and were recruited through the researchers' own networks and using the 'snowball' method, whereby, participants refer investigators to peers.

All interview questions focused on workers' and providers' experiences of RTW situations, particular challenges with return to work, why problems occur and what could help alleviate problems. Workers were also asked about their injuries and circumstances and understanding of the workers' compensation system. Providers were also asked about how their services function in relation to other parts of the RTW system. Interviews lasted approximately 1 h, and worker interviews, which tended to involve more detailed case descriptions, were generally longer than provider interviews.

The interviews were audio-recorded, transcribed verbatim, and entered into the qualitative data software program, The Ethnograph. An iterative process between data collection and data analysis allowed for refinement of analytic focus over time. In this study, analysis of the secondary data supported the construction of interview questions for new worker interviews. Analysis of these new worker interviews, in turn, contributed to questions asked of providers. The iterative data collection and analysis process led to extra interview questions to address particular issues (for instance, asking providers about times when return to work does not seem feasible), and to the inclusion of different kinds of providers (such as union representatives) as their roles in return to work became apparent. Data analysis followed a general grounded theory approach [45], which involves developing codes to identify concepts and from these, the development of themes. In this study, field notes were written for each interview to capture contextual dynamics and emerging ideas. As analysis progressed, codes were developed to capture descriptive and analytic concepts, and each interview was dual-coded by varied pairs of investigators. At the conclusion of all data gathering and coding, code summaries were created to distill findings and allow the researchers to systematically link and compare concepts to develop themes. All interviews and analyses were discussed by the study team at bi-weekly meetings. A key analytic observation was the concurrence of injured worker and service provider accounts. It had been expected that these accounts might diverge because of different positioning in the RTW process. However, all descriptions of RTW problems and situations overlapped and reinforced each other.

The research was guided by an Advisory Committee that met over the course of the study to reflect on design and sampling, interim results, and to comment on the findings report. The Committee was comprised of representatives from the health care, workers' compensation, and injured worker community. The study received ethical approval

Table 2 Worker description

Worker description table	Injured worker ($n = 34$)	Peer helper ($n = 14$)	Total n ($n = 48$)
Gender			
Female	14	8	22
Male	20	6	26
Age (at interview)			
<30 years	0	1	1
30–39 years	3	0	3
40–49 years	11	2	13
50–59 years	12	7	19
60+ years	5	3	8
x = 51 years			
Age (when injured)			
<30 years	3		3
30–39 years	15	5	20
40–49 years	9	2	11
50–59 years	5	1	6
60+ years	0	0	0
x = 40 years			
Education			
<Grade 12	15	1	16
High school diploma	9	5	14
Some post-secondary	5	4	9
College/trade certification	3	1	4
University degree	1	0	1
Post-graduate	0	2	2
Pre-injury occupation			
Management	0	1	1
Clerical	3	2	5
Health Care	4	1	5
Manufacturing	8	1	9
Service (e.g., housekeeping, kitchen workers, custodians)	6	0	6
Trades, transport and equipment operators (e.g., construction, machine operators, drivers, general labour)	11	3	14
Initial injury			
Amputation	1	1	2
Back	11	4	15
Cancer	1	0	1
Crush	4	0	4
Fracture	5	0	5
Head	2	0	2
Respiratory	1	0	1
Soft tissue	9	3	12

Note: Numbers do not always add up to 48 because not all individuals spoke about each characteristic. For instance, peer helpers were not asked about their own injury

from the University of Toronto. All interviews were conducted with informed consent, and participants were assured of confidentiality and anonymity. Only summary, anonymous results were shared with the Advisory Committee. All participant names in this paper are pseudonyms.

Findings

The findings are laid out in five parts. The first four parts show how system problems can occur and affect workers in different systems engaged in the RTW process: workplace, healthcare, vocational retraining, and workers'

compensation. Part five details the common threads of system problems that run through each of these RTW contexts, showing how system problems appear to be mundane, bureaucratic and benign in nature, and yet, can have an impact on injured workers, resulting in a damaging 'toxic dose' of system problems.

Workplace Problems

When a worker is injured or ill due to a workplace incident, employers are encouraged by early RTW workers' compensation systems to offer modified work to the worker while he or she is injured and until able to resume full duties. In Ontario, experience-rated premiums offer financial rebates to employers for fewer than expected reported days of work absence due to work-related injury and surcharges for higher than expected days of work injury absences. These financial incentives are meant to motivate employers to prevent work injuries and to reduce the duration of work absences [46].

We found system problems with workplace RTW that related mostly to a lack of fit between the requirements of early RTW policy and the financial orientation of workplace owners and managers. Participants pointed out that workplaces exist to make money, and that employers will avoid workers' compensation premium costs incurred with a work injury because this can pose a financial burden to the business. Also, businesses are financially prompted through experience-rated premiums to bring injured workers back to modified work, but when the worker is unable to perform normal tasks the business must incur extra costs of both accommodating the returning worker and getting the job done by other means. One service provider describes how RTW processes can be unaffordable to some businesses:

> For a small employer, they have to have somebody there being– [productive]. They… can't afford to have somebody in there working at a modified basis and then hiring someone else to do the other half. So it becomes a financial issue for small [business] workers. (Cameron, chiropractor)

One way that employers can reduce workers' compensation premium surcharges related to worker absence following an injury is by simply disallowing the absence. In these situations, RTW problems for the worker can begin only moments after the accident, when the worker is injured and cannot function but the employer requests an immediate work return. The employer might not be able to accommodate the health condition of the worker, but misleadingly reports to workers' compensation that modified work arrangements are in place. In such situations, the worker might be back at work and struggling to maintain a full work load, or be 'at work' but inactive, for instance, assigned to sit in the cafeteria:

> They call you next day and you have to go back. They had one fellow at work … he was there sitting in the chair [in the cafeteria]… The poor guy being humiliated … because they ask him to go there and spend the days in there. …. He had to go there because they want to save their money … to get the ….[workers' compensation premium relief]. (Sebastian, injured worker)

In Ontario, there is no system is in place to verify employer-reported accommodation conditions, except via worker complaint [47]. However, if workers do complain, their word can be pitted against that of their employer. In conditions of job insecurity, workers can be too vulnerable to engage in official complaints against their employers. This union representative describes the difficult predicament of workers who complain about their workplace accommodation:

> The employer will often proffer… a straw man job, you know? A job that really, the worker knows in his heart he shouldn't be doing or can't do or it's a demeaning job…and the worker goes, "Oh, I'm not doing that!" and instantly they're non-cooperative with [workers' compensation] and they're REALLY in trouble. (Kiefer, union representative)

Employers also avoid compensation claims costs by not reporting an incident, or by contesting a workers' accident claim. Some workers, facing uncooperative employers and fearing job loss, simply continued working, a phenomenon we called 'over compliance'. As noted by this peer helper, such stoicism can lead workers to become more severely injured:

> If you live in one industry towns and you can't get back in that workplace, you're left with choices such as picking up and leaving or trying to do [the work]. And this is what we see, a lot of people who aren't prepared to leave will attempt to do a return to work and do things that are really outside their restrictions…And then in the long run they end up doing more damage, then they become more severely injured. (Finn, peer helper)

Some workers' compensation systems, like Ontario's, deal with only injuries and illnesses arising in and out of work. In such systems, employers can avoid workers' compensation claims by challenging the work-relatedness of the injury. Such employer contestations can be made with some facility when the worker has a sprain or a strain because the source of such problems can be difficult to pinpoint. Did the back strain originate at work, or in activities at home? Even if the injury was witnessed by co-workers, they can be unwilling to defend a worker if it

means testifying against their employer and so risking their jobs. These political dynamics of injury reporting are explained by a worker legal advisor:

> It isn't exactly politically correct to say this, but it's in their [employer's] best interest to hide things… and their [employer is] doing their best to bury evidence that will…actually help to prove the claim…And, you know, it goes on more frequently than people would like to admit…. I've seen all kinds of examples in big employers and small employers where they'll… bury relevant facts. (Terry, worker legal advisor)

With early RTW policy, workers are not yet recovered from their injury or illness when they return to the workplace and they are accommodated by being given a lighter work load through job re-arranging or support. Accommodation arrangements for injured workers can impact co-workers who must, (at least temporarily), pick up the slack or even occupy the worker's position. Co-workers who already have a full job might resent the imposition of an injured worker's workload. In these situations, RTW social dynamics can be caustic to the returning worker. Participants referred to 'battling co-workers' and to 'resentment and hostility':

> I didn't have the seniority at the time [for the modified work at a desk job], I was taking work away from people who thought they had earned the right to this work. So you're battling your co-workers and the whole thing was— there was a lot of bad feelings. (Janet, injured worker)

> We conduct focus groups with… workers….. trying to return to modified work, [and find] that one of their greatest barriers aside from the fear of re-injury is the resentment and hostility they feel from their co-workers. (Anita, physiotherapist)

These examples begin to show how problems with return to work can be found in social relations in the work environment and in the set up of the RTW system. Often, workers, who have been injured, are feeling unwell and are unfamiliar with the compensation system. They may not know their rights, or be unwilling, to risk their employment or benefits by 'rocking the boat'. In contrast, employers are generally well and in a superior knowledge and resource position to deal with workers' compensation issues.

Problems experienced by workers in the context of workplace-based RTW show how RTW policy of returning workers to work while they are still unwell does not always fit easily with business logic or practices, or the social relations within workplaces. Early RTW policy appears to rely on an idealized image of workplaces as eager to support the health and recovery of injured workers. This policy does not appear to deal well with the possibility of employer non-reporting, employers who lack a caring approach to their employees, or co-workers who are unwilling to take on extra work or risk to help an injured worker.

Health Care Problems

System problems were also found in healthcare processes. When workers are injured on the job, coordination between healthcare providers, the worker, employer and workers' compensation are essential for preparing for return to work. In order to determine eligibility for initial and ongoing benefits, workers' compensation decision-makers rely on information submitted by healthcare providers about worker's restrictions and functional abilities. System problems with health care relate mostly to a lack of fit between the time, resources and decision-making latitude available to health care providers and the expectation in workers' compensation policy that this needed time and inclination is present.

A key problem at the interface between workers' compensation and health care providers related to form-filling. Physicians who saw workers for work-related health injuries or illnesses, were expected to complete workers' compensation forms providing full communication about medical findings on which workers' compensation decision-makers could base a decision about worker benefit eligibility. However, healthcare providers did not always fill in forms correctly, or at all. As these providers explain, healthcare providers can be too busy for this sort of workers' compensation paperwork:

> It's very frustrating dealing with compensation claims, because you don't have the time in your practice to do, to get all the information you need to help support that claim….. (Dana, Occupational health physician)

> The problem we have [is]…the doctor may be SUPPORTIVE but not supportive in the extent that the system requires. That is, the system wants really detailed physical findings. And let's face it…the doctors don't have the time to provide, meet the system's evidence requirement in a lot of times. They're just so busy, they can't take the half hour to examine someone thoroughly and do a complete system inquiry. …Unfortunately (sighs) … [during claim disputes] you can see the results of shoddy…clinical work-ups of a [worker]…We're relying on certain medical reporting that really doesn't seem to be all that detailed. (Terry, worker legal advisor)

When incomplete health forms are received by the workers' compensation decision-makers, this can result in ill-informed case management decisions that unduly deny worker eligibility for benefits or that delay eligibility decisions. In such situations, workers can be left injured and unable to work, and also in financial distress without income support.

Physicians can also be reluctant to engage with the workers' compensation system when their treatment advice to patients is not heeded by compensation adjudicators. For instance, a physician might recommend that a patient requires a period of time away from work, but based on employer reports of available modified work, the adjudicator might ignore the physician recommendation and require the worker to immediately return to work. Also, a physician might prescribe a certain medication, but if it is not on the workers' compensation list of refundable drugs, the worker may be unable to access the medication. As this peer helper explains, the influence of workers' compensation over physician's ability to manage patient treatment can result in physician non-cooperation, with the result that workers lack the medical documentation they need for their claim:

> Consistently there's the issue of medical information….A lot of doctors…are not crazy about spending a lot of time writing medical reports….and don't provide all the detail that would make the claim go through easily. Then there are some that are just pissed off at the Compensation Board, because…they get overruled or contradicted or not listened to which can lead them to be even less cooperative. So if you don't have good medical documentation, you're sunk, right there. (Samuel, peer helper)

Negative interactions with workers' compensation can lead healthcare providers to avoid injured workers, as was Christopher's experience:

> [Physician] wouldn't listen to me. [He] looked right at me and said….."I hate compensation. I don't want to have anything to do with the paperwork." He said, "I'm fed up with all of it"…. Because he hated compensation. And he wouldn't do anything. (Christopher, injured worker)

Healthcare-related problems can also occur when the workers' compensation decision-makers require multiple health assessments of a worker's condition in order to gather sufficient evidence that the condition is work-related and, therefore, eligible for compensation. This process of multiple assessments can be frustrating to physicians, and draining for the worker. As noted by this occupational health physician, it can delay worker support and contribute to deterioration of the worker's health:

> So what I mean is…what is the level of burden of proof that you have to have? So it becomes very frustrating as a specialist where you're always questioned. …And you know, you have to have so many other specialists see them. And I think it just increases the complexity of what you're doing, and also it becomes very frustrating for the workers. …Same way, you know, we see that a lot, as well, with [occupational disease] claims that often they're seen by many, many specialists, all are saying it is work related, but Compensation needs a few MORE assessments to finally accept it, and by that time, you know, the [disease] is chronic and the person can't return to the workplace environment. (Dana, occupational health physician)

The RTW and benefits system requires a great deal of healthcare provider time and cooperation for adequate documentation and provision of information to the workers' compensation. This peer helper describes the tremendous effort required for "everyone to be on the same page":

> A worker who has a good relationship with the doctor…a doctor who gives a care about, and knows how the system works, so spends the appropriate time making sure that the appropriate information is put on the forms. Those are [worker's compensation] files that go well… And an employer, who in the process agrees and doesn't sort of try to challenge and force issues. … They agree that whatever the doctor is saying sounds reasonable and, therefore, I'm not going to force Joe to come back to work" …So it's a matter of everybody being on the same page. When everybody gets on the same page and everybody's doing their part, the system *can* work. (Finn, peer helper)

System procedures for communication of injured workers' health conditions to workers' compensation depend on doctors and therapists having the patience and charity to engage in time-consuming and, sometimes, difficult interactions with the compensation system. This can be particularly problematic in jurisdictions such as Ontario, where there is a physician shortage [48], leaving physicians over-engaged. Problems with healthcare for injured workers show that straightforward communication and exchange between the workers' compensation system and healthcare providers cannot be assumed, and that paperwork and assessment demands of the RTW process can tax healthcare providers beyond their available time, patience and resources. For some workers, this can result in incomplete medical information being provided to workers' compensation decision-makers, flawed entitlement decision-making, and further worker hardship.

Vocational Retraining Problems

System-related RTW problems were also found in the vocational retraining program, to which work-injured workers are sent when the employer can no longer provide a job to suit their permanently impaired physical abilities. In Ontario, the 'labour market re-entry' program provides retraining to workers to restore their wage-earning ability. Once retrained, workers are considered employable, and so compensation benefits are deemed no longer necessary, and are reduced or stopped. This vocational rehabilitation is considered part of the RTW continuum, except that workers are made ready for the labour market and are not guaranteed a job. System problems with vocational retraining relate mostly to system (mis)coordination about when the worker is ready to start this program, and built-in assumptions about the ability of workers to participate in re-training, and to obtain employment on the labour market.

If a worker's injury has created sufficient bodily damage that it is clear he or she cannot return to a workplace, then vocational retraining to reduce 'loss of earnings' begins. However, at this stage the worker may not be recovered and this can interfere with the retraining program. Problems occurred when workers were experiencing unresolved chronic pain (a condition not eligible for workers' compensation benefits in Ontario) or were still undergoing significant treatments, such as surgeries. These disrupted workers' ability to participate and learn. This provider describes how workers were sent to him when they were not ready for retraining:

> We may get a…referral [from workers' compensation] …you look at the file and you go, "What the hell, you're scheduled for surgery in two months?"… That's not unusual! And you say [to workers' compensation], "Why are they in [vocational retraining]?" "Well, we just have to…move it along; we have to identify the loss of earning." Well, how can you do that when you don't even know what they can do? We're not supposed to question things. (Charles, vocational rehabilitation provider)

Workers and providers described worker pain during retraining programs as a regular problem, and a system that did not appear to address such problems:

> None of them …the guy I was working for, plus my [vocational rehabilitation provider] person, and my adjudicator, none of them were listening to me. Because we started out…they didn't follow my restrictions, even though I tried to follow them as much as I could…[but] we just jumped right into an eight hour a day [apprentice] job. And by the end of the day, oh, I was [in pain and] like a saber-tooth tiger trying to pull teeth, if you know what I mean. And nobody listened. (Hal, injured worker)

Problems with retraining also occurred when workers were ill-suited for education because of their background and aptitude. Workers who were in laboring occupations might have never succeeded with formal education. When such workers were sent for language and literacy training and extensive upgrading, they could be overwhelmed and distressed, and struggled with the vocational retraining program:

> I've had other cases where guys…were evaluated for their ability to write or speak English, [and] were rated at grade two or grade three. Ok? The Board then said, that shows great potential. [laugh] They put him into a speeded up program for a year or six months in English, right? He couldn't do it, right? And…they fail. The decision comes down, you're deemed able to do it, and since you refused to use the program, it is non-cooperation, we're cutting you off. Now, I won all those cases at a tribunal, but the worker had to go through three years of hell, you know. (Peter, worker legal advisor)

Some participants believed that a system focus on cost minimization drove decisions to place workers in inappropriate training programs, or at the wrong time in their recovery trajectory. Janice explains that a short-term costs orientation led to workers being placed in small and relatively unknown private schools when similar programs were being offered by reputable community colleges.

> The reason the Board likes them [small unknown private schools] is because a lot of them offer these short-term programs that on paper may sound really great. But they actually are quite expensive…..A course that may only be eight months is twice the amount of what it would cost to send somebody to [community] College. But they're looking at the cost of the [workers' compensation] benefits….[and chose a program that] was short and it was quick and they could get her [worker] out of the [workers' compensation] system as quickly as possible. (Janice, peer helper)

Even when workers have been adequately and fully retrained, they are at a systemic disadvantage because people with disabilities are underemployed on the job market [49]. Retrained injured workers are further disadvantaged because they are not young and lack work experience in the new field. This peer helper explains that, although the system deems retrained workers to be employable and ends their compensation benefits, in reality, these workers are not competitive on the job market:

> I'm not a supporter of labour market re-entry. Here's your difficulty. If you have a low back injury that causes you to sit and stand every twenty minutes, how are you going to compete with the able bodied college students…? You can't. Can employers say that they're not picking you because you have an injury? No, they can't [because of human rights legislation]. So you put them through school. You put them through computer ghettos… They come out. They're 52 years old or older and they have a one-month job search and then they're going to be deemed [to be able to earn wages] at the training-level. (Irene, peer helper)

The vocational retraining system appears to not easily accommodate problems related to worker ill health, educational inability, and lack of competitiveness on the labour market. The logic of the retraining appears to be based on a model of a healthy, able, school-oriented and competitive worker. System cost efficiency considerations might mean a trade-off between the quality and speed of educational programs. These problems illustrate system process and logic conditions that can thwart the return of some workers to the labour market.

Workers' Compensation Problems

A key role of workers' compensation is to administratively manage the compensation claim: assess eligibility, manage costs, and oversee the process of return to work [50]. We found problems in how the workers' compensation system interacted with injured workers, which seemed to prolong and complicate claims. These were lack of face-to-face contact, communication by letters that were difficult for workers to understand, and the slow pace of workers' compensation decision-making about claim entitlements.

The standard way that the workers received information from workers' compensation decision-makers was via the telephone and letters. However, a problem with such modes of contact is that they limit communication. Letters preclude back and forth exchange that can clarify issues, and telephones do not allow for the development of rapport and understanding of subtleties in body language. Also, as Mary, an injured worker, explained, "Not everyone is good on the telephone." Formal letters can also be difficult for injured workers to understand, especially if they speak English as a second language. As this peer helper explains, workers who do not understand compensation forms might not respond appropriately, with the result that their benefits are cut:

> A lot that have immigrated here…they don't really understand what papers they're getting [from workers' compensation]. And a lot of times they aren't reading what they're requested to do. So if they don't send in a report or fill in a form or something then, naturally, they [the workers' compensation] cease benefits because they're [the worker] not cooperating and everything. And they don't realize that, maybe, it only took a phone call or whatever. So once that happens, then they have to turn around and do a whole bunch of stuff to get it back in [to restart benefits]. (Jennifer, peer helper)

Even when workers are English-speaking, low literacy might reduce their understanding of compensation procedures and commitments. For instance, Stella describes signing forms and agreeing to compensation conditions without understanding the documents:

> So I… showed her [adjudicator] the paperwork…… And then she's, sign here, sign here, sign here, sign this, sign this, sign this. …Like, I'm in pain, still. So I'm signing and on my way home, I'm thinking, maybe I signed something I shouldn't been signing. ….Now I don't even know if I'm, if I'm still gonna get a check at the end, because I signed these papers?… I don't know how that works. (Stella, injured worker)

This sort of workers' compensation communication to injured workers has the character of a business exchange, where workers are informed of their rights and responsibilities and are assumed to understand all of the information. However, the physical and emotional condition of workers following a work injury, and medications they might be consuming, can affect memory and concentration and render telephone and letter interactions ineffective. As this occupational health physician explains, effective claim decision-making requires direct and extended communication between workers' compensation and the worker:

> I think time with the provider [is a problem]. The [workers' compensation] providers are all time pressured…. There's good…evidence that patients… hear…very little of what you actually say to them. So… if providers had more time to sit and go through things, and…have a chance to kind of come… say a week later to…talk about it again, to answer any questions…. The Board has recognized it has communication challenges, but there's still something, I think, in not talking to [the worker]…it's always been done by voice mail, stuff like that, not actually talking to a person. I think those issues have been recognized, but I don't think they always follow through. (Lori, occupational health physician).

Incomplete communication with workers' compensation frustrated workers with RTW problems, who felt that they had been denied an opportunity to fully explain their

situation to the key decision-maker with the authority to approve or deny income benefits and medical support. As this injured worker explained, the lack of face-to-face contact with his workers' compensation decision-maker made him feel that he had not had a fair hearing:

> The doctor they talk to me. And their psychologist come talk to me and take time to do everything. Adjudicator never come and talk to me. I wanted to talk to her. ….. I'd like to have a meeting with her to explain to her everything what is there. I don't care if she give me [compensation] or not, but–So I just put my load down anyway, you know. So I feel better so make sure she knows anyway. And… never get a chance. (Karl, injured worker)

Other workers' compensation interface problems were delays in decision-making by compensation providers. Participants explained that workers who live from paycheck to paycheck begin to incur financial hardship immediately after injury with the first missed paycheck. Alex describes how workers waiting for an entitlement decision can begin to run out of money for basic needs:

> The biggest complaint is the length of time to be adjudicated. Because there's a big gap between payroll ending at the employer and the entitlement and checks being issued by the [workers' compensation]. And sometimes it's quite a big gap…[until] receiving the first check…Four to six weeks and even longer….[And the worker needs] money for the mortgage, …food… the kids. All that stuff. (Alex, peer helper)

When health problems are complex or indeterminate, benefits entitlement decisions can be further delayed. An example is Jesse, who suffered a chemical exposure at work, but did not report this to workers' compensation, because he was (ill) advised by his doctor to seek income support during his recovery time through an alternative state mechanism for jobless workers. When Jesse did not recover and required workers' compensation support, his initial non-reporting to them created bureaucratic complications. At the time of the interview, Jesse had been waiting five months for a decision from workers' compensation, a time period that he called "criminal":

> There's no sense of urgency, no sense of responsibility. When I see a circumstance like this develop, I can…see why people go postal. Like it's just criminal. …There's the requirement that a criminal get a fair timely expedient trial. We don't have that as an injured worker. I've only been off five months. I've probably got eighteen inches of paper. … I wouldn't even want to begin to count the number of phone calls I've had to make. (Jesse, injured worker)

Workers and providers described workers facing significant financial difficulties when they challenged a workers' compensation decision to deny benefits and were waiting for the results of the appeals tribunal. During this time, workers ran up credit card bills, became indebted to family or friends, and missed payments. If the appeals tribunal reversed a decision about non-entitlement, workers were back-paid compensation benefits, starting from the initial claim date. However, late payment of benefits could not always undo damage already incurred to the injured worker, such as severe strain and a damaged credit rating:

> And it doesn't matter whether the [workers' compensation] accepts the claim four months down the road and pays all the money then. I mean if you've already incurred debts or used your credit cards or whatever, you know, now you're sort of caught in a bit of a spin cycle that goes, "Holy geez. Now I, you know, on top of the injury now I'm" – [Broke] As I said [small laugh] there's a lot of psycho-social parts that come into this and - "Now I've got to worry about, gee I've got no money. I've just lost my credit rating." You know ALL those sorts of things. (Ben, human resources director)

Because of the financial strain associated with waiting for workers' compensation appeal decisions, recourse to justice through this system was not practically available to all workers. As the manager of this occupational health clinic explains, this system of waiting deters workers from challenging unfair decisions:

> Once we get into this process, there's no system that says, "Okay, we're going to fund this until we figure it out"….You're on your own until we figure it out, is the way the system works. And that in itself…dissuades a lot of people from challenging claims…. (Fred, manager occupational health clinic)

Workers generally felt that compensation decision-makers didn't understand how claim decision-making processes, including, seeming trivial issues, such as, waiting times and paperwork, could ultimately have physical and mental health effects on the worker. This injured worker explains that the process does not seem to fully recognize the human aspects of work injury:

> I think that… the compensation board and the adjudicators themselves need to be held responsible for the decisions that they make. Because…you didn't just wreck something of mine, you've ruined ME. It's not like an insurance company, "We wrecked his car we'll put a fender on it that's used and paint it and call it good." No, that's not what we're talking about here. (Paul, injured worker)

These workers' compensation system problems reveal challenges managing issues such as low literacy, English-language barriers, rushed adjudicators, worker inability to communicate because of loss and grief, and worker financial hardship reveal particular needs of workers' compensation communication. The workers' compensation communication approach appears to be based on a model of workers as rational, well, and with financial resilience. However, employing a model that does not reflect the issues that are concomitant with worker injury, can lead to ineffective or ill-informed decision-making procedures.

The Toxic Dose

These problems across different RTW systems—from the workplace, to healthcare, to vocational retraining, to workers' compensation decision-makers—can interact with each other and play a role in extended and complicated workers' compensation claims. In each situation, RTW problems existed in organizational logic and dynamics that slowed down or prevented workers' progress.

A common thread through all of the situations is found in simplistic RTW program logic. The problems detailed by injured workers and providers show how the logic of the system and RTW policy appear to rest on qualities and conditions that were not present among workers with RTW problems: easy, honest and open communication among different parties, harmonious workplace social relations, and workers who are literate, able, and excellent communicators. A second common thread identified in this study is how systemic challenges with RTW were buried in the bureaucratic, seemingly mundane, and social nature of problems: inappropriate modified work, injuries that are not reported, co-worker hostility, untimely and inappropriate referrals for retraining, physicians who are too busy for paperwork, workers' compensation decision-makers who communicate inadequately with workers by mail and telephone. When viewing our findings as a whole, it is possible to see how situations developed where flawed or incomplete communication between two parties led to further miscommunications with other parties until ultimately, the information on which claim decision-making was based was far removed from the initial situation. We called this the 'broken telephone' scenario. These gaps and miscommunication between RTW parties can be almost invisible to researchers and decision-makers and, yet, this study shows how they can have important mental and physical consequences for injured workers. This is because inadequately informed benefit entitlement decisions can result in denial of income and other support benefits to workers, who, can then, suffer financial and mental strain and deteriorating health conditions.

Although workers' compensation records show that most claims for workers' compensation are relatively brief [51], we propose that underlying system problems can contribute to the predicament of those workers to suffer RTW problems and have extended claims. We suggest that system problems such as 'broken telephone' miscommunications and simplistic RTW program logic can overwhelm an injured worker, creating a 'toxic dose' that leaves the worker with more damage than was caused by the initial injury. We characterize the toxic dose as the damaging effect on a worker of a confluence of system problems in the context of a system that does not recognize or lacks adequate safeguards against such problems. It is possible that many injured workers experience some system problems during the RTW process and are able to cope with them. We propose that a minority of injured workers have the misfortune to find themselves at the intersection of a confluence of system problems that cannot be adequately addressed by individual resources or coping skills. Such workers become damaged and dependent on claim benefits for periods far longer than expected for the injury. A toxic scenario related to system problems is described by Peter:

> There's a lot of people who become chronically ill and depressed and just forget about getting them back to work, you know, they just can't handle it any more. And I've often felt in a lot of cases that, had the Board been reasonable at an early stage, a lot of these people could have been rehabilitated earlier… If their claims hadn't been denied. And then denied unreasonably. You know, the person gets his back up, then he gets depressed because he's broke, and he can't…pay the rent and stuff. They get depressed. It just adds to their pain. It drags on for year after year to appeal. The time I won the appeal in a lot of cases, the person's totally unable ever to go back to work. And… a number of doctors have pointed that out repeatedly to the Board, you know. Give her or him give them the health care treatment now. You know. Give them the rehab now! And you will not become chronic pain. Well, they start screwing around, "No, it's this or that", you know. "We don't have enough evidence on that, and we don't agree with that," and blah, blah, blah, blah! And it drags on for a couple of years and the person gets worse and worse and worse and worse. (Peter, worker legal advisor)

System problems can appear insurmountable to workers, and some do not have the skills, energy or appetite to fight what they see as a 'David and Goliath' situation vis-a-vis the workers' compensation system. This injured worker describes peers who, instead, went to welfare, consumed excessive medication in order to keep functioning, or went "out behind the barn" to commit suicide:

> I've seen people in the past that had problems with [workers' compensation], and their claims got all foo-barred, and they just give up on it. Give up on it. Go on welfare, they don't care. Instead of going to Compensation, and fighting them to get their money back… they either give up, they go on welfare, or they take the easy way out and go out behind the barn, you know? …. And, well, I've seen a lot of guys that just, the fuck with it, and went back to work, doing whatever they were doing, just, popping pills like a son of a gun to keep going, and all they're doing is killing themselves. You know, instead of fighting the system, too scared to. (Hal, injured worker)

Discussion

An Enduring Problem

This study reaffirms existing research findings about workers' problematic RTW experiences and unites them under a broad explanatory framework of the 'toxic dose'. As has been found in previous studies, RTW process problems exist in communication and liaison problems among workplaces, healthcare providers and workers [14, 15, 17, 52]. Studies have also shown that workplaces might offer inadequate accommodation to the returning worker [4] and compensation systems can be unresponsive to workers and require excessive complicated paperwork [16, 53]. Also, compensation claims can be complicated by evidence-requirements, especially when health problems are invisible or indeterminate [23]. It has been observed elsewhere that the workers' compensation system can have damaging effects on injured workers [54–56]. Comments, such as the following by Feuerstein made almost 15 years ago, suggest that system problems have had damaging effects on workers over time, and in jurisdictions beyond that included in the present study:

> It is rare for those involved in the evaluation and treatment of injured workers within the workers' compensation system not to treat patients with heightened levels of distress fuelled by the workers' compensation system. This distress needs to be evaluated and addressed, not ignored, avoided, or presumed to subside over time (p. 2–3). [34]

The value of this study is that it extends existing findings by considering the pathway of RTW decisions and behavior across different systems, identifying common mechanisms of RTW problems in system logic and processes, and basing findings on the accounts of both workers and different kinds of providers. We draw attention to the impact of processes that are difficult to capture in RTW research and appear mundane, such as reporting, form-filling, letters and timelines. The relevance of mundane aspects of everyday interactions between ordinary people and institutional actors, which can easily escape the gaze of policy makers and researchers, has been identified in other fields [57–59].

The Problem with a Consensus-Oriented Lens

Although details of RTW problems differ across workplace, health care, vocational rehabilitation, and claims systems, we identify a common generative mechanism in simplistic RTW program logic that does not adequately anticipate or address system barriers and inequalities. Generative mechanisms are underlying conditions that produce events, rather than events themselves [41]. The model of workers and social exchanges underlying RTW program logic appears to rely on what sociologists call a 'consensus' focus on social exchange and organization [60]. Consensus-oriented models emphasize social cohesiveness, common interests and morality. They assume that social groups will naturally function to work together in a dynamic equilibrium [61–63]. Indeed, a systematic review of RTW literature found that RTW was dependent on the goodwill and creativity of a complex set of actors [52]. Studies employing a consensus lens refer to the need for stakeholders to focus on "common ground" and identify "shared goals" [64]. Information, such as that on Ontario's workers' compensation website, emphasizes the mutual benefit of RTW to different parties:

> Both you [worker] and your employer benefit in cooperating in your early and safe return to work. You benefit by restoring your source of income and staying active and productive… Your employer benefits by minimizing the financial and human costs of your injury or illness. [65]

While laudable, consensus goals can be narrow. They tend to focus on end-point targets and shift attention away from process challenges, such as the uneven pathway between goals, actions, and change. A problem with the consensus lens is that a focus on harmony fails to address everyday realities of social misunderstandings and conflict. Frustration about a lack of focus on system conflict problems was evident in Feuerstein's above quote when he added: "This [injured worker] distress needs to be evaluated and addressed, not ignored, avoided, or presumed to subside over time."

In this study, we identify a common 'consensus' logic in each RTW context in communication and policy frameworks that idealistically assume agreement and coordination: in caring and cohesive workplaces, healthcare providers who readily donate energy and time to workers'

compensation demands, vocational retraining that assumes healed, education-ready and economically competitive workers, and rational and literate workers who are well enough to understand and learn workers' compensation rules and procedures. The assumption that such conditions are present and workable depends on optimistic notions about the benign nature of knowledge, communication and power among RTW parties. We suggest that an underlying generating mechanism for RTW problems lies in simplistic RTW policy and related power and social relations that direct little scrutiny to provider actions and decision-making [24, 66].

A Critical Lens on RTW Problems

How can policy and processes be realigned to better benefit injured workers? The answers might not lie in approaches such as stakeholder consensus meetings, but, rather, in a new way of viewing RTW systems. We propose that a paradigm shift to a 'critical' lens for understanding issues and providing solutions might help to identify and address fundamental problems in RTW. Unlike consensus models, critical theory approaches address inequalities in resources and power, and consider vested interests among different stakeholders [61, 67, 68]. Studies of competing stakeholder interests and needs have the potential to address difficult problems and open new doors to solutions. For instance, Melles and colleagues' [69] study of Canadian patients and RTW professionals found that stakeholders in the workers' compensation system had competing goals and defined 'success' differently. They conclude that recognition of divergent stakeholder goals is essential for effective RTW goal setting. Stahl and colleague's [70] recent study of stakeholder coordination for return to work in Sweden similarly found that RTW cooperation was undermined by conflicting organizational imperatives of different parties. Although goals appeared on the surface to be mutual, they actually engendered conflict among stakeholders because of competitive meanings and values. Studies, such as these, offer a starting point for improved approaches to RTW cooperation in attention to alignment of organizational incentives for cooperation. Findings of this nature can be difficult to address because they require interventions that are more complex than, for instance, those that focus on helping individual workers. Although, it can seem beyond the purview of the research community to influence organizational structures, we do have the ability to identify and draw attention to these issues.

In the context of RTW problems described in this paper, a critical lens applied to the organization of RTW would prompt attention to actions. For instance, do employers give workers a fair chance to access their rights to claim for workers' compensation and to return to work? How do workers' compensation case managers actually gather information and make decisions about claims? This approach could consider worker vulnerability and fear of speaking out against authority figures, such as, employers and workers' compensation decision-makers. The issue of worker vulnerability is of growing importance in the context of increasing job insecurity and declining worker power in the changing economy [71, 72]. Worker fear of reporting workplace accidents and RTW problems because this might threaten their job security, has been reported across jurisdictions, including Australia [6, 53, 73], the United States [27, 37, 38, 74] and Canada [5, 39]. A problem-solving lens that recognizes worker vulnerability could direct attention to the potential long-term benefits of worker advice and representation during the claims and recovery process.

A critical lens as applied to the RTW process, might also draw attention to the issue of social justice. In this study, workers referred to process problems, such as, a lack of a "fair hearing" and to waiting times that were "criminal." According to Sullivan and colleagues [75], worker perceptions of procedural injustice and irreparability of loss following work injury, can present strong psychological barriers to rehabilitation progress. Indeed, our model of the 'toxic dose' identifies how physical and mental health deterioration can occur when the claim process does not unfold in the expected fashion. This fueled anger and frustration among not only workers, but also, providers. Providers felt that system barriers thwarted their efforts to manage the worker, and workers felt that processes were not designed to support their needs. Sullivan and colleagues encourage attention to, not only the worker, but also the environment that fuels the workers' feelings of injustice:

> It is important to consider that perceptions of injustice are not merely mental constructions of the injured individual but might emerge from a reality that is characterized by some degree of injustice. In other words, the individual's perceptions of injustice might be completely justified…..Intervention approaches that target both environmental and subjective sources of injustice might yield the most promising outcomes (p. 260). [75]

System-focused survey instruments that measure organizational justice in the context of returning to work [75–77], might help to identify organizational barriers across larger samples and to target resources. There has also been a call for process and outcome standards, as well as sanctions, for violation of those standards that could be directed at providers, insurers and their representatives [35]. In the Ontario system, RTW sanctions exist for employers in experience-rated premiums and for workers

in benefit withdrawal. However, it is unclear if sanctions exist for service breaches among providers of workers' compensation claim management, worker retraining, and healthcare.

A focus on social organization of RTW that considers problems of social conflict might identify and provide solutions to interaction barriers between workers' compensation and healthcare providers. Research has shown that physicians are reluctant to follow recommended guidelines for return to work that advise workers to continue with their regular activities [78]. It has been suggested that this is because physicians do not make workplace visits that would allow for a full understanding of the worker's RTW requirements [79], their pay structure does not allow for the time needed for RTW planning, they are legally cautious and reluctant to take RTW risks [80], or because they resist the role of 'medical police' [81]. Our focus on RTW policy and mundane system requirements offers further insights on physician interaction with RTW systems. We suggest that healthcare providers have their own needs and interests and that structures and incentives to motivate them are lacking—in available time, adequate compensation, and recognition of clinical judgment. In this study, and others, it has been observed that these issues can actually lead healthcare providers to avoid injured workers as patients [24, 35].

Essentially, a critical lens applied to the organization of RTW considers the need for greater oversight of reported cooperative actions of system parties and assumes the requirement for strategies to overcome barriers to cooperation. In focusing on barriers, new insights are gained into problems that can open fresh pathways to the management of RTW. A RTW framework that moves away from assumptions about consensus and that can grapple with power and knowledge inequalities among workers and other parties, might be better able to measure the 'costs' of different RTW approaches. In the case of the RTW problems described in this study, we draw attention to the personal, financial, and system efficiency costs of the 'toxic dose' to both workers and RTW systems. It is well documented that the longer a worker is absent from work following a work injury, the worse his or her physical and mental well-being [82–84]. However, the complex pathway from initial work absence to later physical and mental ill health has not been fully explored. This study proposes that the toxic dose, or delayed RTW and poor worker health outcomes, occurs in part when workers encounter a confluence of rather mundane, almost invisible barriers in RTW systems in workplace, health care system, retraining programs, and claims process. Therefore, an avenue to improving RTW outcomes might lie in approaching the situation in a way that pays serious attention to how RTW processes are carried out and related long-term outcomes.

Strengths and Weaknesses of This Study

This qualitative study was exploratory and open-ended and allowed us to examine a wide range of system processes and social relations. Our methodology did not restrict us to previously identified, measurable variables; it allowed for an inductive, ground-up approach to examine complex causal linkages between worker experiences and system procedures. Key strengths of the study are the purposeful sampling process, systematic data analysis approach, and robust findings themes. The sampling process ensured that workers were recruited from a range of sources and locations, and that a wide variety of providers were interviewed. The analysis followed systematic procedures of iterative data gathering and analysis with an experienced team of qualitative researchers. The study shows a robust concurrence between injured worker and service provider accounts. Although we had expected that differently situated social actors would have different views on RTW problems, we found that providers echoed and re-enforced each others' and workers' accounts. Qualitative studies aim for transferability rather than statistical generalization. We propose that this study offers starting points for extrapolation to other similar RTW policy settings and also for quantitative analyses. This study is not designed to measure the frequency of the RTW system problems. However, it does describe problems that were recurring themes in our broad sample of injured workers with RTW problems and a range of related providers. The findings of this study have been developed into a RTW decision-maker guidance document [85] that has been recognized by a variety of stake-holders and taken up for internal use by Ontario's workers' compensation claim decision-makers. While an information guide can raise awareness of RTW problems, it addresses only the surface of a more complex situation rooted in RTW policies and processes.

Conclusion

To date, there has been little understanding of the role of system-level problems in relation to prolonged workers' compensation claims. This study links workers' and providers' accounts of problematic RTW experiences to policies and procedures that seemed unable to facilitate the recognition and management of these issues. It provides an explanation for the poor health of workers with long-term workers' compensation claims in a confluence of seemingly mundane, but dysfunctional RTW processes, that can slow the course of a claim and accumulate to create a damaging 'toxic dose' to some workers. We propose that a 'consensus' paradigm informs RTW policy and procedures and involves assumptions about benign, harmonious social

relations and communication processes among RTW parties. This approach cannot easily accommodate problems related to power inequalities and social conflict that we found in situations of workers with problematic and long-term claims. In identifying the potentially damaging role of system processes in RTW problems, we draw attention to issues of procedural fairness and competing stakeholder goals. We propose that new solutions to RTW problems might emerge from a critical lens on social relations that recognizes and plans for differences in resources and interests among RTW systems and players.

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