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Exploring the perspectives of key stakeholders in returning to work after minor to serious road traffic injuries: a qualitative study

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Abstract

Purpose This qualitative study conducted in Queensland, Australia aimed to explore various stakeholders' perspectives on (1) the barriers and facilitators of Return to Work (RTW) for injured persons following minor to serious Road Traffic Injuries (RTI) in a fault-based scheme, and to investigate the changes needed to better support RTW following RTI.

Methods The study was performed using the Interpretive Description methodological approach. Data were collected during interviews (n = 17), one focus group (n = 4), and an open-ended survey (n = 10) with five categories of stakeholders: treating health providers, workplace representatives, legal representatives, rehabilitation advisors, and insurers. Participants were eligible to participate if they had at least one year of employment history in their respective profession in Queensland, Australia, and were experienced in assisting the RTW of people with RTI. Thematic analysis was used to analyse the data.

Results Seven themes were extracted reflecting the barriers and facilitators of RTW along with stakeholders' recommendations to address these barriers. These themes were: (1) knowledge is power; (2) stakeholder expertise; (3) early and appropriate treatment matters; (4) insurers could do better; (5) necessity of employers' support; (6) fix the disjointed system; (7) importance of individual factors pre- and post- injury. The main barriers identified were stakeholders' insufficient communication and knowledge on RTW process following RTI.

Conclusions Individual and system barriers identified in this study suggest that RTW after RTI occurs in a complex system requiring the commitment of all stakeholders. This is particularly important for managing knowledge-related barriers by provision of high quality and easily accessible information about the RTW process, disability schemes, and the nature of RTI.

Keywords Return to work · Traffic accidents · Insurance · Qualitative research

Introduction

Road traffic crashes (RTC) can result in disabling injuries with lasting impacts. According to the World Health Organization's global status report in 2018, RTC cause more than 50 million injuries each year (1). In 2017, injuries subsequent to RTC were identified as the fifth-leading cause of disability worldwide (2), placing the individual at risk of psychological, physical, and social disability (3–5). Furthermore, these injuries can impose a large economic burden on societies. The Australian Bureau of Statistics estimated that recovery from road traffic injuries (RTI) in 2016 accounted for the greatest proportion of the RTC costs at AU$13.58 billion (6). Employment loss increases the costs associated with RTC, with workplace disruption following RTI estimated at AU$146.7 million in 2016 (7). The impact of RTI on work outcomes is highlighted in a recent Australian study, where approximately 50% of participants with mild to moderate RTI were not in sustained employment two years following their collision (8). Given that minor to serious injuries constitute the greatest proportion of RTI (9), adopting strategies that support people with less severe

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injuries to return to work (RTW) has the potential to significantly reduce the societal and individual costs.

RTW is associated with improvements in self-efficacy and confidence, decreased reliance on social support and the preservation of pre-injury work skills (10). What is known about the factors associated with a successful RTW is largely based on studies conducted with work-related injuries. However, there are key differences between work-related and RTI in terms of their nature, vocational outcomes for injured persons, the legislation, benefits and eligibility for access to compensation (8, 11–14). For instance, in Australia, individuals with work-related injuries are eligible for income replacement and modified or alternative duties under their specific jurisdiction's workers compensation scheme. In contrast, employers of people with RTI are not obliged to facilitate RTW and the injured person's access to financial support will depend on their 'fault' status in the crash. This means, if the crash happened in an Australian state which operates on a 'no fault' scheme (e.g., Victoria and New South Wales), the injured person (regardless of fault) can access RTW services and wage replacement through their insurer. In contrast, if the person is injured in Queensland which operates a common law 'at fault' Compulsory Third Party (CTP) scheme, only the 'not at fault' party is eligible to receive health care services and the financial support is not provided during the claim but might be reimbursed at the end of the claim to recover the expenses of the injured not at fault person. Most injured persons have up to 9 months to report an injury and are entitled under the CTP scheme to legal representation if not at fault. The majority of studies conducted in Australia to date have investigated RTW issues within a 'no fault' scheme (10, 11, 15–17). There is strong evidence to suggest that different compensation schemes can significantly influence the social and working life of injured persons and subsequently the recovery from RTI (18, 19). Data collected in jurisdictions operating under a 'no-fault' scheme might not be generalizable to regions operating under an 'at-fault' system. It is therefore important that future research is conducted in the 'fault-based' system to deeply understand the factors impacting the RTW process following RTI for persons in this compensation system.

Several individual, physical, and psychological factors have been identified as factors that can facilitate or impede a successful RTW after RTI (20). These factors have largely been identified from cohort or cross-sectional studies that used pre-determined variables such as sociodemographic and injury-related factors (15, 18, 21–24). While these studies have identified factors influencing RTW, much of the research has failed to introduce effective solutions as the majority of identified factors have been unamendable. Qualitative methods have been suggested as being important in identifying unknown and amendable factors (25–27). For example, a qualitative study by Murphy et al. (27) in Australia, exploring insurers, rehabilitation providers, and solicitors' views on RTW issues in the fault-based scheme, identified several modifiable RTW barriers such as competing stakeholder agendas, the nature of the partnerships between RTW stakeholders, and the broad confusion stemming from the interplay of complicated systemic factors. Despite the influential role of the qualitative approach on this issue, to our knowledge, few studies have investigated these factors using qualitative approaches with the views of stakeholders often neglected. A RTW stakeholder is defined as "a person, organization, or agency that stands to gain or lose based on the results of the RTW process"(28). Hence, there is a need for qualitative studies to address this gap by exploring factors influencing RTW from involved stakeholders' perspective.

Given the paucity of qualitative literature exploring RTW for people injured in RTC, and limited research exploring the 'fault-based' jurisdictions in Australia, there is a need for further qualitative research to explore barriers and facilitators to RTW following RTI. Therefore, the aims of this study were to explore the perspectives of key stakeholders (treating health professionals, rehabilitation providers, work representatives, insurers, and solicitors) involved in supporting RTW after RTI in a 'fault-based' scheme in Australia on:

1. The barriers and facilitators of RTW for people with minor to serious RTI.
2. The changes needed to better support RTW after RTI.

Materials and methods

Design

This study used an Interpretive Description (ID) approach (29) and was conducted from a constructivist point of view, aligned with the ID which acknowledges the constructed nature of human experience (29). ID was developed for applied practice in health, aiming to generate credible and meaningful knowledge to inform clinical practice (30–32). This approach was chosen as the study aims to work towards improving practice by exploring the barriers and facilitators of RTW and identify stakeholder perspectives on what support and resources are needed to improve RTW outcomes. ID values the subjective and experiential knowledge of the researchers (30). In accordance with this feature of ID, researchers who contributed to this study were experienced health professionals in the RTW field and their perspectives were utilised in the study design, data collection,

and data analysis. Ethical approval was granted by The University of Queensland Human Research Ethics Committee (#2018001264).

Participants

This study forms part of a larger project where barriers and facilitators to RTW in Queensland, Australia, were investigated from the perspective of all involved RTW stakeholders. This study reports on findings from employers, treating health professionals, vocational rehabilitation providers, insurers, and legal representatives. Injured persons perspectives were explored in a separate study.

A purposive sampling strategy (33) was used to recruit a diverse group of stakeholders. This variation in sampling is in line with the ID approach, as it allows researchers to explore the common and unique features of a desired phenomenon across a wide range of cases resulting in rich data (34). Participants were eligible if they had at least one year of employment history in their respective profession/occupation in Queensland, and during that time had gained experience in assisting people injured in a RTC get back to work. To encourage participation, participants were informed that they had the opportunity to win one of four $100 gift cards as a token of appreciation for their participation in the study.

Participants were recruited via advertising on the websites of relevant organisations and associations, the employment networking website (i.e., LinkedIn) and known contacts of the research team. Interested participants who contacted the research team were sent a copy of the participant information sheet, consent form, and a brief demographic questionnaire via email. Eligible participants were then invited to attend a focus group or interview in person, via phone or videoconferencing depending on their availability and preference. To ensure a range of stakeholders were able to participate, the data collection approach was flexible to obtain a broad range of information (34), with participants being able to select their preferred method of focus group, interview, or a survey which included the same open-ended questions that were included in the interviews and focus group. As the research team received few responses from solicitors in initial recruitment efforts, and to address the legal aspect of the inquiry that remained largely undeveloped, interviews with medico- legal assessors were conducted.

One focus group and 17 in-depth semi-structured interviews were conducted from March 2019 to August 2020. Four insurance case managers attended a focus group, while others preferred face to face (n = 3) interviews, telephone (n = 5), or online (n = 9) interviews. The average duration of the interviews was 60 min, and the focus group was 90 min. Furthermore, 10 participants chose to complete the online survey.

Data collection

The interview guide Supplementary Material 1 was developed after reviewing the literature and piloting with a range of stakeholders from professions similar to the participants in this research. The interview guide included question on the role of their profession in assisting individuals with minor to serious RTI with their RTW; the process and strategies they use to help these people; and their impressions of the barriers and facilitators that affect RTW following RTI. Adjustments to the interview guide were made for different stakeholder groups and improvements made following pilot testing and initial interviews. Following the initial interviews and finalisation of the interview guide, participants who were interested in completing the online survey, responded to questions in the revised interview guide.

The focus group and interviews were conducted in collaboration by two members of the research team, including the lead researcher (MA), a PhD student with previous experience in rehabilitation sciences, and one of two highly experienced qualitative researchers in RTW practice (VJ and EG). All interviews and transcripts were audio-recorded and transcribed verbatim. Participants were contacted if further clarification was required. Supplementary notes were written during and after each interview providing a summary of key ideas where the principal researcher reflected on the interviews (35). Participants' anonymity was maintained during data collection, analysis, and reporting of findings. Interviews were therefore anonymised, and participants' numbers are used in the reporting of results. Responses from the online survey were exported anonymously.

Data analysis

Thematic analysis as described by Braun and Clarke was used for data analysis (36). The transcriptions and online survey responses were initially checked by one member of the research team (MA) for accuracy with the audio-recordings. Analysis of the data commenced on completion of transcription of the first three interviews so that insights developed could be used in the future data collection. The aim of coding was to explore categories and linkages in the data, and to move from patterns to relationships. The principle researcher (MA) and another member of the research team (TA) independently coded the first three interviews using an inductive approach (37). Then MA and TA met over a few sessions to review and refine the codes and code descriptions. This process of peer-checking increased the

trustworthiness of the research (38). All transcripts were then imported into NVivo (Version 12.0, QSR International Pty Ltd). Participants' responses to the open-ended questions were exported from the online survey and combined with the interview data in NVivo. The primary author then coded the data. Then all members of the research team reviewed and refined the emerged codes and code descriptions and came together to combine the codes into themes. This final process of peer-checking allowed the team to detect if the lead researcher had over- or underemphasized a point in determining the themes (38).

It is important that researchers constantly reflect on their own insight and perspective in order to demonstrate reflexivity (35). Therefore, to improve the confirmability of this study, reflexivity was maintained by the lead author who wrote notes in a reflective journal prior to, and during data collection and analysis (37, 38).

Results

In total, 17 stakeholders participated in the interviews, 4 attended one focus group and 10 completed the online survey. Details of the demographic characteristics of participants are summarized in Table 1. Participants who attended interviews and the focus group were similar to those who completed the online survey, with the only notable difference being that a small proportion of focus group and online survey participants were male (< 25%) whereas almost half of the interview participants were male (47%). Also, no legal representatives completed the online survey and only insurers participated in the focus group.

Table 1 Participants' demographic characteristics

Characteristics	Interviews (n = 17)	Focus group (n = 4)	Online survey (n = 10)	All participants (n = 31)
Age -years, Median (Range)	50 (28–65)	44 (28–48)	46(34–70)	47(28–70)
Gender, female (n, %)	9 (53)	3 (75)	9(90)	21 (67)
Work experience in RTIs -years, Median (Range)	20 (3–30)	17 (3–20)	14 (5–30)	16 (3–30)
Highest educational qualification (n, %)				
Bachelor	8 (47)	4 (100)	6(60)	18(58)
Postgraduate	9 (43)	-	4(40)	13(41)
Stakeholder group (n, %)				
Treating health professionals	6 (35)	-	2(20)	8(25)
Workplace representative	3 (18)	-	2(20)	5(16)
Insurance representatives	-	4 (100)	2(20)	6(19)
Vocational rehabilitation advisers	4 (23.5)	-	4(40)	8(25)
Legal representatives	4 (23.5)	-	-	4(13)

Seven themes were extracted from the analysis reflecting participants' perspectives on the barriers and facilitators to RTW, and recommendations to address RTW barriers. These were: (1) knowledge is power; (2) stakeholder expertise; (3) early and appropriate treatment matters; (4) insurers could do better; (5) necessity of employers' support; (6) fix the disjointed system; and (7) importance of individual factors pre- and post- injury. In each of these themes the barriers and facilitators and related recommendations are discussed together. Figure 1 outlines the themes and related subthemes of the study.

Knowledge is power

All participants discussed topics around the theme of 'knowledge is power', describing that knowledge can empower RTW stakeholders and improve work outcomes. Participants discussed that from their perspective, other stakeholders lacked knowledge in a range of areas related to RTW which they believed was a barrier for RTW. Because of the broad range of knowledge-related barriers identified in this study, an overview of this theme will be provided here. The two main knowledge areas discussed were stakeholders' limited knowledge of the CTP scheme and the importance of RTW in promoting recovery for people with RTI.

Limited knowledge of the CTP scheme

The majority of participants reported that Australian society as a whole is insufficiently aware of the CTP scheme. Participants felt that this lack of knowledge about the CTP was a result of the limited or poorly presented information available to RTW stakeholders, including injured persons.

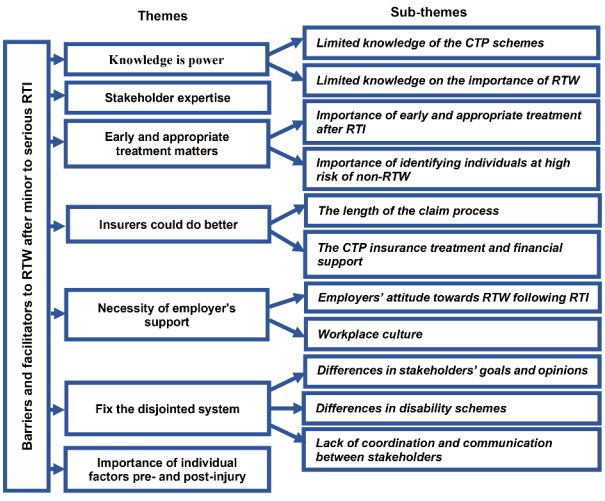

Fig. 1 Themes and sub-themes emerged from data

Overall, they felt that this led to delayed access to treatment and vocational rehabilitation services. For the injured person, an insurer explained that:

> *"Injured people don't know, they don't understand the scheme, they don't understand what they're entitled to, … they often are in the dark for the first bit, and I don't think there's good education around it*." (Insurer 1, focus group)

Some participants also indicated that the timing of receiving information is important. Most stakeholders suggested that information should be received prior to or immediately after the accident. Participants also recommended that mentoring or coaching injured persons could facilitate RTW by familiarising them with the process, terms, and available resources.:

*"For the workers I think there's scope to try and empower them in the system. At the moment our systems squish them rather than empower them… what are the best ways of doing that? It would seem that mentoring, and coaching are probably the best way." (*Occupational physician 2, interview).

Some stakeholders also discussed that employers' lack of knowledge of available support in the CTP scheme and the benefits of re-employing people with RTI is a huge barrier in RTW due to concerns of re-injury and liability. It was suggested by interviewees that educating stakeholders, in particular employers on available support and resources could encourage lead to better RTW support for people with RTI.

Interviewees also discussed that treating health professionals often have limited knowledge of the CTP scheme and are unaware that the local fault-based scheme does not provide rehabilitation or financial support for at-fault injured people. An insurer explained this:

"I think they [GPs] should realise we don't pay wages sometimes, because I've noticed that is a huge thing when I call a GP and be like, they [injured person]'re off work, you know how long? And he's like it's okay, you're supplementing their pay, and I'm like no, we're not". (Insurer 3, focus group)

All stakeholders agreed that health professionals needed to become familiar with the different disability support schemes (e.g., CTP, WorkCover, etc.) before graduation from university, or via accreditation programs after graduation. A GP explained:

"They [insurance companies] might be able to provide some sort of information sessions or training sessions to make us [GPs] more familiar with the range of services they are providing. I have not seen this happening very easily." (GP1, interview).

Limited knowledge on the importance of RTW in recovery after RTI

The other key knowledge related barrier that was commonly reported was that stakeholders including injured persons are not often aware of the health benefits of RTW after RTI and that delaying RTW may result in eventual job loss. It was discussed that health professionals, in particular GPs believe that to facilitate their patients' recovery requires more time off work. An Occupational physician explained:

> *"Most doctors don't get people back to work soon enough; they're almost too soft. I call it patient advocacy. They want to help the patient and give them weeks and weeks off, and actually it doesn't help them; it hurts them."* (Occupational physician 1, interview)

Most interviewees believed that treating health professionals, particularly GPs as the first point of contact, should have access to more appropriate education and information to ensure that they understand the importance of RTW following injuries and the unique consequences of RTI. Participants also believed that GPs are responsible for educating people with RTI about the benefits of recovery at work. However, they are less likely to do this either because of their own limited knowledge or time constraints. It was suggested by some participants that this training on RTW and recovery could be delivered online, so it is available immediately after injury for all people including those living in regional and remote areas.

Stakeholder expertise

All participants indicated that the expertise of a range of stakeholders is important in facilitating RTW of people with RTI. Most participants provided examples of how an inexperienced stakeholder had negatively impacted the work outcomes of their client. These participants discussed the types of skills expected from different stakeholder groups, including insurance case managers, vocational rehabilitation advisers, and RTW coordinators. Most participants reported that case managers' inadequate experience in understanding RTI and overseeing the entire claim process can result in a poor work outcome:

> *"Often the person who's assessing the claim, the person who is trying to be that front face interacting with the injured worker, they don't have any background medical knowledge*". (Medicolegal Assessor 1, interview)

Most interviewees suggested that recruiting case managers who understand RTI, have counselling skills, and are able to coordinate the involved stakeholders can address this issue. A health provider described "*a good case manager*" is someone *"who's checking in and making sure that everyone's on the same page"*. (Physiotherapist 2, interview) RTW coordinators within workplaces were other key stakeholders whose expertise was considered important in supporting RTW after RTI. Participants reported that sometimes RTW coordinators' lack of experience in providing injured persons with meaningful work rather than any job available in the workplace can frustrate the injured person and impede RTW.

Some participants also identified the lack of experienced vocational counsellors as a significant barrier to RTW after RTI. An experienced rehabilitation provider was described as someone who "*has got training in rehabilitation"*, "*has counselling skills*", "*does labour market analyses*", and "*administers standardised vocational assessments tools to understand injured persons aptitudes, interests and motivations".* (Rehabilitation adviser 1, interview)

Early and appropriate treatment matters

All participants emphasised the importance of treatment approaches on the RTW outcome. Two main topics were discussed within this theme. These were providing injured persons with early and appropriate treatment and identifying individuals with higher risk of non-RTW through early physical and psychological assessments.

Importance of early and appropriate treatment

All stakeholders identified misdiagnosis and mistreatment as one of the main barriers of RTW. They explained that "*uncontrolled or badly controlled*" symptoms could increase the chance of ongoing pain which can subsequently result in "*physical and psychological complications*" (GP1, interview). Additionally, many participants reported that sometimes health professionals, particularly GPs are not providing work-focused treatment for those with RTI as they consider RTW as a treatment goal rather than an option in the recovery plan. Some believed that this happens due to the medical management model in the CTP scheme. They mentioned that in this model, the GP drives the rehabilitation process who may not be best placed to support RTW:

> "*there's a medical model in place and the therapists who are privy to the most intimate knowledge of the workers, who spent the most amount of time one-on-one with the workers is sadly superseded in the current model by a GP who, with all due respect, has minimal minutes with the patient, doesn't get out to the workplace and is unable to really go into all of the complex variables that if not adequately explored will lead to a failed return to work outcome."* (Rehabilitation Adviser 4)

Furthermore, many stakeholders believed that because people with RTI often suffer from psychological issues post-crash, they may need early psychological intervention to support RTW and driving, however, the role of the psychologist is often underplayed, in particular by GPs. A physiotherapist said:

> "*I don't think the GPs recognise it straight away, some do, some are very good, some don't though, and many don't, ah, they don't recognise the importance of the psychologist* ". (Physiotherapist 3, interview)

Importance of identifying individuals at high risk of non RTW

The majority of participants believed that earlier physical and psychological assessments would help people RTW sooner by identifying those at risk of non-RTW. The importance of screeding tools to meet this need was highlighted. For example, one of the participants identified the "*Orebro Musculoskeletal Questionnaire*" as a screening tool and believed that early physical and psychological assessments could "*allow for a collaborative approach with the right set of providers*", "*open communication*", and "*rapid referral*" which facilitates RTW. (Medico-legal assessors 1, interview)

Insurers could do better

The majority of participants discussed barriers associated with the CTP insurers' role. The topics that were most frequently discussed were the length of the claim process, and the amount of treatment funded by the CTP insurer and financial support.

The length of the claim process

Most participants reported that the claim process can be very time consuming because of liability issues and that this can prevent RTW. In the focus group with insurers, participants discussed that the claims process is lengthy often because of injured persons' delay in lodging the claim. This contrasted with solicitors' comments that the claim process

itself is very time-consuming as insurers spend so much time investigating the claim. They highlighted that the long process of determining liability means that those who are out of pocket would not be able to receive proper treatment on-time, resulting in physical, psychological, and vocational difficulties in the injured persons' life. A solicitor explained:

> "*We see issues with insurance company in taking lots of time to do initial investigation and approve funding. In some cases, the claimants can't get the rehabilitation that they need. So that's going to delay the time that they go back to work*." (Solicitor 2, interview)

Another solicitor believed that injured persons who can receive rehabilitation early *"won't face psychological issues after the accident, …that's not only they're physically injured they usually face some psychological issues."* (Solicitor 1, interview).

The CTP insurance treatment and financial support

The other topic discussed by participants was the importance of receiving support for treatment from the CTP insurers in RTW. Most treating health professionals and solicitors reported that the CTP insurer often fails to provide person-centred care for injured persons because of their tendency to minimise claim costs by restricting treatment time, which results in disrupted rehabilitation and impedes RTW. One physiotherapist stated:

> *"Cause they [CTP insurers] just want minimal treatment, quicker return to work, less help.".* (Physiotherapist 2, interview)

However, all insurers disagreed with this view and mentioned that they provide sufficient treatment for all injured persons. They believed that over-servicing by some treating health providers is a concern in the CTP industry. An insurer stated:

> "*If you look at incentives from treaters, the quicker this person gets better, the less money they make which, I'm not saying that's their primary goal but, it's a business".* (Insurer 1, focus Group)

Participants suggested providing early access to treatment regardless of fault status could facilitate RTW following RTI in Queensland. Furthermore, some insurers and injury management advisers suggested that insurers having early and direct contact with injured persons before legal involvement can facilitate RTW. Participants also suggested the CTP insurers should consider some financial incentives for health providers who treat injured persons to get them back to work. It was suggested by insurers that it would be good for health professionals to receive "*half now, half later funding, when you reach your goal [RTW]*."

Another topic commonly discussed was the importance of supporting injured persons financially during the claim process. It was discussed that as all people with a RTI in Queensland are not financially supported by their CTP insurer during the claim process, those who have increased financial pressures with families to support, are more likely to RTW earlier than expected, increasing the possibility of re-injury at work and repeated RTW failures. On the other hand, those who are self-employed or are financially secure might stay off work longer. A physiotherapist explains:

> "*if they've got young kids and they are stressed about getting back to work, or they've got a mortgage and they're not sure how they're going to pay it if they don't get income protection*". (Physiotherapist 3, interview)

Participants suggested that financial support should be offered to all persons with RTI to reduce their stress, and subsequently lead to a more successful RTW outcome.

Necessity of employers' support

All participants discussed the role of employers' support in facilitating RTW for people with RTI. The main topics related to this theme were employers' attitude towards RTW and the workplace culture.

Employers' attitude towards RTW following RTI

Most participants believed that some employers do not expect people with RTI to RTW until they are fully fit. An occupational physician explained:

> "*They [employers] always say, oh no, we want them [injured persons] 100 percent fit or not at all*". (Occupational physician 1, interview)

Some participants believed that this attitude was mainly related to employer concerns regarding liability if the employee was injured at work which would negatively impact their workers' compensation insurance premiums. Insurers and solicitors believed that another reason for having this attitude is that in Queensland employers do not have legal obligations to provide RTW support for employees who are injured in a non-work related RTC. An occupational physician summarised employers' attitude towards RTW:

"*Either they're just going to do what the law says they have to... And the second group do it because they think they'll get an economic benefit, so the productivity argument."* (Occupational physician 2, interview)

Workplace culture

Most participants also believed workplace culture is important in supporting RTW. They discussed that injured persons are more likely to RTW if their workplaces are empathetic, accommodating, and understanding. In contrast if they are concerned that they will be accused of misrepresenting their symptoms, injured persons will be less likely to RTW.

Participants suggested the types of RTW support that could be offered by employers to people with RTI. These were supervisors' early contact with the injured person, accompanying the injured person to doctor appointments to better understand the impact of injury on the persons' role at work, flexibility around working hours and suitable duties, seeking alternative employment options within the workplace and emotional support from supervisors and colleagues. Some participants including insurers also recommended that to increase employers' contribution in supporting RTW, the CTP insurers could consider financial incentives for employers.

Fix the disjointed system

Almost all participants reported that the current RTW system is disjointed. The most salient issues discussed were differences in stakeholders' goals and opinions, and a lack of coordination and communication between stakeholders.

Differences in stakeholders' goals and opinions

All participants agreed that to achieve the desired work outcome for people with RTI, all involved stakeholders should be on the 'same page'. In contrast, most participants reported differences in stakeholders' goals and opinions. For example, most participants believed that the goal of insurers is to minimise the claim costs, whereas solicitors' aim is to maximise the pay-out for their clients, and that the employer wants the injured persons to work when they are fit. The health providers and rehabilitation counsellors' goal were discussed to be focused on achieving the best functional outcomes in a reasonable time. As an insurer explains:

"As an insurer, the claims cost aspect would be significant in terms of whether it's a good or a bad outcome, and it would have to be the opposite for a solicitor to maximise their client's payout. We've got a role as an insurer, what you hope is that the rehab providers are objective, and evidence based and driving return to work." (Insurer 1, focus Group).

Lack of coordination and communication between stakeholders

Some participants mentioned that the current RTW system lacks coordination between key stakeholders and is not as straight forward as it should be. Participants suggested this occurs because the current system does not have a clear definition of each stakeholder' role in RTW. An occupational physician explained:

"*For a GP, they're a patient advocate, so we need to stop pretending they're anything else, and we need to get greater clarity between the role of the GP and the role of the vocational rehab providers and get that to work much better".* (Occupational physician 1)

Participants all suggested that the best strategy to join the elements of the system is to use a team approach and facilitate communication among stakeholders. Participants suggested that greater coordination of all the stakeholders involved in supporting a person to RTW is required, with some suggesting that insurers would be well placed to do this as they provide funding for treatment. However, most participants stated there is a need for someone who understands RTI to coordinate the team such as GPs. In relation to coordination, greater communication between stakeholders was reported to be needed, as a rehabilitation advisor discussed:

"*I think especially where someone's got a lot of stakeholders, having a case conference, team meeting things like that. So that everybody's kind of aware of everybody else's goals, because realistically it's the one person". (*Rehabilitation advisor 1, interview)

All participants agreed that this strategy could establish a relationship of trust between stakeholders and fix the "*trust crisis*" (Rehabilitation adviser 4) in this system.

Difference in disability schemes

All participants believed that RTW can be hindered by differences in disability schemes across Australia. The majority believed that RTW rates after RTI are higher in the workers' compensation scheme compared to the CTP scheme in Queensland. They explained that the reason for this is that

the workers' compensation scheme has a structured RTW legislation and provides clearer, faster, and more streamlined RTW services for individuals with work-related RTI. A physiotherapist explained:

> *"Within workers comp schemes return to work is to be almost sole-focused. It's certainly the number one focus and so, often, those insurers are very motivated to fund services to facilitate a return to work. Whereas in the CTP space, it's more of a secondary thought, in my experience, and so the process can be a little harder.". (*Physiotherapist 3, interview)

Furthermore, participants with experience working in other states compared the availability and accessibility of RTW services across Australia. For instance, these participants believed that injured people are more likely to RTW in Queensland compared to the Northern Territory because of the availability and accessibility of more service providers in Queensland. Additionally, many discussed that people living in those states operating a no-fault scheme have greater support for RTW and are thus at an advantage.

Importance of individual factors before and after the injury

Some participants discussed that individual factors such as the pre- and post-injury physical and psychological health status of injured persons, and family support can impact RTW of people after RTI.

Many participants believed that people with serious or multiple injuries and higher levels of pain might experience more difficulties getting back to work because of reduced function, medications that may impair performance at work, and having difficulties adjusting to their injury:

> *"Some typical ones [barriers] are maybe they're struggling to adjust to their condition. It's impacting them so they're having difficulty managing their pain".* (Rehabilitation advisor 3)

Participants also discussed that most people in society including injured persons and their employers are less likely to understand some RTI such as whiplash compared to more obvious injuries like fractures. This could eventually impact employers' expectation of time to RTW.

Many discussed that regardless of injury severity, people who are work focused, have a higher degree of personal motivation, and desire to RTW, are more likely to RTW. On the other hand, it was mentioned by some participants that people with lower pre-injury job satisfaction are less likely to RTW:

> "*Their motivation, internal resilience, their liking or disliking of the work they do was important. Because if they already hated their job, they're not going to be very keen to go back to it even if they're a resilient individual".* (Rehabilitation advisor 3)

Another individual factor that was discussed by some stakeholders was that receiving support from family can facilitate the RTW process. A rehabilitation advisor stated:

> "*With appropriate educated family support climbing up that humungous mountain is significantly easier than someone who's battling on alone. So, I think it's a missing piece in the puzzle".* (Rehabilitation advisor 4)

However, insurers and treating health professionals mentioned that sometimes support from families can have a negative impact on the RTW of injured persons. An occupational physician discussed this:

> "*With the more complex cases often the family members will come on and you'll sometimes have a family member saying, "Oh, you don't understand. This person needs to have time off because he really can't work".* (Occupational physician 1)

Discussion

The focus of this study was to explore the perspectives of key stakeholders regarding the barriers and facilitators of RTW after mild to serious RTI in a fault-based scheme. The overarching themes identified were: (1) knowledge is power; (2) stakeholder expertise; (3) early and appropriate treatment matters; (4) insurers could do better; (5) necessity of employers' support; (6) fix the disjointed system; and (7) importance of individual factors pre- and post- injury. These themes provide real-world detail into Queensland's at fault CTP scheme, how different stakeholders operate within it, and recommendations for improving the RTW of injured persons following mild to serious RTI.

Stakeholders' inadequate knowledge of the claim process and disability schemes in Queensland, as well as their limited knowledge about the health benefits of RTW were frequently mentioned by participants as one of the main barriers of RTW. The necessity for improving the quality and accessibility of information associated with understanding

the claim process, regulations or legislation, and the recovery pathways after RTI has consistently been emphasized in literature conducted in other Australian states (19, 39–44) and internationally (45–48). Delivering training on the health benefits of work, different compensation systems, the amount and type of medical intervention and the type of healthcare providers that can be consulted during recovery have been recommended in previous studies to address this RTW barrier (43, 49–51). The systematic review by Turner-Stokes et al. (52) identified strong evidence that provision of appropriate information on the nature of the injury and recovery process to working-age patients with mild brain injury may speed up their recovery. Similarly, applying unambiguous, evidence-based, patient-centred written material can be a useful strategy in the management of disability arising from musculoskeletal conditions such as whiplash and promote of active recovery (48, 53, 54). Providing patients with high quality information may prevent communication problems between health care providers and patients, reduce patients' stress and anxiety, and increase their confidence to seek appropriate follow-up care (48, 55, 56). Several resources have been created to provide key stakeholders with the necessary information on the importance and process of RTW after RTI in Australia. One example is the policy document, "Health Benefits of Work" produced by The Australasian Faculty of Occupational and Environmental Medicine to be used by RTW stakeholders to promote recovery at work practices following injuries and highlight the necessity of better integration between health services and employers (57). This study is the first highlighting that stakeholder groups and injured persons' lack of awareness of the RTW process and resources could be a critical barrier for RTW after RTI. The extent to which the content of these resources can be easily accessed, read, understood, and implemented by all RTW stakeholders including injured persons is unknown. Therefore, further research is needed to understand issues influencing the accessibility and usability of RTW resources and to explore how and why injured persons and other stakeholders' knowledge of the system continues to be a barrier to RTW.

It was encouraging that many interviewees demonstrated familiarity with the current RTW process and the importance of RTW following RTI in recovery. However, it was discussed that the extent to which their knowledge informs practice is determined by other factors which are often beyond their control, such as differences in stakeholders' goals and opinions, and a lack of coordination and communication between stakeholders. Confirming the findings of previous research (19, 39, 41–43), this study highlighted the lack of communication in the current RTW system. Using a team approach and employing someone to coordinate the rehabilitation team were suggested by most participants to be effective in addressing communication issues in this "disjointed system". Many participants believed GPs are the best stakeholders to coordinate the team because of their comprehensive knowledge of RTI. However, recent findings of an Australian study showed that GPs may not be ideally placed to undertake this role due to time constraints, limited knowledge and interaction with employers and insurers, as well as the tension between their role as patient advocate versus insurer gatekeeper (43). Therefore, to improve communication and coordination in the current system, there is a need for clear definition of all stakeholders' roles and responsibilities in the RTW system and to identify the best stakeholder to coordinate the rehabilitation team. Australia has a national RTW strategy for work-related injuries (2020–2030) that clarifies the role of key RTW stakeholders and emphasises the need to use a coordinated and collaborative approach to RTW and considering the process, support, and interventions in accordance with the needs of the injured individuals (49). Adopting a similar approach in the context of RTI can provide a clear understanding of the RTW process following crash-related injuries as well as the role of each stakeholder in this process, leading to better coordination and communication among stakeholders.

The present study identified sub-optimal treatment approaches as a critical barrier of RTW following minor to serious RTI. Highlighted was the importance of early and appropriate treatment by health professionals, sufficient and flexible treatment support by the CTP insurer, and identification of high-risk individuals through early physical and psychological assessments. Similarly, studies conducted in Australian states operating a no-fault scheme have identified that rapid and early intervention is necessary for recovery following RTI, whereas inappropriate quality of care, disappointment with the health system, and difficulties in obtaining treatment approval from insurance companies were major barriers affecting recovery after these injuries (19, 39, 40, 42, 43, 56). Identification of several health care-related barriers to RTW across different compensation schemes demonstrates the sub-optimal care provided after RTI regardless of the type of scheme. Therefore, this study suggests that future studies should explore the views of all RTW stakeholders on the actions required to bridge the gap between "real" and "ideal" care. These findings can be used for developing a care plan which is timely, equitable, transparent, and effective for individuals who sustain a RTI.

Long duration of claim processing was suggested to have a negative impact on RTW in a fault-based scheme, confirming the findings of previous research performed in a no-fault scheme (41, 42). The insurer's early contact with the injured person, their clarity and transparency about claim processes, and employing experienced case managers with health backgrounds were common factors suggested for

reducing the duration of the claim and a better RTW outcome. Identification of these amendable factors makes our results of particular importance for future interventions by shedding light on the critical role of organisational barriers in the RTW system. Thus, further research is needed to identify appropriate approaches to incentivise insurance companies to recruit case managers with health backgrounds and provide education to ensure to provide required information to injured persons and other RTW stakeholders.

Lack of understanding and support from employers was also identified as a key RTW barrier after RTI. Consistent with Prang et al. (58) conducted in a no-fault scheme, this study showed improving employers' attitude towards accepting people with RTI before being 100% well and creating a supportive culture at the workplace is a critical facilitator of RTW. Several strategies were suggested by participants in relation to employers, in the current study to facilitate RTW. This included, employers being encouraged to have a RTW plan in place for the returning worker, offering emotional support from supervisors and colleagues, as well as initiating early and regular contact with the injured employee. Previous studies have also found that changes to working arrangements made by employers for the injured person, such as reduced hours, modified equipment, and suitable duties can lead to a successful RTW following RTI (10). Most participants believed it is unlikely that employers will use these strategies without the introduction of financial incentives or legal obligations as Queensland employers are not legally obliged to support RTW of employees injured in a RTC that occurred outside of the normal commute to and from work. Our findings, together with examples from other jurisdictions, suggest there may be merit in exploring the potential for new legislation that introduces such legal responsibilities for employers.

This study identified several individual factors which can impact RTW following RTI. In line with previous observational studies of injured persons [51–55], stakeholders in this study reported that worse pre- and post-injury physical and psychological health can negatively impact RTW of people with RTI. Another individual factor that was raised by most participants was the financial status of the injured person. Participants in this study suggested that those with a better financial status are more likely to stay away from work whereas those with worse financial status may RTW too early to maintain or restore their income which may lead to frequent RTW failures. Participants suggested that providing reasonable financial support for all people injured in a RTC regardless of their fault status may reduce the stress arising from financial insecurity and prepare them for a gradual yet successful RTW. The findings of previous research conducted in Australia to explore the impact of compensation on recovery following RTI is not consistent. To our knowledge, most of these studies were performed in the states operating a no-fault scheme and indicated that having access to compensation is a major RTW barrier (59, 60). However, O'Donnell et al. (61) did not identify a significant difference in RTW outcomes between those with compensable and non-compensable injuries. It was suggested that several factors may impact RTW outcomes in compensation studies such as mental health issues arising from stressful interactions with compensation agencies, pre-injury psychiatric history, and income prior to the RTI. Therefore, to better understand the impact of access to compensation on RTW after RTI, longitudinal cohort studies are needed to explore the differences in RTW trajectory of compensable and non-compensable individuals in different compensation schemes.

To the best of our knowledge, this study is the first in Australia and internationally to explore different stakeholders' perspective on RTW following mild to serious RTI in a fault-based compensation scheme. Recruiting distinct groups of stakeholders and careful approach to data collection and analysis increased the reliability of findings. The in-depth interviews provided rich data, reflecting on the experiences of participants and differences in their perceptions which subsequently led to identifying several modifiable RTW barriers and beneficial recommendations to tackle these barriers. However, there were limitations worthy of mention. This study only focused on the RTW issues in the state's at-fault compensation scheme. Thus, the findings may not be generalizable to other states or countries operating no-fault schemes. Furthermore, it should be acknowledged that stakeholders' participation was not consistent across different data collection methods. For instance, only insurance representatives participated at the focus group whereas legal representatives only participated in the interviews. While participant responses may have been affected by the data collection method, the flexibility in data collection allowed for greater diversity in the sample and resulted in richer data to address the research questions. Additionally, the participants represented a highly experienced group, with only three participants having 3 years work experience or less, with the majority (n = 28) working in this field for eight years or more. It is unknown whether differing levels of work experience may have influenced participants responses, and while outside the aims of this research, future research could explore if insights or experiences differ between experience levels in the RTW insurance industry. Finally, it should be noted that data saturation was not a preferred outcome in this study as according to ID, the applied and practice disciplines believe that experience can theoretically have infinite variation(62). Instead, this study aimed to obtain a deeper understanding of participants perspective while accepting the differences in their perceptions

and outliers. Nevertheless, it should be acknowledged that having more participants in one of the stakeholder groups (i.e. legal representatives) would have provided more information on this topic.

Conclusions

This study showed that RTW following mild to serious RTI requires the contribution of all stakeholders. The prominent recommendations derived are to (i) increase public awareness by providing transparent, user-friendly, and accessible information concerning the disability and compensation schemes, and the importance of RTW following RTI, (ii) improve communication and coordination among stakeholders, (iii) introduce legislation in relation to employer's obligations to better support RTW of people with crash-related injuries, (iv) provide a clear definition of each stakeholder's role in the CTP system regarding RTW, and (v) provide early and appropriate financial and treatment support after RTI for people who sustain a RTI. The findings of this study can be used to address the identified barriers at the individual, workplace, healthcare and legislative level.

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Availability of data and material All data is available upon the request from the authors.

Code Availability NVivo 12 software licenced by The University of Queensland.

Declarations

Conflicts of interest/Competing interests All authors declare that there is no conflict of interest/competing interests.

Ethics approval Ethical approval was granted by The University of Queensland Human Research Ethics Committee (#2018001264).

Consent to participate Informed written consent was obtained from the participants.

Consent for publication Informed written consent was obtained from the participants.

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