


Priorities for returning to work after traumatic injury: A public and professional involvement study

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British Journal of Occupational Therapy
2022, Vol. 0(0) 1–10

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DOI: 10.1177/03080226221107772

journals.sagepub.com/home/bjot



Abstract

Introduction: Following traumatic injury, occupational therapists (OTs) are pivotal in supporting people to return-to-work (RTW) and regain independence. Aim: to identify priorities for RTW after traumatic injury and highlight barriers hindering the process.

Method: We recruited 17 participants with direct (i.e. trauma survivor [$n = 11$]; OT trauma survivor [$n = 2$]) or indirect (i.e. OT [$n = 4$]) experience of returning to work following traumatic injury. Online consultations, lasting 60 min, were guided by a semi-structured script ensuring relevant topics were covered. An inductive approach was used for coding themes using thematic analysis.

Findings: Sense of purpose, identity and social interaction were greater priorities for RTW, than financial stability. Major barriers were: pain and fatigue; adapting to physical changes; impacts on mental health; and lack of support (healthcare and the workplace). Participants (public and healthcare professionals) reported a lack of vocational rehabilitation in supporting trauma survivors RTW, but advocated occupational therapy for psychological recovery; purposeful engagement in occupations; and community support.

Conclusion: Restoring an individual's self-identity and social connections, whilst helping control pain and fatigue, should be prioritised when planning occupational therapy for those returning to work after traumatic injury. This study was limited to 'returners', but can inform occupational therapy interventions for RTW.

Keywords

Vocational rehabilitation, return to work, occupational therapy, amputation, limb loss, major trauma

Received: 22 October 2021; revised: 20 May 2022; accepted: 30 May 2022

Introduction

Traumatic injury, also known as major trauma, refers to serious and often multiple injuries where there is a strong possibility of death or disability (National Audit Office, 2010; Kehoe et al., 2015). Between 2015 and 2016, traumatic injuries resulted in more than 700,000 hospital admissions (individuals aged 16–69) in England alone. Injury is a well-recognised contributor to work absence, presenting a major burden for survivors, family members and the UK health and social care system (Woolf and Pflieger, 2003), with many struggling to return-to-work (RTW).

In 2012, due to the lack of regional organisation and poor level of care offered to patients with multiple serious injuries, the NHS reorganised services into major trauma networks. The aim was to prevent premature death and improve health outcomes, leading to a 20% increase in survival rate (Moran et al., 2018). However, as more individuals survive trauma, there is a growing number requiring long-term rehabilitation (Roberts et al., 2020).

Many trauma networks have established links with social care and community sectors for occupation-based rehabilitation, with an aim of supporting trauma patients RTW; this is known as vocational rehabilitation (VR). However, VR for injured people remains underdeveloped and inconsistent across the UK. Many trauma survivors continue to experience

physical, social and psychological consequences, such as pain, fatigue and depression, which impact ability to RTW and quality of life (Gross et al., 2018; Senthana et al., 2020). These long-term consequences disrupt daily routine and affect occupational performance in activities of daily living, ultimately impacting on a person's ability to return to, and remain in work (Desiron et al., 2011). Rehabilitation to support RTW is a key priority for major trauma survivors and health services. However, trauma patient's needs are frequently unmet, due to a consistent lack of support from rehabilitation services across the UK (Kettlewell et al., 2021).

Evidence suggests that not working post-trauma negatively affects quality of life, mental and physical wellbeing. A study of UK major trauma patients by Spreadborough and colleagues (2018) indicated persistent levels of mental health, physical and social functioning problems in all patients following treatment for severe injuries, reducing the overall RTW rate. In

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addition, anxiety, pain, social interaction and mental functioning were significantly related with not making a complete RTW (Spreadborough et al., 2018). Research by Baldwin and Brusco (2011) found that employment improves health and is essential to recovery; it provides individuals with economic resources to participate in society, helps meet psychological needs and is instrumental in defining identity. Restoring the ability to work is a crucial element in the rehabilitation process and fundamental for both physical and mental wellbeing. However, trauma rehabilitation services across the UK remain poorly developed; only 5% of adults receive specialist rehabilitation post-trauma (Healthcare Quality Improvement Partnership, 2016). Rehabilitation services still represent a relatively small part of the NHS system, despite the rising demand in meeting the rehabilitative needs of complex patients (Moran et al., 2018; Roberts et al., 2020).

Supporting people to stay in, or RTW is an integral part of occupational therapy practice, with work being an essential occupation for maintaining health and wellbeing (RCOT, 2019). Occupational therapists (OTs) are well-placed to support trauma patients in returning to employment; they can assess work readiness, work performance, and advocate and/or facilitate workplace adaptations (Dorsey et al., 2017). Although occupational therapy has been shown to positively influence RTW after major trauma (Desiron et al., 2011), NICE guidelines on major trauma service delivery lack specific guidance on VR for trauma survivors (2016), particularly the role of occupational therapy.

Vocational rehabilitation services for traumatic injury cannot be commissioned without high-quality evidence. A 6-year multicentre programme is currently underway to assess the feasibility of a VR intervention to support RTW and improve quality of life for people post-trauma (Kendrick et al., 2021). OTs will be trained to deliver the intervention, as they can facilitate complex discharge planning, the reviewing of functional abilities, vocational activities and help determine patient needs. However, whilst this programme is designed around occupations, there is little knowledge of people's priorities for RTW after traumatic injury. In developing effective VR programmes for major trauma survivors, and to support the occupational therapy evidence-base, one must first involve the service users and service providers in determining the people's priorities for returning to work. This can also help highlight barriers in the RTW process (NICE, 2018).

Public and patient involvement is valued in occupational therapy, with recent guidance for publications (De longh et al., 2021), so that service users' contributions in research can be recognised. This public involvement study aimed to: 1) identify people's priorities for RTW after traumatic injury and 2) identify barriers hindering the RTW process. This knowledge can consequently inform the development of future occupation-based programmes, and further support the evidence-base for occupational therapy, in VR following traumatic injury.

Method

Patient and public involvement

This study invited members of the public and healthcare professionals to help inform research and practice, by sharing

their lived experiences, and insights into care provision and occupational therapy practice. Participants were deemed 'public' if they were trauma survivors, and 'professional' if they were occupational therapists with experience of RTW (i.e. having provided or/and received support). Consultations were conducted between November 2020 and January 2021.

Public and professional recruitment

Potential participants were contacted through the major trauma centres in Southern England, professional networks (including Wessex Academic Health Science Network and University of Nottingham) and online advertisement via social media (including Twitter and Facebook pages), and posters distributed across Southampton (UK and the Prosthetic Rehabilitation Centre, Queen Alexandra Hospital (Portsmouth, UK). Due to Coronavirus (COVID-19) restrictions, and the closure of public places, recruitment was consequently conducted online.

The lead researcher (JG) contacted the Director of Rehabilitation of the Wessex Trauma Network (PW) to explain the study aims and methods, and the recruitment media was subsequently co-produced with the additional involvement of a patient advocate. Public and professionals interested in partaking in the study contacted the student researcher (AE or SA), and consented by responding via email or telephone. They were sent a semi-structured consultation script and an information sheet within 48-h, before a one-to-one online consultation was arranged. Opportunity was given for participants to ask questions prior to their interview (online or via telephone).

Participants were eligible if they were: aged over 18 years, able to access Microsoft Teams, fluent in English language and had experience of RTW following traumatic injury (moderate or severe), and/or provided occupational therapy for those who RTW following traumatic injury. The criteria were set in place to ensure members of the public had relevant experience to the project aims. However, there were no exclusion criteria, as the study adhered to national public and patient involvement guidelines (INVOLVE, 2021).

Participant demographics

Seventeen individuals from the Wessex Trauma region, UK, participated in consultations. Eleven had experienced traumatic injury and the RTW journey (5 female), four were occupational therapists (3 female) having supported trauma survivors and two were occupational therapists having experienced traumatic injury (2 females) (see Table 1).

Online consultations

Due to COVID-19 restrictions, public consultations took place online using Microsoft Teams. Each participant attended a 60-min video call, which was facilitated by a student researcher (either AE or SA) and the lead researcher (JG). A semi-structured consultation script, which was co-produced with the Wessex Trauma Network (PW), was used to direct the audio-recorded conversation and prompt participants (Figure 1).

Table 1. Demographics of public and professional participants.

Participant; consultation date	Sex; age	Employment status	Living alone (Yes/No)	Notes (including type and duration since accident)
Jenny; Nov 2020	Female; 45–49 years	Part-time	No	MSK trauma; road traffic accident; < 5 years.
Gary; Nov 2020	Male; 35–39 years	Full-time	No	MSK trauma; road traffic accident; 5–10 years.
Helen; Nov 2020	Female; 50–54 years	Full-time	No	Occupational therapist who works in vocational rehabilitation (South-West England); 5–10 years' experience.
Ben; Nov 2020	Male; 37 years	Part-time	No	Traumatic amputee (Greater London); 5 years, 6 months.
Alison; Nov 2020	Female; 44–49 years	Full-time	No	Moderate trauma injury (South-West England); 2 years, 7 months.
James; Nov 2020	Male; 35–39 years	Student (full-time)	No	Occupational therapist with MSK injury from road traffic accident in 2015 (South-West England); <2 years' experience.
Mandy; Nov 2020	Female	Full-time	No	Occupational therapy assistant, who is a double amputee (South-West England).
Lewis; Nov 2020	Male; 35–39 years	Part-time	No	MSK trauma; road traffic accident (South-West England); 2 years.
Zhi; Nov 2020	Female; 40–44 years	Full-time	No	Occupational therapist who works in orthopaedics (South-West England); 5–7 years' experience.
Tony; Dec 2020	Male; 50–54 years	Full-time	No	Moderate trauma injury (South-East England); 3 years.
Nina; Dec 2020	Female; 52 years	Full-time	No	Occupational therapist who works in vocational rehabilitation (South-West England); 5 years' experience.
Tim; Dec 2020	Male; 44 years	Full-time	No	MSK trauma (South-West England); 2 years
Anton; Dec 2020	Male; 40–44 years	Part-time	No	Moderate trauma injury (South-West England); 8 years.
James; Dec 2020	Male; 68 years	Part-time	No	MSK trauma – elbow, humerus and nerve damage (Nottinghamshire); 4 years.
Andy; Jan 2021	Male; 45–49 years	Part-time	No	Traumatic amputee; <4 years.
Coleen; Jan 2021	Female	Part-time	No	Traumatic amputee.
Rachel; Jan 2021	Female; 40–44 years	Full-time	No	MSK trauma – ankle dislocation and fibula fracture (South-West England); 3 years

Before each consultation, and at regular intervals during, public participants were asked if they felt comfortable and were able to continue discussing their experiences. To ensure the participant's narratives were not misinterpreted from audio-recordings, handwritten notes were taken during consultations and subsequently typed-up with participants pseudonymised, before being stored on a password-protected, institutional server.

Data analysis

An inductive thematic analysis was conducted to gain further understanding from consultations with public partners (Braun and Clarke, 2006). This qualitative method of interpretation identifies, analyses and reports upon themes within a data set. Field notes and audio-recordings of consultations were transcribed verbatim and anonymised by the student researchers. Thematic analysis was adopted due to its suitability for public and patient involvement, whereby participants are partners within the research (Evans et al., 2016). Two researchers (SA and AE) read the transcripts to familiarise themselves with the data, before independently coding the data. The researchers then reconvened to share and agree codes and themes. Finally, they reviewed the codes, identified themes and selected quotations to support each theme.

Results

Twenty-three individuals were initially contacted in recruitment, with three not eligible and three not responding to follow-up contact. The majority of individuals contacted us in response to advertisement through major trauma centres

(approx. 40%; these included Wessex, Sussex and East Midlands), this was followed by social media (approx. 30%), professional networks (approx. 20%; including university contacts) and public advertisement (approx. 10%; i.e. posters). Snowball sampling occurred once we had engaged with the trauma centres in online recruitment, particularly through patient and public involvement groups.

Public participants had either direct experience of traumatic injury, or indirect experience through supporting trauma survivors (see Table 2). Four main themes and thirteen sub-themes were identified, representing: the priorities and barriers for returning to work after traumatic injury, experiences of OTs and opportunities for OTs in supporting RTW. The themes were prioritised based on our participant demographic, in that the majority were people having returned to work, voluntary work or education for at least 80% of hours pre-injury (Kendrick et al., 2021).

Theme 1: Priorities for returning to work

1.1 Sense of purpose and identity. For most participants, regaining a sense of purpose and identity were the main priorities for RTW. It was apparent that individual contributions to society, daily routines and own purposes are, in part, met through the workplace and work. A consequential loss of purpose, through work sickness due to traumatic injury led to feelings of boredom:

“My main priority was having a purpose again. I spent a year being unable to do anything due to the physical injuries and felt very frustrated and bored”

Questions (for trauma survivors):

1. What do you know about the purpose of vocational rehabilitation?
 2. Do you know about the role of occupational therapy in vocational rehab?
 - a. Were you supported by an occupational therapist(OT) during your recovery / rehab?
 - b. Can you explain whether occupational therapy or the support from a job coach made a difference to your quality of life?
 - c. Can you explain how an OT / job coach helped you cope physically and/or emotionally?
 3. In your experience, what services are available to support people who have trauma injuries, including amputation?
 - a. How do people access this support? Was it easy to access?
 - b. Are there vocational rehab services available to you locally?
 - c. In your opinion, how can these gaps be addressed or improved?
 4. Did you feel supported by your social network, including family and friends?
 - a. If so, how did they get involved in supporting you?
 5. Did you feel supported by your workplace?
 - a. What support did your managers offer; adaptations, phased RTW, role adjustment?
 - b. Did service providers (e.g. Job Centre, work coaches, healthcare professionals) communicate with your employer?
 6. Were there any barriers that hindered you from returning to work?
 - a. Fatigue, mental health problems, lack of support, pain and/or needing prostheses?
 - b. Which are these were most impactful?
 - c. What needs to be done to tackle these problems and what can services offer?
 7. What were your main priorities for returning to work?
 - a. Social interaction, having a purpose, finances, independence, family, mental wellbeing
 - b. Which priority was most important to you?
 8. What elements of your rehab did you value the most?
 - a. For example, psychological support, assistive devices, being supported in engaging in daily activities, improving independence, etc.
 9. Thinking about people of working age who have trauma injury / traumatic amputation, is there a need for services that support trauma survivors in RTW?
- If there is, and you were to design a service, from your experience what are the main difficulties facing people who have traumatic injuries when returning to, and staying in work?
- o Which if these would be the most important to focus on?
 - o What therapy or support would you want?
 - o Who should deliver it? physios, OTs, teachers, employers, etc.
 - o What improvements would you expect to see in yourself (if assessed)?

Questions (for OTs):

1. In your experience, what services are available to support people who have experienced a traumatic injury / amputation?
 - a. How can people access this support?
 - b. Is it easy to access?
 - c. How can service gaps be addressed or improved?
2. What do you think are the main barriers stopping people with trauma injury from returning to work?
 - a. Which of these are most impactful?
 - b. What do you think needs to be done to tackle these problems?
3. What do you think patient's main priorities for returning to work are?
 - a. For example, social interaction, having a purpose, financial impendence, mental wellbeing.
 - b. If patients have discussed this with you, which specific priority was most important?
4. In your opinion what components of rehab do trauma survivors value the most?
 - a. For example, psychological support, prosthetic fitting, being able to engage in daily activities, regaining independence.
5. Thinking about people of working age who have had traumatic injury, is there a need for improving the services that support people in RTW?
 - a. If so, how do you think the current services could be improved?
 - b. Which areas of recovery / rehab are the most important to focus on?
 - c. Who should deliver the RTW service?
 - d. How would we know whether it has been successful in supporting RTW?
6. Do you feel that we have covered the conversation fully? Or is there anything else you would like to discuss or ask?

Figure 1. Semi-structured consultation script for public and professional participants. Attached as separate document.

In particular, providing meaning and structure to daily life and contributing to self-identity were also mentioned in relation to having a sense of purpose. Identity appeared inherently associated with one's purpose and roles, and their individual personality:

“Having a role and purpose is an important component of returning back to work...it provides meaning to one's day...this allows for good routine and structure”

“I am passionate about my role...the loss of that role had a great impact on my identity and mental health”

1.2 Social interaction. Many sought out social interaction in the workplace as a key priority for RTW. Social interaction at work was found to provide occupation and peer-support. These were important in preventing negative thoughts and self-talk, allowing survivors to rationalise and gain perspective on their situation:

“Work gives you something to focus on, keeps you busy and provides social contact and interaction”

Most participants suggested the lack of social interaction had direct effect on their mental health post-trauma. Social interaction and peer-support from colleagues were deemed important for daily wellbeing and motivators for recovery. The lack of social connection and professional isolation had a detrimental impact on mental wellbeing:

“Not seeing people made my mental health spiral downwards rapidly, and that is one of the reasons why I was keen on returning back to work”

For future VR interventions following traumatic injury, participants stressed the need for meaningful social occupations that bring a sense of purpose.

1.3 Financial stability. Some participants reported that the financial aspect of returning to work was a priority, and commonly agreed its importance in relation to caring responsibilities and supporting their families:

“I was not ready to return to work...but my priority was to financially support my family, enable them to live comfortably and pay the bills”

Others expressed frustrations around role changes in the family, leading to feelings of financial insecurity, again a loss of identity and becoming a family burden/dependent. Work and earning a wage were linked directly to pride and the shame of relying on others, with one explicitly stating:

“I wanted to earn my own money rather than financially rely on my wife for income”.

Participants also reported feeling responsible, particularly for their partners. This feeling of responsibility appeared greater for those with children:

“I felt like a burden...not able to support my kids or give them what they wanted...I did not feel like a great mum and I just wanted to get back to work and be there for them”

Theme 2: Barriers for returning to work

2.1 Pain and fatigue. All participants reported pain and fatigue as the most predominant barriers to RTW. The side

Table 2. Themes and subthemes generated from public and professional consultations.

Theme	Subtheme
1. Priorities for returning to work	1.1 Sense of purpose and identity 1.2 Social interaction 1.3 Financial stability
2. Barriers to returning to work	2.1 Pain and fatigue 2.2 Adapting to the changes in physical functioning 2.3 Impact on mental health 2.4 Lack of support
3. Experiences of occupational therapists supporting return to work	3.1 National (NHS) versus private healthcare 3.2 Duration of care
4. Opportunities for occupational therapy in supporting return to work	4.1 Service gaps 4.2 Psychological recovery 4.3 Purposeful engagement in occupation 4.4 Community support

effects of painkillers were the largest contributor to fatigue, and the persistent pain from the severity of traumatic injury restricted ability to work:

“I was given a cocktail of medication and heaps of it which had a massive effect...symptoms were violent headaches, slurred speech, vision impairment and excessive fatigue...the effects of the medications were worse than the actual injury”

An inability to perform daily activities, due to persistent pain and fatigue, were encompassing for periods of time, and participants reported this greatly limited their physical recovery:

“Fatigue and pain are the most significant factors which hinder an individual’s ability to return to work...The pain is often too excruciating which limits the ability to carry out daily tasks”

The impact of pain and fatigue on function, and notably self-pacing, was highlighted. Some suggested that they tried to perform daily tasks at a similar level as pre-injury, but this would affect their ability to perform tasks later in the day:

“I could not pace myself throughout the day and found it difficult to manage myself independently”

Although medication helped to control pain and fatigue, they often had side effects on cognitive abilities and sleep quality:

“My pain medication impacted my concentration massively and they stopped me from sleeping well, I was so tired. This impacted a lot more than I realised it would”

2.2 Adapting to the changes in physical functioning. Public participants spoke about reduced physical functioning as a barrier, particularly where there was uncertainty about recovery time. For some people, thinking about work was influenced by their physical limitations:

“It was definitely the physical barriers...lacking key strength and endurance in upper and lower limb to withstand work related activities...poor energy and high fatigue levels, poor balance and coordination to handle more intricate and detailed work”

“The most prevalent barrier is the physical. If someone is unable to physically endure an activity for a prolonged time due to deconditioning, pain and fatigue, this will be one of the biggest hurdles to overcome”

Physical functioning as a common barrier is not surprising, although for many participants, it was not purely the physical aspect. All indicated that physical wellbeing was inherently linked to their mental wellbeing.

2.3 Impact on mental health. Mental health issues resulting from traumatic injury were regarded as a main barrier to work. It was expressed that RTW is often affected by anxiety, accepting change (in body image and functional ability) and feeling excluded, due to workplace and home adaptations not being available. A common anxiety was feeling the need to exert more effort to perform habitual tasks to prove their ability to work:

“I was so worried people would think less of me, that I was not able to do my job anymore, or like they could”

“I was so fearful of rejection, being different and my manager not being able to cope with me or support my additional needs”

Many highlighted the various ways trauma impacted them psychologically (primarily depression, anxiety and/or loneliness) and recognised the detrimental effects of low mood/anxiety on the ability to perform daily occupations and engage within their communities:

“I felt very low and unhappy about my situation...unable to do the things I love to do”

“My anxieties were by far the most crippling...it made me isolate myself”

2.4 Lack of support. The lack of employer support made the process of RTW extremely difficult for some:

“It would have been useful to have more support during these difficult times, but I felt like I was being a burden, and to be honest I did not know where to get it from”

“I really wanted to return to work sooner...I felt I was able to if supported professionally and had my role adjusted by my workplace, however there was no real physical support”

Liaison between healthcare professionals and employers was regarded as an important factor in enabling people to access appropriate services and to eventually RTW. However, such liaisons were suggested to be rare, and professional signposting and guidance was lacking. In terms of workplace support, few were aware of the UK's Jobcentre Plus, particularly in work coaches. A small number ($n = 5$) were supported by a work coach, yet these were all via private healthcare and not national healthcare. The effectiveness of work coaches varied depending on level of expertise and links with therapists to understand full impact of injury, and appropriate levels of reasonable adjustments, support to remain in work. For those aware of Jobcentre Plus, they did not seek help, as they felt they had adequate support from their workplace (i.e. manager and human resources).

Theme 3: Experiences of occupational therapists supporting return to work

3.1 National (NHS) versus private healthcare. Public participants felt there were minimal NHS VR services across England. Participants felt there were more private services available, but these carried financial implications for which the majority could not fund. One participant received compensation following traumatic limb loss, others had insurance and some had personal funds for private VR. Without it, they believed their RTW would have been challenging and for some, not worth considering.

This proved the same for occupational therapy support. Almost all participants who received occupational therapy reported that they were privately funded. Despite this, those who had this support believed the quality of care received outweighed the financial costs, stating that OTs equipped them with life-long tools and skills that they did not possess before their injury.

Participants who were NHS OTs all reported that there is an overall lack of VR support for traumatic amputees. Two working in VR settings reported that they had been recruiting for an OT for 12 months, without success.

“No OT's work in our department. We have posts available, but can't recruit...”

Participants struggled to understand why there is a distinct lack of publicly funded services to support RTW.

3.2 Duration of care. Many participants felt the duration of their rehabilitation was not sufficient, especially for traumatic amputees with complex needs trying to RTW. This was mainly attributed to financial constraints when paying privately for rehabilitation. Conversely, even those working as

OTs in VR, felt the duration of care was one of the major service downfalls. This was attributed to the high demands on their service and pressure to rapidly see patients:

“...our service sticks a plaster on problems, we don't provide the longevity of rehab that our patients need”.

Theme 4: Occupational therapy in supporting return to work

4.1 Service gaps. The majority of public and professional participants expressed the widespread lack of awareness of traumatic injury in VR, in addition to the limited services available through the NHS:

“I have noticed that most vocational support offered by the NHS are for people who have neurological disorders. There was no mention of any vocational support after my injury. I am unaware of how people receive this support.”

“I don't know of many vocational rehab services locally. I have seen how vital the service can be in supporting people to return to work, so feel that this type of service should be more available across the country. From my experience there is a lack of vocational rehab services generally.”

Additionally, many participants with direct experience, reported feeling prematurely discharged from hospital, with scant signposting to community services. This appeared to apply to both professional and personal support:

“I received no vocational rehab support from the NHS. My insurance company had to pay for additional OT because I felt it was “cut short”

“The process felt so rushed, I was discharged too soon, with no professional support and I was not able to return to work”

All public participants agreed that receiving professional support, such as education and work reintegration, would have facilitated their RTW. It was suggested that occupational therapy should be better promoted (including what they do and where they work) in primary care settings. This would help to provide long term vocational support:

“OTs in primary care are essential and their presence in the long term is needed, individuals will be assisted with a RTW and in turn be able to contribute to the economy”.

“OTs are overlooked about what they can offer in the primary sector. It needs to be given more recognition and be involved more in these settings”

4.2 Psychological recovery. Participants found psychological support unsatisfactory. Participants were able to recognise that OTs were well-placed to support them when they required psychological support. In these ‘waiting times’ participants

suggested OTs could address symptoms impacting their mental wellbeing, and physical abilities to RTW. Lack of motivation was a salient issue, with pain, disrupted sleep and loss of social occupations significantly impeding their recovery. Key skills that public participants suggested should be considered in future RTW programmes were psychologists working with OTs to manage fatigue and mental wellbeing.

4.3 Purposeful engagement in occupation. Public participants mentioned difficulty engaging in activities of daily living and meaningful occupations they previously enjoyed. Some had support from social networks to re-engage in said occupations. One individual said their partner took over all household chores (e.g. cooking, cleaning and washing), however, this change in role had a significant impact on both of their mental wellbeing. Many stated that OTs should support activities of daily living and meaningful occupations, to lessen reliability on social support.

“...I would have appreciated OT support in managing returning to my hobbies, like running. I had to phase this slowly with my wife and it caused a lot of tension...”

The importance of being holistic and supporting a range of complex needs was highlighted by some:

“It would be really useful if there was a service that helped support a person with multiple needs to try and attempt a return to work or find employment, as it is difficult when you have injuries that affect your mobility...”

4.4 Community support. Participants also identified challenges within their community reintegration. This included a lack of follow-up from community services after being discharged, with some patients saying they felt ignored. Regarding community reintegration, patients faced logistical barriers that OTs could have helped them overcome. These barriers were attributed to lessened independence and confidence. One participant did not have the confidence to use public transport alone. It was suggested that OTs could address the physical and mental health barriers behind community reintegration; working on increasing their independence and confidence.

“...I think OT’s are best placed in community support. They have such a way of increasing their patient’s confidence and facilitating their independence...”

It was concluded by all participants that the OT role is underdeveloped and underfunded, making it unlikely to facilitate such support for people with traumatic injury in the community.

Discussion

Priorities for returning to work

This public and professional consultation work reports some of the key priorities motivating people to RTW following

traumatic injury. Some of the themes raised have previously been highlighted in relation to traumatic injury, particularly sense of purpose and social connections. Braaf and colleagues (2019) found that those with serious injuries reported that personal connections were important in facilitating (and motivating) their RTW. Additional facilitators that concur with our findings were work being important for their sense of usefulness and self-identity. Linley and Joseph (2011) suggest that this may be due to traumatic events triggering changes in the meaning of life for survivors, such as learning to appreciate different aspects of life. Equally, engagement in meaningful occupational roles in the work-place provides an individual with a sense of purpose and consolidation of personal identity (Fitzgerald, 2014). Work being a major component of one’s identity is common across other trauma, including acquired brain injury, (Watter et al., 2021) and in stroke rehabilitation (Alaszewski et al., 2007).

Importance of purpose and social connections through work

Work provides an individual with the feeling of social bonding, personal fulfilment and helps to structure daily routines (Fitzgerald, 2014; RCOT, 2019). When occupational performance at work is compromised, it can lead to feelings of loss, which explains why most public participants discussed the importance of returning to ‘normal’. That is, regaining a sense of purpose from work and being able to perform daily tasks independently; this was independent of the Coronavirus (COVID-19) pandemic restrictions. This supports recent research, particularly the desire to regain normality and independence following traumatic injury (Visser et al., 2021). Equally valued was social interaction, work contributes to social participation of an individual, allowing bonding and belonging to a particular group. The post-traumatic growth (PTG) theory describes how growth arises through emotional growth, strengthened relationships and an improved perspective of life after trauma (Tedeschi and Calhoun, 2004). Regaining a purpose and direction relates to emotional growth, whereas regaining social connections relates to strengthened relationship (Linley and Joseph, 2011). Given the majority of our trauma survivors had returned to either part- or full-time work, it could be argued that in confronting their changing selves, and what ‘roles’ they had lost, our participant’s recoveries were predominantly motivated by these key themes.

Financial stability and supporting the family were important, but lower priorities for RTW. Many participants were frustrated as their role had changed in their families and communities. This was mostly negative, in a lesser, dependent role, and was interrelated with self-identity, pride and responsibility for others. Similarly to Watter and colleagues findings with people returning to work following acquired brain injury (2021), identity was a main motivator for individuals in rehabilitation, in resuming their pre-injury work status and independence. Being seen as a burden was an issue for participants. This concurs with those having become unemployed due to musculoskeletal trauma facing financial

constraints, as well as frustration, and social and economic vulnerability for their family (Senthanaar et al., 2020). Interestingly, few were aware of the Jobcentre Plus, the UK's employment agency that provides job advice and work coaching. Although five were supported by work coaches to aid their RTW, these were solely through private funding, and others aware of the Jobcentre felt supported in their workplace (including occupational therapy and health). This lack of awareness suggests that the UK government could improve the promotion of work coaches and the marketing of Jobcentre Plus for people returning to work.

Barriers to return to work

The heterogeneity of experiences regarding barriers impairing RTW, raises the importance of OTs in providing holistic care for those post-trauma. Pain and fatigue were the main barriers, with chronic pain due to physical injury, fatigue and side effects of medication. This resonates with existing evidence on factors negatively affecting RTW after upper limb injury (Kuijpers et al., 2004). Reduced physical functioning combined with feelings of frustration and rejection, was recognised as having adverse effects on the mental health and wellbeing of trauma survivors. For some this was compounded by the Covid-19 pandemic, in the postponement of healthcare appointments and surgical operations. However, online therapy and exercises from healthcare professional were positive in supporting individuals' mental and physical health. This included fewer distractions, greater opportunity to rest, and greater opportunity for individualised physical exercise programmes via telerehabilitation. Lowered self-image and self-efficacy meant that many survivors would self-isolate and avoid situations they would otherwise have engaged in. This resulted in mental wellbeing and hindered an individual's ability to RTW. These findings concur with previous research (Kang et al., 2021) reporting that musculoskeletal trauma patients often experience feelings of stress, depression and isolation, which subsequently weaken their ability to engage in daily activities.

The lack of support from workplaces and health services also contributed to social isolation and feelings of loneliness, in turn, worsening self-esteem. In some instances, this was worsened by COVID-19 lockdowns, yet for most advances in telerehabilitation (for online therapy, and in socialising with family and friends) were immensely valued. It is clear that reduced mental wellbeing, pain, fatigue and lack of support, are interdependent to one's identity, and ability to engage in meaningful occupations. It is crucial that OTs incorporate these into rehabilitation programmes, and appreciate the personal experiences and barriers facing service users, holistically, in order to help them reclaim a sense of identity. This supports Desiron's review (2011) evidencing the suitability of OTs in facilitating RTW, given that OTs are well-placed to support a person's change in identity, psychological wellbeing and understand how physical and environmental factors can impact a person's occupational self (Ross, 2005). Although we did not explore what trauma survivors want in workplace interventions to support RTW, for people having experienced stroke, flexible working environments and

supportive social networks are important facilitators of long-term RTW (Alaszewski et al., 2007). This will be important as we emerge from the COVID-19 pandemic, equipped with advances in telerehabilitation and possibilities in remote working.

Occupational therapy in overcoming barriers. Several participants identified occupational therapy as a viable solution to tackle these barriers and meet the needs of trauma survivors' RTW. Others recognised the gaps in services, including a lack of professional support, education, pain management and reintegration into employment, all of which are within the scope of occupational therapy. Participants also emphasised that the existing UK rehabilitation services for trauma were inadequate; too little, too brief, and often inaccessible. A professional (OT) participant of ours stressed that the pandemic affected the management of occupational therapy VR services, as staff needed to be deployed elsewhere, and subsequently waiting times to be seen increased. Rehabilitation was deemed adequate in terms of discharge from hospital, but not in preparing them for work. This supports previous studies in UK trauma care, which show a lack of consistent VR across services, scant signposting (Kellezi et al., 2015) and gaps when transitioning from hospital into the community (Christie et al., 2016). These reinforce the argument for greater emphasis on VR and funding for occupational therapy in our health service (Kettlewell et al., 2021). OTs possess the skills to bridge the gap in rehabilitation services, however a number of our public participants were unaware of the profession and NHS VR services. For those that had received occupational therapy, they found it pivotal in restoring their independence and occupational needs.

Adaptive, work-related interventions are a core part of occupational therapy practice, and should be implemented in the VR of trauma survivors (Kendrick et al., 2021; Kettlewell et al., 2021). Our public participants' recommendations for new approaches of rehabilitation advocated for OTs working within primary care settings, particularly GP surgeries. Participants suggested that this could enable accessibility for long-term support and improve vocational opportunities for trauma survivors. This is important given the duration, and uncertainty of recovery, following trauma injury. Furthermore, participants suggested that OTs could help to manage fatigue and anxiety (as a form of psychological support), facilitate participation in meaningful occupation (which related to regaining roles) and community reintegration.

Limitations

Although successful in achieving our aims, recruitment was limited to Southern England and the Midlands. Recruitment was also limited to those who were successful in returning to work ($\geq 80\%$ of hours pre-injury), whether part-time or full-time, in the period that they were involved in the study. Future work should explore the perspectives of trauma survivors for RTW of different levels of injury severity (moderate and major trauma), work reintegration (returned and not returned to work for and socioeconomic status (particularly those

without local access to a trauma centre). It was essential for our participants to have access to a computer and the internet, and those recruited through major trauma centres were likely to have previously experienced public involvement. However, the perspectives of our sample were based on their unique experiences of RTW, which were predominantly influenced by their injury severity, their geographic location, and in that they were successful in returning to work.

Secondly, our intention was not research, but involving patients and professionals in information gathering to inform subsequent research. Our data analysis could have been improved in rigour by participant member checking of transcripts, and peer-review triangulation, by involving an independent reviewer to code a selection of transcripts (Lovegrove et al., 2017).

Conclusion

Our trauma survivors and professional participants identified priorities for RTW and barriers hindering the process, as well as providing recommendations for service improvement. The range of priorities raised illustrate the complex nature of traumatic injury, and that rehabilitation needs to be adaptive to overcome individual barriers people face in returning to work. Restoring an individual's self-identity and social connections, whilst helping control pain and fatigue, should be prioritised when planning occupational therapy for those returning to work after traumatic injury. Although our themes were developed in response to people having returned to work, this public and professional involvement study can inform future occupational therapy interventions for RTW.

It is clear that occupational therapy is suited to help support trauma survivors, and the findings of this study contribute to the evidence-base for occupational therapy in trauma rehabilitation. The study also highlights the value in involving people with lived experience in identifying solutions for people having experienced trauma. Further perspectives on rehabilitation are needed from those having experienced different levels of trauma (mild, moderate or major), and those having successfully returned, and those having not returned to work.

Key findings

- Trauma survivors prioritise regaining a sense of purpose, identity and social connections in RTW.
- Vocational rehabilitation services involving occupational therapy are scarce in England.
- Trauma survivors advocate for occupational therapy to support the RTW journey.

What the study has added

This public involvement project has identified key priorities for RTW after traumatic injury; future occupation-based interventions should help rebuild sense of purpose, self-identity and social connections for the trauma survivor.

Acknowledgements

The authors thank all of the public and professional partners who participated in this work, including academics from the University of Nottingham's ROWTATE group, who shared their time, experiences and insights for the purposes of this study. This study was supported by an RCOT Innovation award and we would like to thank the RCOT Research & Development Office for their ongoing guidance.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This project was supported by the Royal College of Occupational Therapy (RCOT) Innovation Award 2020. The award was granted to the corresponding author (JG) to support the project, 'Collaboration building with a Major Trauma Centre - supporting research-led student projects for occupational therapists'.

Research ethics

This study involves the active partnership with public and professional representatives in the role of specialist advisors, providing their invaluable opinions and knowledge based on their experiences. Ethical approval was not required for this study, although good practices in research governance were adhered to.

Statement of contributorship

JG researched literature and conceived the study. All authors were involved in protocol development, seeking advice on ethical approvals (which were not required) and recruitment of public advisors. AE and SA continued the study as their BSc research projects. This involved an update of researching the literature, organising and conducting public consultations and analyses of the findings. JG and JK reviewed each stage and provided guidance. AE wrote the first draft of the manuscript, with revisions being conducted by JG, SA and JK. PW provided clinical oversight and expertise into trauma centre practices. All authors reviewed and approved the final version of the manuscript.

Patient and public involvement data

During the development, progress, and reporting of the submitted research, patient and public involvement in the research was included at all stages of the research.

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