Workplace Barriers to Return-to-Work Processes[1]

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ABSTRACT

This study identified workplace barriers to return-to-work (RTW) processes through a multiple case study consisting of 38 cases. Sixty-four interviews with employees with mild traumatic brain injury (TBI) and 45 interviews with their managers were conducted in 2017–2020 at T1 (1–3 months after the employees returned to work) and T2 (12–16 months after T1). Workplace barriers were associated with the organizational and psychosocial work environments, TBI knowledge, and characteristics of the employee. The role of management was a key aspect across all barriers. Workplace barriers often co-occurred and became increasingly important at T2. At T2, most employees increased their workload, but some still experienced unsupportive management, workplace conflicts, and a low degree of job control. The psychosocial work environment is a main area for workplace barriers. The managers' knowledge of RTW processes and TBI-related challenges potentially reduce barriers and thereby contribute to balance the needs of the organization and the individual.

KEYWORDS

Occupational health / return to work / sickness absence / TBI / workplace barriers / work environment

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Introduction

Even if sick leave and disability in developed countries is a costly affair (OECD 2010), there is a lack of knowledge about factors influencing return-to-work (RTW) or prolonged sick leave due to any cause (Vlasveld et al. 2012). RTW research has gradually shifted from medically determined models to place larger emphasis on the workplace, or on cultural, economic, and social factors (Rollin & Gehanno 2012). The management and follow-up of employees in RTW processes is complex regarding the attainment of the necessary and often diagnosis-specific knowledge of proper accommodation (Spjelkavik et al. 2023). Sickness absence benefits, rules, and regulations also add to this complexity (Gensby et al. 2019). It has been argued that Nordic countries have had limited success in their abilities 'to facilitate and maintain a strong workplace approach' (Clayton 2011; Ståhl 2009 cited in Gensby et al. 2019, p. 58) and that research on work disability prevention in general has an idealized view, that is, it seems to assume that workplaces and employers can support sick-listed workers in a healthy way (Ellen et al. 2007; Seing et al. 2015).

Potential risk factors in return-to-work processes

A scoping review of Nordic working life research on employer strategies has shown that the quality of the psychosocial work environment is closely linked to the possibilities of returning to work and that there is a need 'to ensure that the returning worker is not socially excluded as well as ensuring that co-workers are not overburdened in the process' (Gensby et al. 2019, p. 87). Social support at work 'refers to [the] overall levels of helpful social interaction available on the job both from co-workers and supervisors' (Karasek & Theorell 1990, p. 69) and is significant both as a buffer mechanism between psychological stress and negative health effects for long-term health and individual learning ability. Psychosocial work environment factors, such as quality of leadership and quantitative demands (Clausen et al. 2014), reward and recognition (Roelen et al. 2018), and work predictability (Christensen et al. 2005), have been identified as significant factors in RTW attempts regardless of individual illnesses. Furthermore, changes in job content after the identification of contextually defined risk factors may be beneficial to health (Karasek & Theorell 1990).

Existing knowledge highlights that the work environment processes creating well-being in individuals are different from those that lead to stress, ill health, and sick leave (Herzberg et al. 1959; Karasek 1979; Karasek & Theorell 1990; Llorens et al. 2006; Schaufeli & Salanova 2007). In general, the known risk factors that may be detrimental to occupational health are role ambiguity, a lack of job control, excessive work pressure, time pressure, a heavy workload, inappropriate ergonomic accommodation, workplace conflicts, and uncertainty related to changes (Kompier 2002; Statens arbeidsmiljøinstitutt (STAMI) 2018). Job control, sometimes called decision latitude, 'refers to the person's ability to control his or her work activities' and is assumed to be especially important in the development of work stress (van der Doef & Maes 1999). A systematic review of psychosocial work environment and stress-related disorders found strong evidence that high job demands and effort–reward imbalances, as well as a low degree of job control, co-worker support, supervisor support, and procedural and relational justice, predicted the incidence of stress-related disorders (Nieuwenhuijsen et al. 2010).

Mild traumatic brain injury as a cause of sickness absence

Yearly, about 50 million people worldwide suffer from a traumatic brain injury (TBI) (Maas et al. 2017), of which nine out of 10 are classified as mild TBI (Cassidy et al. 2004). Of these, 15–20% experience somatic, emotional, and cognitive symptoms lasting longer than 3 months (Cancelliere et al. 2014), and 5–30% are unable to return to work within 6–12 months (Cancelliere et al. 2014; Sigurdardottir et al. 2009; Watkin et al. 2020). As such, studying the RTW processes of people suffering from TBI may provide interesting insights into potential workplace barriers to such processes.

A systematic review of work-related difficulties for employees with TBI cited unemployment, job instability, or job cessation as the key challenges and found that the severity of TBI is negatively correlated with the amount of time worked (Scaratti et al. 2017). Other studies report that as many as one-third return to work at a lower level than before the injury (Hawthorne et al. 2009). Numerous studies of returning to work after TBI have focused on the individual characteristics or employment outcomes of RTW processes. However, it is reasonable to assume that factors related to the workplace per se may influence these processes (Arango-Lasprilla et al. 2020; Donker-Cools et al. 2018). A recent systematic review (Alves et al. 2020) concluded that there is a profound lack of knowledge about work-related factors associated with returning to work after an acquired brain injury. Even so, some workplace measures, such as working reduced hours or being assigned new and often simpler work tasks (Johansson & Tham 2006; Ponsford et al. 1995), have been identified as helpful in RTW processes. The importance of employer engagement (Donker-Cools et al. 2018; Ellingsen & Aas 2009; Libeson et al. 2020; Lundqvist & Samuelsson 2012), social support (Lysaghta & Larmour-Trodeb 2008), workplace accommodation, and proper job support in RTW processes after TBI has also been highlighted (Bonneterre et al. 2013; Gilworth et al. 2008; Libeson et al. 2018; Roessler et al. 2017).

Research aim

Despite existing knowledge of RTW processes, there is still a need for longitudinal studies that enable case process analyses and studies that examine workplace barriers to RTW processes by focusing on both the organizational and psychosocial work environments. The aim of this study was to identify potential *workplace barriers to RTW processes and to contribute to knowledge that may result in the more proactive and coherent management of RTW processes*. We analyzed multiple cases consisting of interviews with employees with mild TBI (returning to their former workplaces) and their managers. The research questions are as follows:

1. Which workplace barriers can be identified in RTW processes after TBI?
2. To what extent do workplace barriers occur at different time points in RTW processes?
3. Which psychosocial and organizational work environment factors that are generally considered risk factors in work-related health may act as barriers to RTW processes?

Data and Methods

Study design

This qualitative comparative case study (Creswell 2013; Yin 2014) was carried out in 2017–2020. The data included a sample of cases derived from a randomized controlled trial (RCT) that compared the effectiveness of combining manualized cognitive rehabilitation (compensatory cognitive training and supported employment) with '*treatment as usual*' (TAU) on RTW outcomes. The interventions in the overall RCT study were provided in the specialist health care service and in real-life competitive work settings for employees with mild to moderate TBI in the eastern part of Norway. Patients aged 18–60 years with mild to moderate TBI that were employed in a minimum 50% position at the time of injury, and sick-listed 50% or more for post-concussive symptoms 2 months post-injury were included in the RCT study. The intervention group received a combined cognitive and vocational intervention (CCT-SE). The control group received TAU, which consisted of individual contacts and an educational group provided by a multidisciplinary team in health care services (Fure et al. 2021; Howe et al. 2020; Howe et al. 2017). As the main statistical analysis of the RCT study did not reveal between-group differences at the 12-month follow-up (Fure et al. 2021), the qualitative study presented in this article investigated the barriers to RTW processes for employees from both study groups. This means that in this qualitative study, we did not consider the effects that CCT-SE may have had on the occurrence of barriers to RTW processes.

The interviews were conducted based on a combination of a general interview guide approach and a standardized open-ended interview (Patton 2002). A pragmatic qualitative research design (Savin-Baden & Major 2013) is typically chosen to build flexibility in 'probing and in determining when it is appropriate to explore certain subjects in greater depth, or even to pose questions about new areas of inquiry that were not originally anticipated' (Patton 2002, p. 347). Because of this, the interviews had a dialogue-oriented approach, often called *inter-views* (Kvale & Brinkmann 2009).

Procedures

After enrollment in the overall RCT, the first 45 employees with TBI who had returned to work were asked to participate in the case study.[1] To be included as a case, the person with TBI should consent to participating and agree that their managers were to be interviewed as well. This choice was made to ensure as many full cases as possible. Thirty-eight cases were included at T1. The employee was the main informant in each case and was interviewed first.

The interviews took place at two time points: T1 (1–3 months after the employees returned to work) and T2 (12–16 months after T1). Information from different perspectives (employee vs. manager) was collected at both time points. The interviews lasted 1–1.5 hours and were audio-recorded and transcribed verbatim.

The interviews took place at various locations—at the research institution premises, at the employees' workplaces, or via phone interviews. In two cases, the employees explicitly expressed their wishes not to be interviewed in their workplaces. We did not experience differences in the informants' willingness to answer our questions openly as a

result of the different interview locations/interview forms used. As all interviewers were experienced researchers, we found it improbable that the location or interview form would have any significant impact on the quality of the data.

Employee and manager interview guides were based on adapted questions (work environment, workplace conflict, social support, and management) from the Copenhagen Psychosocial Questionnaire (COPSOQ 2003). Questions on the respondents' present work situations, changes in their work situations because of TBI, work accommodation, barriers and challenges in work accommodation, and knowledge of TBI were added.

Data material

Sixty-four interviews with employees with mild TBI and 45 interviews with their managers were carried out in 2017–2020 at T1 and T2.

Employee characteristics

Table 1 shows the distribution of the informants with TBI by background variables.

Table 1 Informants with TBI by background variables, n

Gender		Position[a]		Sector		Blue collar/white collar	
Women	Men	Managers	Employees	Private	Public	Blue	White
19	19	14	24	27	11	6	32

[a]The group of informants with TBI consisted of persons in both subordinate and leading positions (managers).

The informants were from different sectors: business services, retail, education, non-governmental organizations, public administration, building and construction, restaurant, health and social services, industry, and insurance. A more detailed informant overview table is presented in the Appendix.

Interview dropout

Table 2 Number of informant interview dropouts by interview time (T1, T2) and informant category, n

Informant category	Dropout at T1	Dropout at T2	Total dropout out of the possible interviews
Employees with TBI	5	7	12 out of 76
Managers	11	20	31 out of 76
Total	16	27	43 out of 152

As shown in Table 2, the highest dropout rate was among managers, as 31 of the potential manager interviews did not take place for various reasons. For instance, the informants with TBI changed their minds and did not want their managers to be interviewed at T2 (n = 4), the managers themselves did not want to participate (n = 5), the managers were unavailable (n = 20), or the manager/employee was self-employed (n = 2). A total of 12 employee interviews did not take place because of informant unavailability.

Data analysis

The analysis proceeded in seven steps and was based on a multiple/collective case study approach (Creswell 2013; Stake 2015; Yin 2014) based on abduction—a combination of inductive and deductive thinking (Patton 2002). *First*, the researchers analyzed four of the employee interviews separately through margin notes and open coding (Creswell 2013; Patton 2002). *Second*, the coding was compared and discussed with the research team. *Third*, a codebook was constructed, tested, evaluated, and adjusted twice. *Fourth*, the NVivo 9 data program was used to code all interview transcripts according to the codebook. *Fifth*, the codes were fitted into a matrix of main analytic categories (including background variables, such as gender, position, RTW status,[2] sector, branch, and white collar/blue collar) and sorted by 1) case identification number, 2) time point, 3) position (employee/manager), and 4) intervention/control group. This provided opportunities for performing both (*sixth*) a comparative case analysis focused on internal case developments and (*seventh*) a thematic cross-case analysis. The main analytic codes/categories were a mix of theoretically based initial assumptions and insights from the work environment and work inclusion research, as outlined in the Introduction, in combination with the use of codes derived directly from the empirical data. We reviewed the interview transcripts several times to see whether any important information was not captured or whether there were contradictions or misunderstandings. One of the four main analytical categories, *barriers regarding characteristics of the employee*, was identified because of this process.

The Norwegian Regional Committee for Medical and Health Research Ethics (REC no. 2016/2038) approved this study. Informed consent was collected, and further assurances of confidentiality were given to the study participants at the onset of the interview. All interviews were deidentified during transcription.

The informants were given fictive names. In the Findings section, the results will be illustrated by case descriptions and adherent quotations.

Findings

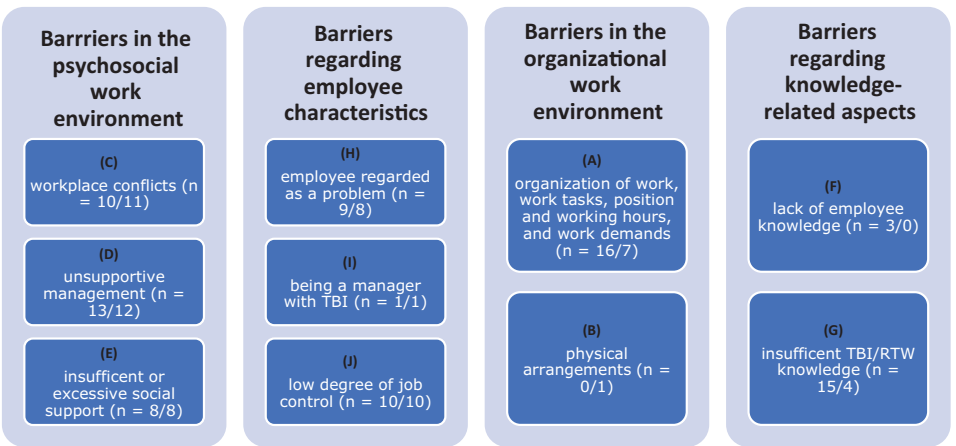
We identified four main categories of workplace barriers to RTW processes. We found that barriers in the psychosocial work environment and barriers regarding characteristics of the employee were the most frequently mentioned across time points.

Table 3 Workplace barriers by main category, time point, and frequency, n

Time point	Barriers in the psychosocial work environment[3]	Barriers regarding characteristics of the employee	Barriers in the organizational work environment[4]	Barriers regarding knowledge-related aspects	Total number of occurring barriers
T1	31	20	16	18	**85**
T2	31	19	8	4	**62**
Total	**62**	**39**	**24**	**22**	**147**

Figure 1 (below) shows the four main categories and 10 subcategories of workplace barriers to RTW processes and their respective frequencies and time points. The occurrence of barriers in each individual case is shown in the Appendix.

Figure 1 Workplace barriers to RTW processes (n = occurrence across cases at T1/T2).



As shown in Figure 1, the various barriers often co-occurred. The five most common subcategories across time points were (D) unsupportive management (n = 25), (A) organization of work, etc. (n = 23), (C) workplace conflicts (n = 21), (J) low degree of job control (n = 20), and (G) insufficient TBI/RTW knowledge (n = 19). In four of the 38 cases, we found no barriers at either time point. These informants worked in full-time positions at both time points.

By analyzing each case process independently (see the Appendix), we found that the most typical RTW process was that the number of barriers *decreased* with time (n = 15), followed by an *increase* with time (n = 10) and then *no change* in the number of occurring barriers (n = 4). In five cases, we lacked information at T2.

In the following sections, we present these barriers in more detail.

Barriers in the psychosocial work environment

The most frequently occurring main barrier category was those in the psychosocial work environment. These barriers were equally important at both time points (n = 31/31). In all three subcategories (unsupportive management, workplace conflicts, and lack of/excessive social support), we found cases in which barriers continued to be challenges at T2.

Based on the informants' subjective experiences, we found that *unsupportive management* is characterized as a relationship that is distrustful, with little or no manager contact, lack of support, and lack of understanding of the employees' situations. Unsupportive management was the most frequent barrier across time points in all categories (25 times in 16 cases). In most cases, unsupportive management appeared at both time points (n = 9), followed by those at T1 only (n = 4) and at T2 only (n = 3).

In Harry's case, there was a high degree of flexibility at first. Harry was a blue-collar worker in a small company. Accommodation at T1 presented a few problems. Harry was responsible for arranging his work and working hours in ways that suited his own work ability. Even so, he felt unproductive and had 'a bad feeling at work'. His manager lacked information about TBI and added pressure by expressing doubts about how serious Harry's condition really was at both time points. Harry was working full-time at T2 but felt tired and distrusted by the management. The manager no longer wished to provide accommodation, as this represented more work for everyone in the company. We found an overlap between several barriers. Over time, the small company size and the lack of alternative work tasks increased the pressure on Harry's colleagues. Insufficient knowledge of TBI and unsupportive management together created a difficult situation for both parties.

In Susan's case, similar barriers were found at both time points, and time points and RTW was only slightly improved (20–30%) from T1 to T2. The workplace was understaffed and stressful, with many appointments, frequent changes, and a fast work pace. Susan felt that it was difficult to keep up because of her low work attendance, and she wanted more structured facilitation. She worked mainly from home because this made it easier to use her capacity and take breaks. Susan's manager expressed doubt about her work ability at both time points and said that it would be easier if Susan worked a little more and less from home, but the manager did not propose any changes.

In 14 cases, *social support* constituted a barrier when perceived as either excessive or insufficient (in two cases at both time points, in six cases at T1 only, and in six cases at T2 only). Sufficient social support at T1 could also develop into a barrier at T2 (n = 6), for example, when colleagues and managers expressed doubts about whether the person with TBI was exaggerating the illness, or when they were afraid that the person with TBI could not perform their work tasks well enough.

> I don't get much support from my colleagues. It's very strange, but I think … I've probably been a bit of too 'clever' earlier, so now I almost think it's like they're a bit happy that things aren't going well for me. (Jill, T2)

> In the beginning, I was seen as a shunner—someone who didn't want to perform—both among my colleagues and the manager, who was new and didn't know me. After a little while, it got better; they got to know how serious it could be. (Jonathan, T1)

The perspectives on whether social support was excessive or insufficient could be considered results of not only a low degree of work ability but also a feeling of distrust. In Susan's case (see the first quote below), the continuous questions about her well-being eventually became difficult to deal with. She felt that her colleagues added pressure to her recovery process, as they had expectations that she 'should get better soon.' Dennis, on the other hand, decided to stop communicating about issues related to TBI because he experienced little interest and insufficient support from his colleagues over time.

> I think it's a little hard for people to relate to my situation. I wrote an email to them saying that people should stop asking me how things are going because I got so sick of it. (Susan, T2)

> I *could* say that I'm miserable, but people aren't happy about listening to 'sick talk' all the time. (Dennis, T2)

> There was an employee with whom I worked a lot before and with whom I would like to work more. But he worked with me when I was at my worst, when I tried to work last year. He thought I was difficult because I was very tired (…), and he got stressed and fed up as well. (Suzanne, T2)

Employees and their managers sometimes perceived challenges differently. At T1, Mary had returned 15% back to her pre-injury position as a manager. She said that her manager was reluctant to provide accommodation. At T2, Mary was working 40%, now as an employee. In her case, the lack of social support at T2 appeared together with other barriers in all categories. She did not feel included in the workplace and had no close colleagues, and she expressed frustration that another person had replaced her as a manager. At T2, Mary's manager said, 'I was planning for two and two months at a time, so it became very unpredictable—the whole situation.'

In 16 cases, involvement in *workplace conflicts* acted as a barrier to RTW processes (six at both time points, four at T1 only, and five at T2 only). Workplace conflicts were mainly related to time pressure, work pressure, management, or cooperation, downsizing, and restructuring.

When colleagues do extra work to 'cover for' the employee with TBI, both employees and their managers sometimes expressed worries concerning potential conflict development. In these cases, the time factor played a role. Doing extra work for a short period was rarely a problem, but when the recovery process took time, the pressure increased for the employee with TBI and their colleagues and managers. These conditions can be reinforced in situations in which the overall psychosocial work environment was described as bad and work and time pressure were high. Our findings indicate that an organization's ability to deal with RTW processes may prove to be limited if these conditions exist. Elena's case illustrates this point.

> Communication in the workplace is poor. There's little structure and a lot to handle. People don't think so well about one another (…) I had work assignments that were extremely difficult to do in my situation, and they made no real effort to help; they got frustrated. (Elena, T1)

> There have been some challenges with others getting more to do, and we haven't known the time horizon (…), and things had to happen very quickly; suddenly, others had to take (her) responsibility. (Elena's manager, T1)

Barriers regarding characteristics of the employee

Barriers regarding characteristics of the employees themselves were perceived as barriers at the workplace 20 times at T1 and 19 times at T2. This makes it the second most prevalent main barrier category. The role of management in RTW processes is complex, especially when insufficient knowledge of the employee, TBI and RTW processes is prevalent. The problems mentioned were 'the employee doesn't follow up on the action plan, has problems taking breaks, doesn't want accommodation, and will not let go of demanding tasks,' and these were typical when the employees themselves were regarded as the main problems in RTW processes.

Liv's case exemplifies how neither manager nor employee regarded aspects of the organizational work environment as modifiable factors; rather, they perceived Liv's way of dealing with the reduced work ability as the main problem. To the manager, the recovery process was perceived as slow—already a few months after Liv had returned to work. Liv's job in the private sector required much flexibility, autonomy, travel, and screen work. Liv expressed that pre-injury, she had a high degree of job control, job satisfaction, and job engagement. Post-injury, Liv's job engagement became challenging. The manager expressed that Liv was reluctant to let go of demanding projects and that she doubted her ability to perform work tasks and the possibility of a successful return to work. Liv felt that the main problem was her own inability to take breaks during the workday and that she was pushing herself too hard.

Carole experienced seven out of 10 barriers at T1 (see the Appendix). At T2, workplace conflicts and unsupportive management were among the four remaining barriers. She found it difficult to communicate with her manager and felt that the manager had unrealistic expectations about her work ability. The manager described Carole herself as the main problem. Despite being back in a 100 percent position at T2, Carole found the situation difficult: '(…) It is difficult to speak out against your manager when you don't have the energy to do so' (Carole, T2).

Across cases and time points, a *low degree of job control* was the fourth most frequent of all *single* barriers and was found in 14 cases (four at T1 only, four at T2 only, and six at both time points). Even if the causes of a low job control in many instances can be attributed to aspects concerning the organizational or psychosocial work environment, we found that both employees and their managers problematized a low degree of job control and often described it as an individual problem—that is, a characteristic of the employee. At T1, most employees expressed uncertainty regarding their future work prospects. At T2, a low job control still constituted a problem even when the employees had a high degree of RTW (six out of 10 with a low degree of job control worked in their positions 80–100%). Some of the interviewees explained that the situation became increasingly difficult to handle with the passing of time, both because they got frustrated with their own inabilities to perform at their pre-injury levels and because of a perceived change in accommodation efforts from managers and in colleagues' understanding of their situations.

Some reported low job control before the injury and experienced a further reduction after TBI. More typically, a reduced work ability and a change in work assignments or in position/status influenced the job control experienced. This sometimes incited a wish to change the future employment situation. At T2, Mary worked in a 40% position, had stressful and demanding tasks, had a low degree of job control, and doubted her future work prospects. She was assigned new work tasks, and she had lost her position as a manager. She felt trapped in her current position but found it difficult to apply for other jobs: 'What kind of professions exist where you don't use a screen and aren't exposed to noise?' At T2, the work pace, a stressful work environment, and the continued low work attendance (30% RTW) became increasingly difficult to handle for Susan:

> 'There were a lot of appointments and routines that changed (…) there were a lot of things that I missed out on when I worked only a few hours a day for a few days a week'. (Susan, T2)

In 13 of the 38 cases, the informants were managers themselves at T1. At T2, two of them had changed occupational statuses and were now employees, and one was unemployed. For those who changed positions, workload, personnel responsibility, and work demands were the most frequently mentioned barriers. Our findings indicated that being in a managerial position and experiencing TBI can also contribute to low job control because of the workload and responsibilities inherent in such positions. Additionally, the potential loss of authority, status, or position may be difficult to handle. Marvin's case (unemployed at T2) illustrates these challenges:

> I'm not important; I don't feel important anymore (…) After all, I'm in a senior management position where I can't keep up, and it's obvious that I could end up in a situation because of this. (…) a big failure and defeat for someone like me. (Marvin, T1)

Barriers in the organizational work environment

The third most frequent main barrier category was the organizational work environment. Here, we found the following factors important to RTW processes: *restructuring processes, lack of resources, inability to offer alternative tasks, a work that demands flexibility and overtime, unstructured work, type of work (i.e., screen work, customer-related work, time pressure, and travel activities), positions with high responsibilities, and lack of competence among colleagues to perform the employee's tasks*. Barriers within this category appeared in 19 of the 38 cases, most often at T1 only (n = 12) but also at both time points (n = 4) or at T2 only (n = 3).

We found that work demands sometimes served as barriers to RTW processes when management found it difficult to balance individual and organizational needs (i.e., when it was difficult to find alternative work tasks and/or if there was a general lack of resources in the company). Andrew's case exemplifies this. Andrew was working in a small, understaffed company doing blue-collar work. Pre-injury, he worked hundreds of hours overtime yearly. His manager considered him 'a good worker'.' Post-injury, the expectation and necessity of long work hours, the company's inability to provide alternative work, and the lack of TBI knowledge made the situation increasingly difficult for

Andrew's colleagues and managers. At T2, additional barriers (unsupportive management and workplace conflicts) also surfaced. His manager expressed frustration:

> If he must leave [work at any point during the workday] because he can no longer work, someone else must take over for him; it's not popular (…) then they get more to do (…) You can't force everyone to (…) take care of him. (Andrew's manager, T2)

Paula's case represents another example of how barriers in the organizational work environment acted together with barriers in all the other categories (six barriers at T1 and four at T2). Paula was a middle manager. The workplace was undergoing restructuring at T1. Workplace conflicts, poor relationships between management and employees, and high sickness absence rates were significant. Paula had a position with a high degree of responsibility, and there was a lack of competence among her colleagues to perform her work tasks. From her manager's point of view, the degree of accommodation was high; they had changed her work tasks and work schedules. However, Paula expressed frustration about management and felt 'unwanted'. She had a low degree of job control at both time points. Her RTW progress was slow (20–40%). At T2, her manager found it increasingly difficult to balance individual and organizational needs:

> We've already tried to remove stress at work by limiting her number of tasks and by changing them, but now we've removed almost everything … So, if I remove more now, she can just as well be 100% sick. (Paula's manager, T2)

Barriers regarding knowledge-related aspects

We found that knowledge-related aspects acted as barriers in 18 cases, mostly at T1 (n = 13), followed by two cases at both time points and two cases at T2 only. We identified two types of knowledge deficiencies that seemed to act as barriers to RTW processes: (1) lack of TBI-specific knowledge (n = 20) and (2) lack of knowledge about the employee (n = 3).

Both managers and employees described TBI as an invisible condition and found this a challenge on its own, especially because they lacked TBI knowledge. Employees sometimes felt misunderstood or distrusted by their colleagues or managers, who did not have enough information about their conditions, found their challenges dubious, or simply did not accept their low level of work ability. In turn, this became associated with their sense of job control, well-being, and mastery. Several employees expressed that they would have preferred a more visible physical injury and that they found it challenging that it was largely up to them to convey how they felt at all times:

> (…) you almost walk around and apologize a little. Because you get a constant reminder that you're sick. Okay, I've hit my head, and I've got a head injury. It's invisible, and I appear completely normal, but sometimes, I get a wave of dizziness and nausea, etc. (Peter, T1)

> It would've been much easier to have a broken arm because that's visible. You become very vulnerable when you're tired and depressed. It's also not easy for the manager to work with people who are sick like me. Be that kind of support and… These are quite demanding issues, but dialogue with the employer is important. (Jill, T2)

Some managers found it challenging to give appropriate support in RTW processes because of the uncertainty and ambiguity they experienced and because they had limited knowledge of TBI and could not 'see what's wrong':

> Maybe it's an injury, maybe it's a condition, maybe there's a little placebo effect there, you just don't know. (Lou's manager, T1)

> What I see and what he says don't always correspond, so I think there's a lot I don't know. (Dennis' manager, T2)

Andrew's manager explained how the lack of knowledge about handling TBI-related challenges became an obstacle to his ability to provide suitable accommodation and that he found the uncertainty of the situation difficult to manage:

> It's difficult not to have a clear prognosis and an escalation plan for work recovery. (Andrew's manager, T2)

We also found that the managers' prior knowledge of the employees was relevant in RTW processes. In three cases, the employees had TBI when they were newly hired or shortly after getting a new manager. In these cases, relational challenges in the manager–employee relationship took place, and the managers experienced the situation as even more difficult to handle.

> [The employee] tends to work more than the assigned 60% and more than what's good by, among other things, working from home. I think that influences fatigue. [The employee] is very ambitious and happy to work (…) but has a low capacity to tackle strain (…) I've only been the manager for 2 months before the injury, so I haven't really seen a fully functioning person. I don't know whether the challenges are injury related. (Mary's manager, T1)

At T2, Mary's manager also underlined the complexity of providing support when knowledge of the employee's condition and needs was insufficient:

> I wasn't aware of her depression at all until quite far in the process. (…) An adapted physical work environment wasn't enough. It wasn't enough to have contact once a week, talk together, and see how things turned out. (Mary's manager, T2)

Discussion

We identified barriers to RTW processes related to four main categories and 10 subcategories: (1) barriers in the psychosocial work environment (*workplace conflicts, unsupportive management, and insufficient or excessive social support*), (2) barriers regarding characteristics of the employee (*employee regarded as a problem, being a manager with TBI, and a low degree of job control*), (3) barriers regarding the organizational work environment (*organization of work and physical arrangements*), and (4) barriers regarding knowledge-related aspects (*lack of employee knowledge and insufficient TBI/RTW knowledge*).

Management issues seem to permeate all four barriers, as described below.

Organizational flexibility and management

In some cases, aspects of the organizational work environment complicate RTW processes. This is particularly apparent if the workplace is characterized by restructuring processes, a lack of resources or an inability to offer alternative tasks, a work that demands flexibility and overtime, unstructured work, positions with significant responsibilities, and a lack of competence among colleagues to perform the employee's tasks. Workplace restructuring, in general, is often associated with adverse effects on the psychosocial work environment, individual health, and increased sickness absence rates (Bambra et al. 2007), which are caused by increased job strain or stress (Kivimäki et al. 2003; Korunka et al. 2003) or job insecurity (DeWitte 1999). Some cases in our study showed that restructuring can make RTW processes even more demanding because it increases the work pressure on everyone.

We found that high work pressure and a high work pace are relevant in RTW processes. This implies that work environment factors that are generally found to be harmful to work-related health and well-being (Kompier 2002; STAMI 2018) may act as barriers to RTW processes as well. We also found support in previous research that both employees and the workplace need to adapt in order to engage in RTW processes successfully (Gensby et al. 2019; Kielhofner et al. 1999; Rubenson et al. 2007). For the manager, a lack of organizational flexibility makes it difficult to contribute to customized facilitation. In line with other studies, we found that low organizational flexibility may contribute to the development of workplace conflicts in RTW processes, especially when resources are scarce (Enehaug et al. 2016; Oxenstierna et al. 2011).

According to Section 4–6 of the Norwegian Working Environment Act, management is responsible for the accommodation of work tasks in RTW processes *and* for the overall work organization and environment. This sometimes constitutes a challenge in RTW processes because the manager must *balance the needs of the organization, of the work environment, and of the individual*. Consistent with previous research, we found that employer support is important and that it can either enhance or hinder RTW processes (Donker-Cools et al. 2018; Ellingsen & Aas 2009; Libeson et al. 2020; Lundqvist & Samuelsson 2012; Matérne et al. 2017; van Velzen et al. 2011). Management support may be hindered by insufficient knowledge about TBI or the employee's condition and needs. Furthermore, we found indications that insufficient knowledge may make managers attribute challenges in RTW processes to 'employee flaws'.

Unsupportive management contributes negatively to an employee's job control when managers express doubts about the severity of their condition. When employees are deprived of work duties, responsibilities, or developmental opportunities or when they experience a loss of career advancement possibilities, the manager–employee relationship is affected in a negative way. Relational challenges are especially prevalent in cases in which the employee is newly employed before the injury. In such cases, the manager lacks knowledge about the employee's prior work performance.

Both employees and their managers described TBI as 'an invisible condition'. Managers can find it challenging to find appropriate measures in RTW processes if they cannot 'see what is wrong' and have limited knowledge of TBI or of the employee. This finding partially corresponds to that of MacEachen et al. (2012) in their study of vocational retraining services for injured workers, which addressed the need to focus on inability, as well as ability, in RTW processes (MacEachen et al. 2012). In accordance with Johansson and

Tham (2006), we found that challenges related to the invisibility of TBI may also affect employees' well-being, mastery at work, and the experienced loss of control.

Managers experiencing TBI face additional challenges

Being in a managerial position and experiencing TBI can be extra burdensome because of the workload and responsibilities inherent in this position. We found that worries concerning the potential loss of status, authority, and position added pressure for managers with TBI. These findings are supported by a Swedish study of physicians' assessments of their work capacity to certify sickness absence. Bertilsson et al. (2018) identified reasons other than decreased work capacity as relevant to physicians' assessments of the need for sickness benefits, such as the possibility of 'losing face' if the person did not perform their work duties well enough or when people in managerial positions risked being unable to return to their former positions.

The time aspect

Several managers in our material expressed frustration concerning the slow pace of their employees' recovery processes. We found that the perceived pressure to get well and retain full work ability increased with time. This is partially in line with a study by Johansson et al. (2016), which showed uncertainties about work performance, sustainability of health, and efficacy at work two years post-RTW processes. Some employees experienced a low degree of work ability and job control despite being back 100% in their positions. Employees with TBI may find the job per se unmanageable because of its high demands and the detrimental effects of TBI, and despite managerial efforts to facilitate work. This finding is in line with that in the study of Karasek and Theorell (1990), who showed how high demands and low job control can influence mastery and health at work. Strauser et al. (2020) stated that TBI-related challenges, such as forgetfulness and difficulties in understanding messages, may affect a person's performance and job satisfaction. We found that a low job control makes some consider the employee's continuation in the current job to be the lesser of two evils, as they do not have sufficient confidence regarding their work ability to change jobs.

Our findings suggest that accommodation must be understood from a long-term perspective to prevent the potential development of workplace-related barriers to RTW processes. This corresponds to Matérne and Lundqvist's (2017) study of RTW processes after TBI. We suggest that the barriers identified in this study can help explain why many employees with TBI find work difficult, even when they have returned to work full time, and why some experience RTW processes as more complex than others do.

Methodological considerations

A strength of this study is the richness of the interview data across workplaces, positions, and time. We interviewed both managers and employees, and we repeated the interviews 1–1.5 years after the first RTW attempt. In addition, repeated interviews resulted in more

nuanced, reliable, and extensive data (Kvale & Brinkmann 2009) and made processual case analysis possible. The interviews at T2 added to the knowledge of barriers to RTW processes, as many potential barriers were limited at T1 or did not surface before T2.

In line with Eisner's perspective on *consensual validation* (Creswell 2013), the study has undergone several rounds of quality assurance, as described in the Data and Methods section. The study design, data collection, and data analysis were carried out by several researchers. The findings were continuously discussed and problematized.

One limitation of this study was that dropout within cases made some of the case development trajectories incomplete, so we gathered lesser data from managers. The findings reflect only participants in the study and may not be generalizable to all individuals who attempt to return to work, or to their managers. Because of the limited number of blue-collar cases, transferability probably mainly concerns white-collar cases. This may imply that the participating managers were more invested in RTW processes than those who chose not to participate.

Even so, we argue that similarities across cases indicate that the identified barriers have transfer value beyond the included cases. Although the cases appear in different organizational contexts and sectors and among employees with TBI in different types of positions and with different backgrounds, there are surprisingly many similar descriptions of barriers to RTW processes. As such, the study reveals significant aspects of these barriers to RTW processes and may contribute to the development of future vocational rehabilitation programs.

Conclusion

This study of RTW processes after TBI shows that the role of managers is important in addressing the barriers involved, regardless of whether these originate from the organizational or psychosocial work environment; from a lack of knowledge about TBI and/or RTW processes, or the employee; or from ways of characterizing the employees. Managers' knowledge of RTW processes, in general, and TBI-related challenges, in particular, potentially reduce barriers and thereby contribute to balancing the needs of the organization and the individual. A general lesson from this study is the need for a long-term focus on RTW processes because many barriers either surface or become increasingly important with time. Knowledge development concerning work-related health may also prove important for managers when handling RTW challenges.

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Appendix: Informant overview

Informants with TBI by time point, identified barriers, and background variables

Fictive case name	Informant group (intervention & control)		Identified barriers	Gender	RTW (%)	Position	Sector	White/blue collar	Branch
Peter	**I**	**T1**	–	M	30	Manager	Public	W	Public administration
		T2	F		100	Manager	Public	W	
Mary	**I**	**T1**	A, E, G, K	F	15	Manager	Private	W	Industry
		T2	D, E, F, H, I, K		40	Employee	Private	W	
John	**I**	**T1**	H, K	M	100	Manager	Private	W	Industry
		T2	–		100	Manager			
Nina	**I**	**T1**	K	F	50	Manager	Private	W	Retail
		T2	J, K		80	Manager			
Jill	**I**	**T1**	D, F, I	F	30	Employee	Private	W	Insurance
		T2	E, I, K, C		80	Employee			
Susan	**I**	**T1**	E, F, K, C	F	20	Employee	Private	W	Insurance
		T2	A, E, F, K, C		30	Employee			
Mick	**I**	**T1**	E, H, I	M	60	Employee	Public	W	Public administration
		T2	–		100	Employee			
Rhonda	**I**	**T1**	I, H	F	0–30	Employee[5]	Public	W	Higher education
		T2				Unemployed			
Belinda	**I**	**T1**	F	F	40–50	Employee	Public	W	Public administration
		T2	–		100	Manager			
Harry	**I**	**T1**	E, H, K, C	M	50	Employee	Private	B	Business services
		T2	E, H, K		100	Employee			
Allison	**I**	**T1**	–	F	100	Manager	Private	W	Industry
		T2	–		100	Manager			
Andy	**I**	**T1**	–	M	100	Manager	Public	W	Health
		T2	–		100	Manager			
Andrew	**I**	**T1**	A, E, H	M	40	Employee	Private	B	Building and construction
		T2	A, E, I, C		80	Employee			

(*Continued*)

Fictive case name	Informant group (intervention & control)		Identified barriers	Gender	RTW (%)	Position	Sector	White/ blue collar	Branch
Paula	**I**	**T1**	A, E, H, I, K, C	F	20	Manager	Public	W	Health
		T2	E, I, K, C		40	Employee			
Elisabeth	**I**	**T1**	H	F	60	Employee	Public	W	Public administration
		T2	E, F, I, K		100	Employee			
Noreen	**I**	**T1**	–	F	100	Employee	Private	W	Business services
		T2	–		100	Employee			
Paul	**I**	**T1**	A, H, C	M	40	Employee	Private	B	Building and construction
		T2	*Unavailable at T2*						
Leyla	**I**	**T1**	K, H	F	30	Employee	Public	B	Retail
		T2	A, K		80	Employee			
Harrison	**I**	**T1**	–	M	80	Employee	Private	W	Industry
		T2	C		50	Employee			
Leonard	**I**	**T1**	F	M	30	Manager	Private	W	Business services
		T2	–		100	Manager			
Suzanne	**I**	**T1**	A, E, H, I, K, C	F	30	Manager	Private	W	Business services
		T2	E, F, K, C		100	Manager			
William	**I**	**T1**	B	M	50	Employee	Private	W	Business services
		T2	–		100	Employee (new job)			
Antonio	**C**	**T1**	A	M	50	Manager	Private	W	Business services
		T2	A		100	Manager			
Molly	**C**	**T1**	B	F	50	Employee	Public	W	Public administration
		T2	A, F, I, C		60	Employee			
Marvin	**C**	**T1**	B, F, I, J	M	20	Manager	Private	W	Business services
		T2	–		0	Unemployed			

Fictive case name	Informant group (intervention & control)		Identified barriers	Gender	RTW (%)	Position	Sector	White/ blue collar	Branch
Tony	**C**	**T1**	B, H, K	M	80	Employee	Public	W	Public administration
		T2	*Unavailable at T2*						
Jonathan	**C**	**T1**	D, E, F, G, H, I	M	50	Employee	Private	W	NGO
		T2	A, E, F, H, C		50	Employee			
Gabrielle	**C**	**T1**	A	F	30/100	Manager	Private	W	Restaurant
		T2	–		100	Employee	Public		Education
Elena	**C**	**T1**	B, E, F, C	F	100	Employee	Public	W	Education
		T2	–		100	Employee (new job)			
Neil	**C**	**T1**	–	M	60	Manager	Private	W	Retail
		T2	–		100	Manager			
Liv	**C**	**T1**	A, H	F	30	Employee	Private	W	NGO
		T2	A, C		60	Employee			
Lou	**C**	**T1**	H	M	100	Employee	Private	W	Business services
		T2	*Unavailable at T2*						
Marianne	**C**	**T1**	A, E, H, I	F	70	Employee	Public	W	Research
		T2	E, D, F, I		100	Employee			
Michael	**I**	**T1**	A	M	20	Employee	Private	W	Business services
		T2	–		100	Employee			
Dennis	**I**	**T1**	–	M	20	Employee	Private	B	Health & social
		T2	E, H, K		40	Employee			
Adrian	**I**	**T1**	A, E	M	50	Manager	Private	W	Building and Construction
		T2	–		100	Manager			
Jennifer	**I**	**T1**	E, K, C	F	100	Employee	NGO	B	NGO
		T2	–		40	Employee (new job)			
Carol	**I**	**T1**	A, D, E, F, G, I, K	F	20	Employee	Private	W	Retail
		T2	A, E, I, C		100	Employee			

Notes

[1] Of these 45 individuals, 15 employees with TBI from the control group in the RCT study and 30 employees from the intervention group were asked to participate in the case study.

[2] For analytical purposes, we also recorded the extent to which the employees had returned to work at T1 and T2. Individual RTW statuses are presented in the Appendix, and an overall analysis of the employees' RTW statuses is presented in the Findings section when relevant to the thematic analysis.

[3] Psychological work factors relate to the experience of the work situation and work content. Social work factors are about interpersonal interactions at work. The psychosocial work environment consists of both aspects of work (www.stami.no). Unsupportive management (see Figure 1) can be seen as part of both the psychosocial and organizational work environments, but as our analysis showed that the psychological aspect of unsupportive management was most important, we considered this a subcategory of the psychosocial work environment.

[4] The organizational work environment includes the structural and formal conditions in a workplace.

[5] Had a temporary position before TBI, tried returning to work four times at the same workplace but could not manage more than 30% of the job before termination of the job contract