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Factors Associated with Employer Support for Injured Workers During a Workers' Compensation Claim

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Abstract

Purpose The employer/worker relationship can be an important catalyst for—or obstacle to—successful return to work (RTW). An understanding of factors associated with an injured worker's relationship with their employer, and employer involvement in RTW planning, is warranted. *Methods* Analysis of $n = 8808$ cross-sectional survey responses from injured workers in nine Australian workers' compensation (WC) jurisdictions. Workers completed a telephone survey between 6 and 24 months post-WC claim acceptance. Factors associated with the worker's perception of employer support were examined using ordinal regression. Factors associated with employer provision of RTW plans were examined using logistic regression. *Results* Factors associated with employer support included being aged over 50 years, not having a mental health condition, better self-rated health and less time between injury and claim. Factors associated with having a RTW plan included being female, not having a mental health condition and working for a self-insurer. Factors associated with having a written RTW plan included being female and being under 50 years. There was wide variation in the provision of RTW plans between WC jurisdictions. *Conclusions* There are strong associations between worker, claim and injury-related factors and the injured worker's experience of employer support. Identification of workers at risk of receiving inadequate support during the RTW process may enable interventions to improve support and RTW outcomes.

Keywords Return to work plan · Return to work · Workplace injury · Mental health conditions

Introduction

Work-related injury and illness is a major factor in the global economy with the average cost for a developed country estimated to be equivalent to 4% of GDP [1]. As well as reducing costs, returning an injured worker to work is also beneficial for the worker's health [2]. Returning to work often requires more than just treating the worker's injury and is a complex interaction between multiple parties [3, 4]. A key interaction in facilitating return to work (RTW) is between the worker and his or her employer [5, 6].

A number of studies have shown the importance of employer support for a successful return to work after injury. In a study of 9850 injured workers, 94% whose employer had a high interest in re-employing the injured worker had a successful RTW compared to 35% for those who did not [7]. Workers who said their supervisor reacted positively when the injury was reported had twice the odds of achieving a sustained RTW [8]. Studies on conditions as varied as back pain [9], depression [10] and traumatic brain injury [11] have identified employer support as a significant factor in RTW.

A tangible way that an employer can provide support for the RTW of an injured worker is with a RTW plan. RTW plans are considered part of the best practice approach to facilitating RTW [3]. A RTW plan is aimed at achieving the timely, safe, and durable RTW of the worker and commonly

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contains a timeline for RTW, the identification of suitable or modified duties and any rehabilitation required [12, 13]. Ideally, employers should develop RTW plans together with the worker and their treating practitioner, with the worker receiving a copy of this plan [3, 14]. As RTW planning involves considerable coordination and commitment between stakeholders [3], unwritten plans such as verbal agreements lack accountability and probably indicate a planning process that is less thorough. Given the complexity of RTW across multiple stakeholders, unwritten plans are likely less effective. Evidence concerning which Australian workers receive RTW plans and whether these are written or unwritten plans is lacking.

Australian workers' compensation jurisdictions differ in regards to the circumstances in which they require an injured worker to have a RTW plan, but all have legislation relating to RTW plans (Supplementary Table 1) [15]. In a study of 632 injured Victorian workers, RTW plans doubled the odds of a sustained RTW at 4 months post-injury [16]. Despite requirements for employers to provide RTW plans, the Victorian study found only half the sample recalled receiving a plan from their employer.

Although the importance of employer support, including the use of RTW plans, has been well documented, factors that influence whether a worker feels supported or has a RTW plan have not been investigated. Gaining insight into which workers are less likely to feel supported can allow employers to focus efforts towards specific workers. Similarly, an understanding of which workers are less likely to receive RTW plans can facilitate targeted interventions from both employers and policy makers. Using a large Australian survey of workers' compensation claimants spanning multiple jurisdictions, industries and injury types, this study investigates factors associated with the worker's perception of employer support and having a RTW plan.

Methods

Setting

Australia has a labour force of 12.5 million [17], of which 94.4% are covered by one of the nation's workers' compensation systems [18]. Workers who are self-employed, sole traders or independent contractors are typically exempt from coverage. These systems provide wage replacement and healthcare expenditure for workers with a temporary or permanent incapacity to work due to a medical condition incurred in the course of employment [15]. Injuries typically covered include musculoskeletal conditions, traumatic injuries, mental health conditions and occupational diseases [15].

The systems are organised on a geographical basis, with each state and territory having a single compulsory system [15]. There is also a commonwealth system for federal government employees and some large national organisations (Comcare), as well as a system for maritime workers (Seacare) [15]. All schemes share a common legislative objective of returning injured workers to the workplace and provide various services and support to achieve this objective [19]. Case management is either provided by private sector insurers or directly by government authorities. Healthcare and treatment is provided via Australia's public health care system (Medicare) or through the private healthcare system, but is funded by the workers' compensation systems.

Data Source

The National Return to Work Survey (NRTWS) is commissioned by Safe Work Australia, a commonwealth government coordinating agency, on behalf of the workers' compensation jurisdictions [20]. The survey provides a regular benchmark of jurisdictional and national performance in RTW and has been conducted annually from 1999 to 2014 and biennially starting from 2016. This study includes data from the three iterations of the survey conducted in 2013, 2014, and 2016.

Eligible participants were injured workers with accepted workers' compensation claims who had taken at least 1 day off work as a result of their injuries and whose claim was submitted in the 24 months prior to the survey. The NRTWS captures self-reported demographic, work, health and experiential data from injured workers with an accepted claim from the workers' compensation schemes in New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, Northern Territory, Comcare and Seacare. Sampling is stratified across the workers' compensation jurisdictions to ensure sufficient sample sizes in some of the smaller jurisdictions. A total of 14,501 workers completed the survey in the 3 years analysed.

Data were collected via a computer-assisted telephone interview. Workers meeting eligibility criteria were identified by the workers' compensation authorities from claims data. Contact details were provided to an independent survey company, which sent a letter explaining the survey and providing options to opt-out of participating. Workers who did not opt-out were contacted via telephone to obtain informed consent. Where obtained, the survey was administered immediately or at a time nominated by the participant. The response rate was 80% in 2013 and 2014, and 82% in 2016 [20–22].

The NRTWS measures have been described elsewhere and include worker demographics, employer characteristics, employer and co-worker interactions, experiences of

the compensation process, medical care, and measures of return to work [20].

Covariates

Covariates included health status, demographic, injury type, occupational, employer, jurisdiction, and claim factors. Self-rated health was captured on a 1 (poor) to 5 (excellent) scale and dichotomised into poor/fair/good and very good/excellent categories. Injury type was based on a modified version of the type of occurrence classification system [23] that has been previously reported [24]. Age was categorised into three bands of 18 to 35, 36 to 50, and 51+ years. Jurisdiction of claim is the workers' compensation scheme in which the claim was accepted. The time from workers' compensation claim lodgement until the date of interview was categorised into 0–5, 6–11, 12–17, 18–24 months. Employer type was categorised into premium payers (paying workers' compensation premiums to the jurisdictional regulator) or self-insurers (funding own costs of workers' compensation insurance). The time between injury onset and claim lodgement was categorised as less than 7, 7–13, 14–27, 28–55, 56–83, 84–180 or more than 180 days.

Outcomes

Workers' perception of employer support was assessed via six questions, with responses measured on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). A neutral response was indicated by a scale score of 3. The questions were asked in the 2014 and 2016 rounds of the survey and are as follows:

> Thinking about the role of your employer at the time of your workplace injury or illness, do you agree or disagree with the following statements:
> 1. Your employer did what they could to support you.
> 2. Your employer provided enough information on both your rights and responsibilities.
> 3. Your employer made an effort to find suitable employment for you.
> 4. Your employer helped you with your recovery.
> 5. Your employer treated you fairly during the claims process.
> 6. Your employer treated you fairly after the claims process.

A very high internal consistency between questions (Cronbach's alpha of 0.91) suggested it was appropriate to pool each individual's responses into a single outcome measure. For each worker in the sample, the mean response to the statements was categorised as strongly agree (mean score of ≥ 4.5), agree (mean score of 3.5–4.5), and neutral/disagree/strongly disagree (mean score of < 3.5). These cut points were chosen based on the bimodal distribution of the data, which had large peaks at an average of 4 and at an average of 5.

The second outcome analysed was whether the worker reported having a RTW plan. The following question was asked to workers who had made their claim in the 12 months prior to interview and was asked only in the 2013 and 2014 surveys:

> Did/Do you have a return to work plan? A return to work plan is an agreement setting out the steps to achieve a return to work. It is usually developed with your employer or insurer.

The final analysis was focused on factors associated with written versus unwritten RTW plans.

Data Analysis

Multiple imputation for missing age and gender was performed in five iterations of sequential imputation using chained equations, as there were 675 cases missing age and/or gender. All of these cases were from the 2013 survey and 649 cases were from New South Wales indicating that the data was missing at random. Imputation was not used on cases missing injury type as small cell counts in some categories prohibited prediction. The employer support questions were not asked in the 2013 survey so the imputed data was only used in the RTW plan models.

Those who were interviewed but had not answered at least four of the six employer support questions were excluded from the employer support model. This resulted in 934 cases being excluded (9.5% of the sample), with 736 of these not coded with a reason for the missing response. Workers who had not answered the question about having a RTW plan or who had a plan and did not answer the question about if the plan was written or unwritten were excluded from the RTW plan models. This resulted in 323 cases being excluded (4.7% of the sample). The exclusion process for both models is summarised in Fig. 1.

Frequencies and percentages were used to describe the cohorts, as variables were categorical. Factors associated with employer support were assessed using ordinal logistic regression. Ordinal regression was utilised to account for the ranked nature of the categories of employer support. Factors associated with having a RTW plan and factors associated with whether the RTW plan was written or unwritten were modelled using binary logistic regression. Results are reported as adjusted odds ratios (AOR) with 95% confidence intervals.

Each potential covariate was assessed for a univariate association with each outcome using a p-value of 0.20 as the threshold. Covariates that reached this threshold were then combined in a multivariate model and retained

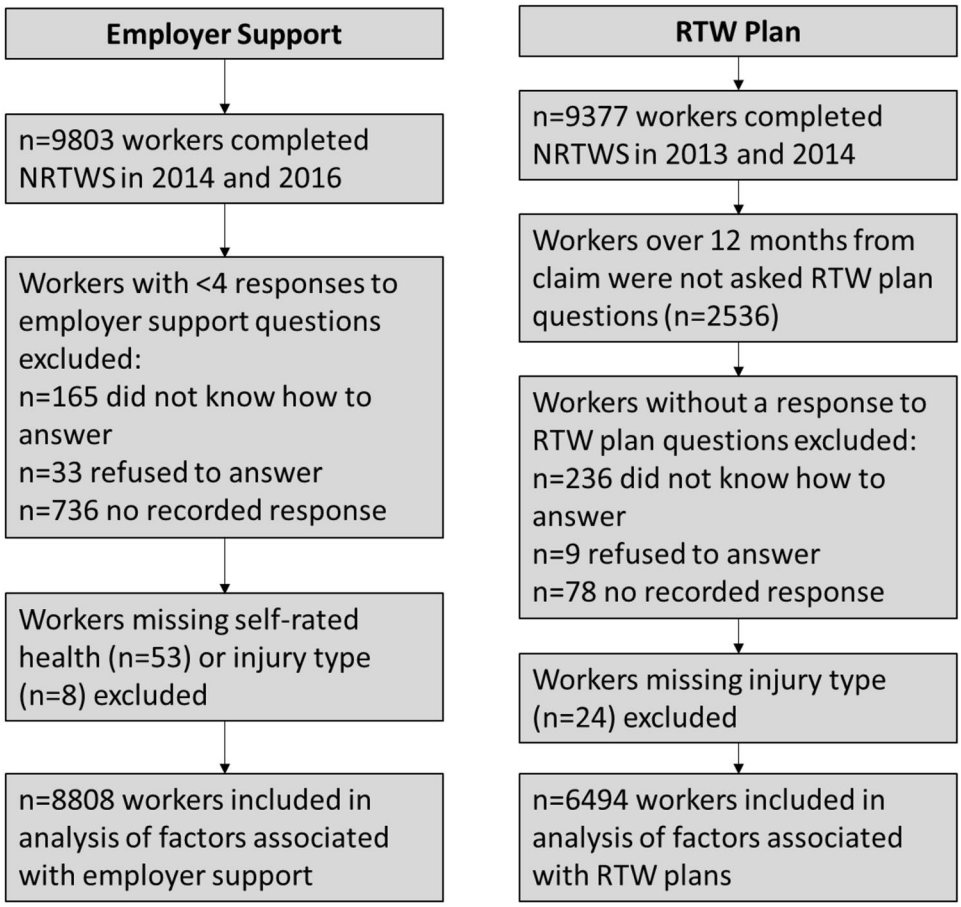

Fig. 1 Overview of sample selection for employer support and RTW plan models

if significant at $p < 0.05$. All analyses were carried out using Stata 15.1 [25].

Results

Overview of Participants

There were 8808 workers included in the model assessing factors associated with employer support. The characteristics of these workers are shown in Table 1. Thirty-four percent of workers expressed moderate to low levels of employer support (n = 2995), 36% high levels of employer support (n = 3195) and 30% very high levels (n = 2658).

There were 6494 workers included in the model assessing factors associated with RTW plans. The characteristics of these workers are shown in Table 2. Fifty-seven percent of workers had a RTW plan (n = 3671). Of these, 85% had a written plan (n = 3108) and 15% had an unwritten plan (n = 563). The characteristics of these workers are shown in Table 3.

Factors Associated with Employer Support

Table 1 provides the results of the ordinal logistic model with employer support as the outcome. Factors associated with higher employer support included very good or excellent health (AOR 2.46; 95% CI 2.27–2.67), fractures (AOR 1.44, 95% CI 1.27–1.63), other traumatic injuries (AOR 1.18, 95% CI 1.06–1.32) and other diseases (AOR 1.31, 95% CI 1.04–1.64) (reference: musculoskeletal conditions), having a claim in New South Wales (AOR 1.15, 95% CI 1.01–1.31), Tasmania (AOR 1.28, 95% CI 1.09–1.50), Victoria (AOR 1.17, 95% CI 1.02–1.35), South Australia (AOR 1.24, 95% CI 1.06–1.44) and Comcare (AOR 1.35, 95% CI 1.12–1.63) (reference: Queensland). Factors associated with lower odds of employer support included being younger (aged 18–35: AOR 0.72; 95% CI 0.65–0.79; aged 36–50: AOR 0.77; 95% CI 0.71–0.85; reference: aged > 51), mental health conditions (AOR 0.25, 95% CI 0.20–0.31) (reference: musculoskeletal conditions), having a claim in the Northern Territory (AOR 0.77, 95% CI 0.61–0.99) (reference: Queensland), and being interviewed in 2014 (AOR 0.90, 95% CI 0.83–0.98) (reference: 2016 interview). Employer

Table 1 Characteristics of workers in each category of employer support and results of ordinal regression with employer support as the outcome

Factor	Total	Col %	Low/moderate employer support	Row %	High employer support	Row %	Very high employer support	Row %	Employer support—ordinal regression		
									AOR	95% CI	p value
n	8808		2955	33.5	3195	36.3	2658	30.2			
Gender											
Male	5680	64.5	1805	31.8	2103	37.0	1772	31.2	Ref		
Female	3128	35.5	1150	36.8	1092	34.9	886	28.3	0.93	0.85–1.01	0.08
Age											
18–35	2324	26.4	788	33.9	840	36.1	696	29.9	0.72	0.65–0.79	<0.001
36–50	3023	34.3	1113	36.8	1064	35.2	846	28.0	0.77	0.71–0.85	<0.001
>51	3461	39.3	1054	30.5	1291	37.3	1116	32.2	Ref		
Jurisdiction											
Queensland	1627	18.5	556	34.2	579	35.6	492	30.2	Ref		
Tasmania	865	9.8	288	33.3	294	34.0	283	32.7	1.28	1.09–1.50	0.003
Western Australia	1052	11.9	344	32.7	405	38.5	303	28.8	1.06	0.91–1.23	0.46
Victoria	1598	18.1	540	33.8	609	38.1	449	28.1	1.17	1.02–1.35	0.02
Seacare	216	2.5	69	31.9	68	31.5	79	36.6	1.28	0.97–1.69	0.08
New South Wales	1589	18.0	521	32.8	546	34.4	522	32.9	1.15	1.01–1.31	0.03
South Australia	974	11.1	335	34.4	344	35.3	295	30.3	1.24	1.06–1.44	0.01
Comcare	604	6.9	177	29.3	258	42.7	169	28.0	1.35	1.12–1.63	0.001
Northern Territory	283	3.2	125	44.2	92	32.5	66	23.3	0.77	0.61–0.99	0.04
Injury type											
Fractures	1055	12.0	262	24.8	386	36.6	407	38.6	1.44	1.27–1.63	<0.001
Musculoskeletal conditions	5232	59.4	1775	33.9	1953	37.3	1504	28.7	Ref		
Neurological injury and disease	166	1.9	59	35.5	50	30.1	57	34.3	1.14	0.85–1.54	0.37
Mental health conditions	495	5.6	347	70.1	94	19.0	54	10.9	0.25	0.20–0.31	<0.001
Other traumatic	1569	17.8	435	27.7	602	38.4	532	33.9	1.18	1.06–1.32	0.002
Other diseases	276	3.1	70	25.4	105	38.0	101	36.6	1.31	1.04–1.64	0.02
Other claims	15	0.2	7	46.7	5	33.3	3	20.0	0.62	0.24–1.62	0.33
Months from claim to interview											
<6	529	6.0	129	24.4	218	41.2	182	34.4	1.23	1.04–1.46	0.02
6–11	5659	64.2	1876	33.2	2073	36.6	1710	30.2	Ref		
12–17	1192	13.5	417	35.0	425	35.7	350	29.4	0.91	0.81–1.03	0.12
18–24	1428	16.2	533	37.3	479	33.5	416	29.1	0.86	0.77–0.96	0.01
Self-rated health											
Poor/fair/good	5291	60.1	2208	41.7	1881	35.6	1202	22.7	Ref		
Very good/excellent	3517	39.9	747	21.2	1314	37.4	1456	41.4	2.46	2.27–2.67	<0.001

Table 1 (continued)

Factor	Total	Col %	Low/moderate employer support	Row %	High employer support	Row %	Very high employer support	Row %	Employer support—ordinal regression		
									AOR	95% CI	p value
Days from injury to claim											
<7	3039	34.5	903	29.7	1119	36.8	1017	33.5	Ref		
7–13	1956	22.2	597	30.5	756	38.7	603	30.8	0.94	0.84–1.04	0.24
14–27	1704	19.3	600	35.2	609	35.7	495	29.0	0.81	0.71–0.91	<0.001
28–55	1072	12.2	400	37.3	385	35.9	287	26.8	0.79	0.68–0.91	0.001
56–83	389	4.4	158	40.6	135	34.7	96	24.7	0.74	0.60–0.91	0.01
84–180	397	4.5	170	42.8	119	30.0	108	27.2	0.73	0.59–0.90	0.003
<180	251	2.8	127	50.6	72	28.7	52	20.7	0.59	0.45–0.76	<0.001
Year of interview											
2014	4376	49.7	1529	34.9	1593	36.4	1254	28.7	0.90	0.83–0.98	0.01
2016	4432	50.3	1426	32.2	1602	36.1	1404	31.7	Ref		

AOR adjusted odds ratio, *CI* confidence interval

support decreased as the time from both injury to claim and claim to interview increased.

Factors Associated with RTW Plans

The results of the logistic regression with having a RTW plan as the outcome is reported in Table 2. Factors associated with a RTW plan included being female (AOR 1.37, 95% CI 1.23–1.53) and working for a self-insurer (AOR 1.36, 95% CI 1.09–1.71). Workers from all jurisdictions except the Northern Territory and Seacare had greater odds of having a RTW plan (reference: Queensland). Factors associated with lowered likelihood of a RTW plan included being aged over 50 years (AOR 0.82, 95% CI 0.72–0.93) (reference: aged 36–50), fractures (AOR 0.78, 95% CI 0.67–0.92), mental health conditions (AOR 0.53, 95% CI 0.43–0.66), other traumatic injuries (AOR 0.62, 95% CI 0.54–0.71) and other diseases (AOR 0.66, 95% CI 0.50–0.87) (reference: musculoskeletal conditions), and workers who were interviewed less than 6 months after their date of claim (AOR 0.67, 95% CI 0.57–0.79) (reference: interviewed 6–12 months after date of claim).

Factors Associated with Written RTW Plans

Among workers who had a RTW plan, factors associated with it being a written plan included being female (AOR 1.89, 95% CI 1.54–2.33), and having a claim in Tasmania (AOR 1.90, 95% CI 1.28–2.81) or South Australia (AOR 1.55, 95% CI 1.08–2.23) (reference: Queensland) (Table 3). Factors associated with an unwritten plan included being aged over 50 (AOR 0.72, 95% CI 0.57–0.91) (reference: aged 36–50), having a claim in Seacare (AOR 0.36, 95% CI 0.16–0.80) (reference: Queensland) and workers with other traumatic (AOR 0.67, 95% CI 0.52–0.85) or other diseases (AOR 0.57, 95% CI 0.36–0.91) (reference: musculoskeletal conditions).

Discussion

The relationship between an injured worker and their employer during the injured worker's time off work can be important for the injured worker's health and the success of RTW [3, 7, 16]. This study identifies factors that are associated with whether a worker receives support from their employer as well as factors associated with having a RTW plan and whether this is a written plan.

Workers with mental health conditions (MHCs) were identified as being much less likely to feel supported by their employer and less likely to have a RTW plan. This aligns with previous qualitative research conducted in the Australian state of Victoria where interviews were conducted with

Table 2 Characteristics of workers who did and did not receive a RTW plan and results of logistic regression with RTW plan as the outcome

Factor	Total	Col %	No RTW		RTW		RTW plan—logistic regression		
			Plan	Row %	Plan	Row %	AOR	95% CIs	p value
n	6494		2823	43.5	3671	56.5			
Gender									
Male	3690	56.8	1759	47.7	1931	52.3	Ref		
Female	2153	33.2	823	38.2	1330	61.8	1.37	1.23–1.53	< 0.001
Missing	651	10.0	241	37.0	410	63.0			
Age									
18–35	1591	24.5	739	46.4	852	53.6	0.90	0.79–1.03	0.13
36–50	2134	32.9	872	40.9	1262	59.1	Ref		
> 51	2096	32.3	965	46.0	1131	54.0	0.82	0.72–0.93	0.002
Missing	673	10.4	247	36.7	426	63.3			
Jurisdiction									
Queensland	1268	19.5	671	52.9	597	47.1	Ref		
Tasmania	654	10.1	246	37.6	408	62.4	1.91	1.57–2.32	< 0.001
Western Australia	934	14.4	415	44.4	519	55.6	1.43	1.21–1.71	< 0.001
Victoria	1101	17.0	477	43.3	624	56.7	1.58	1.34–1.87	< 0.001
Seacare	103	1.6	75	72.8	28	27.2	0.47	0.30–0.74	0.001
New South Wales	1195	18.4	457	38.2	738	61.8	1.87	1.59–2.20	< 0.001
South Australia	740	11.4	300	40.5	440	59.5	1.56	1.29–1.88	< 0.001
Comcare	402	6.2	132	32.8	270	67.2	2.22	1.73–2.85	< 0.001
Northern Territory	97	1.5	50	51.5	47	48.5	1.14	0.75–1.74	0.53
Injury type									
Fractures	774	11.9	358	46.3	416	53.7	0.78	0.67–0.92	0.002
Musculoskeletal conditions	3823	58.9	1498	39.2	2325	60.8	Ref		
Neurological injury and disease	112	1.7	46	41.1	66	58.9	0.88	0.59–1.29	0.50
Mental health conditions	385	5.9	188	48.8	197	51.2	0.53	0.43–0.66	< 0.001
Other traumatic	1164	17.9	608	52.2	556	47.8	0.62	0.54–0.71	< 0.001
Other diseases	225	3.5	118	52.4	107	47.6	0.66	0.50–0.87	0.003
Other claims	11	0.2	7	63.6	4	36.4	0.51	0.15–1.77	0.29
Months from claim to interview									
<6	668	10.3	338	50.6	330	49.4	0.67	0.57–0.79	< 0.001
6–12	5826	89.7	2485	42.7	3341	57.3	Ref		
Insurer type									
Scheme-insurer	6068	93.4	2678	44.1	3390	55.9	Ref		
Self-insurer	426	6.6	145	34.0	281	66.0	1.36	1.09–1.71	0.01

AOR adjusted odds ratio, *CI* confidence interval, *RTW* return to work

injured workers with MHCs and employers [26]. The 'invisible' nature of MHCs often caused employers to question the validity and role of work in the condition. Sometimes this contributed to an adversarial relationship between the worker and the employer. Employers questioning the validity of claims may also explain the inverse relationship between time from claim to injury and employer support. Workers with mental health conditions also had lower rates of RTW plans than other injury types. An employer's lack of understanding or acceptance of the MHC and uncertainty about appropriate work accommodations can present barriers to the development of RTW plans [27].

Almost half the sample did not report a RTW plan of any kind, which is consistent with previous research on RTW plans from Australia [16]. There were large differences between jurisdictions in the prevalence of workers' self-reported RTW plans. The circumstances in a which a RTW plan is required differs between each jurisdiction (Supplementary Table 1) [15]. In many cases the injuries may have been minor and a RTW plan not considered necessary, or would have been provided if the worker had a longer time off work. As having a RTW plan has previously been positively associated with RTW [16], it follows that a number of workers still off work would not have had a plan, and thus

Table 3 Characteristics of workers who received unwritten or written RTW plans and results of logistic regression with a written RTW plan as the outcome

Factor	Total	Col %	Unwritten plan	Row %	Written plan	Row %	Written RTW plan—logistic regression		
							AOR	95% CIs	p value
n	3671		563	15.3	3108	84.7			
Gender									
Male	1931	52.6	373	19.3	1558	80.7	Ref		
Female	1330	36.2	133	10.0	1197	90.0	1.89	1.54–2.33	< 0.001
Missing	410	11.2	57	13.9	353	86.1			
Age									
18–35	852	23.2	140	16.4	712	83.6	0.87	0.67–1.14	0.32
36–50	1262	34.4	169	13.4	1093	86.6	Ref		
>51	1131	30.8	194	17.2	937	82.8	0.72	0.57–0.91	0.01
Missing	426	11.6	60	14.1	366	85.9			
Jurisdiction									
Queensland	597	16.3	108	18.1	489	81.9	Ref		
Tasmania	408	11.1	40	9.8	368	90.2	1.90	1.28–2.81	0.001
Western Australia	519	14.1	96	18.5	423	81.5	0.99	0.73–1.35	0.97
Victoria	624	17.0	93	14.9	531	85.1	1.22	0.90–1.67	0.20
Seacare	28	0.8	11	39.3	17	60.7	0.36	0.16–0.80	0.01
New South Wales	738	20.1	108	14.6	630	85.4	1.29	0.96–1.73	0.10
South Australia	440	12.0	51	11.6	389	88.4	1.55	1.08–2.23	0.02
Comcare	270	7.4	46	17.0	224	93.0	0.93	0.63–1.38	0.71
Northern Territory	47	1.3	10	21.3	37	78.7	0.79	0.38–1.67	0.55
Injury type									
Fractures	416	11.3	74	17.8	342	82.2	0.76	0.57–1.01	0.06
Musculoskeletal conditions	2325	63.3	318	13.7	2007	86.3	Ref		
Neurological injury and disease	66	1.8	9	13.6	57	86.4	0.95	0.46–1.95	0.89
Mental health conditions	197	5.4	19	9.6	178	90.4	1.33	0.80–2.19	0.27
Other traumatic	556	15.2	115	20.7	441	79.3	0.67	0.52–0.85	0.001
Other diseases	107	2.9	26	24.3	81	75.7	0.57	0.36–0.91	0.02
Other claims	4	0.1	2	50.0	2	50.0	0.14	0.02–1.07	0.06

AOR adjusted odds ratio, *CI* confidence interval, *RTW* return to work

their employers had not met their obligation to provide a RTW plan. It is also possible that in a number of cases, the RTW plan was developed with little to no involvement of the worker and so they could not recall it when interviewed. This highlights the value of obtaining this information from the worker's perspective.

Workers in the Comcare scheme had the highest odds of having a RTW plan. Comcare is composed entirely of large employers and it is likely that larger organisations would have more resources available, such as a designated and trained RTW coordinator [28], to support the worker and construct a RTW plan. However, employer size data were not available in all jurisdictions and so this could not be adjusted for in the regression model. Employer size may also be a reason for the greater prevalence of RTW plans in self-insurers, as they are also predominantly large employers. It may also be the case that scheme-insured workplaces (which could be considered a proxy for smaller employers) have fewer resources for managing injured workers and support and/or legislation focused on these employers could be beneficial.

A noteworthy finding was that self-rated health at the time of the interview was strongly associated with employer support but not associated with having had a RTW plan. As this is a cross-sectional study it is unclear if workers receiving more support resulted in better health, or workers who have better health recall a more positive experience. RTW plans not being related to self-rated health is likely to be explained by the evidence provided that employer attributes such as insurer type and jurisdiction are the major factors in whether a RTW plan is provided.

Despite no significant differences in employer support between genders, female workers had greater odds both of having a RTW plan and for their RTW plan to be written. Previous research finds that females take a more active role in their healthcare, which may explain the difference observed in this study [29].

To our knowledge, this is the first study to examine factors associated with employer support and RTW planning in a large national sample. The strengths of this study include the large sample, the coverage of multiple workers' compensation jurisdictions, and the inclusion of multiple demographic, injury and psychosocial factors. Limitations include the cross-sectional nature of the data, which limits our ability to make causal inferences and that the sampling strategy for the NRTWS resulted in a sample biased towards longer duration claims. Some workers who were eligible to be asked the employer support or RTW plan questions had missing responses, and the reasons for this were predominantly unknown (Fig. 1). Exploring employer factors associated with poor perceptions of worker support was not possible in this study, as there was limited information regarding employers in the data set. Future studies may want to investigate this so that workers with poor perceptions of employer support could be minimised through interventions targeting poorly performing workplaces.

Conclusion

This study of injured workers with accepted workers' compensation claims identified numerous factors that are associated with employer support and RTW plans. Factors associated with employer support included being aged over 50 years, not having a mental health condition, better self-rated health and less time between injury and claim. Factors associated with having a RTW plan included being female, not having a mental health condition and working for a self-insurer. Factors associated with having a written RTW plan included being female and being under 50 years. There was wide variation in the provision of RTW plans between workers' compensation jurisdictions. Almost half of injured workers reported that they did not receive a RTW plan, and it is likely that some employers are not meeting legislative requirements concerning RTW planning, and/or workers are not sufficiently involved in the development of their RTW plan to recall it when interviewed. This study provides evidence that can be used to identify workers at risk of having inadequate employer support. With this knowledge, employers and policy makers can develop interventions targeted at these workers to improve employer support and RTW planning, which in turn will support the RTW process.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval This study received ethics approval from the Monash University Human Research Ethics Committee (MUHREC) on 8 October 2014 (CF14/2995-2014001663).

Informed Consent Informed consent was obtained from all individual participants included in the study.

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