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Psychological Factors Affecting Return to Work Decision-Making Following Traumatic Physical Injury

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What is the ROWTATE study?

- 6 year programme of research, started 1st March 2019
- Aim: To develop, evaluate and assess implementation of a theory-based **early intervention to enhance return-to-work** and improve quality of life and wellbeing in people with at least moderate trauma
- 5 Major Trauma Centres -Nottingham, Bristol, Cambridge, Leeds, London
- Multidisciplinary study team



BACKGROUND: Impact of injury



- Injuries are a global public health problem, especially in working age adults.
- 12 months after injury, 1/3 of patients have still not RTW (returned to work) ^{Kendrick et al, 2017} and not RTW associated with **poorer quality of life** and psychosocial outcomes ^{Kendrick et al. 2011}
- Evidence links physical traumatic injury and **negative mental health outcomes** (depression, anxiety, PTSD) ^{Kendrick et al., 2017}
- Little theoretical consideration of psychological mechanisms affecting traumatic physical injury survivors: **the how**

PhD research question

- **Psychological mechanisms** affecting traumatic physical injury survivors

Study 1 Research Question: How do trauma survivors' psychological responses to injury contribute to their return to work decision making?

- Barriers to RTW after injury are complex (biopsychosocial). Predictors in the injury literature systematic reviews include:
 - Pain; severity of injuries; Clay, 2010; functional status Saltychev, 2013
 - Level of education Clay, 2010 ;Saltychev, 2013
 - Job role Cancelliere, 2014; Clay, 2010; independence in job role Cancelliere, 2014
 - Self-efficacy Clay, 2010

Psychological outcomes following trauma

- PTSD is not the inevitable outcome (5.6% of the trauma exposed)^{Koenen, 2017}
- Resilience is also common
- or Post Traumatic Growth^{Tedeschi & Calhoun, 2004} may follow post traumatic stress
 - Positive growth: individuals report experiencing a **greater appreciation of life**, more intimate **social relationships**, heightened feelings of **personal strength**, greater **engagement with spiritual questions** and the **recognition of new possibilities** for their lives
- but PTG outcomes show great variation^{Bonanno & Mancini, 2012; Muldoon, 2019}

Koenen, K. C., Ratanatharathorn, A., Ng, L., McLaughlin, K. A., Bromet, E. J., Stein, D. J., ... & Kessler, R. C. (2017). Posttraumatic stress disorder in the world mental health surveys. *Psychological medicine*, 47(13), 2260-2274.

Tedeschi, R. G., & Calhoun, L. (2004). Posttraumatic growth: A new perspective on psychotraumatology. *Psychiatric Times*, 21(4), 58-60.

Psychological outcomes following trauma

- How do we predict who is vulnerable or resilient?

- Individual differences? Wide-ranging. De-Roon-Cassini, 2009 (unpub, cited by: Bonanno & Mancini, 2012)
injury outcomes affected most by perception of human intentionality, level of education, self-efficacy, anger
- Types of trauma? – consider intentionality
- Stress and coping theory? Lazarus & Folkman, 1984
- Social support Kilic, 2016: Iraqi war survivors: more PTG for those who shared trauma and later support

- The **Social Identity Approach to Health** Muldoon 2019 argues that individual differences and demographic factors do not fully explain variation in psychological outcomes following trauma.

Another factor: Social identity influences appraisal

We are social beings

Everything we do is in the presence of others

What happens when socially isolated:

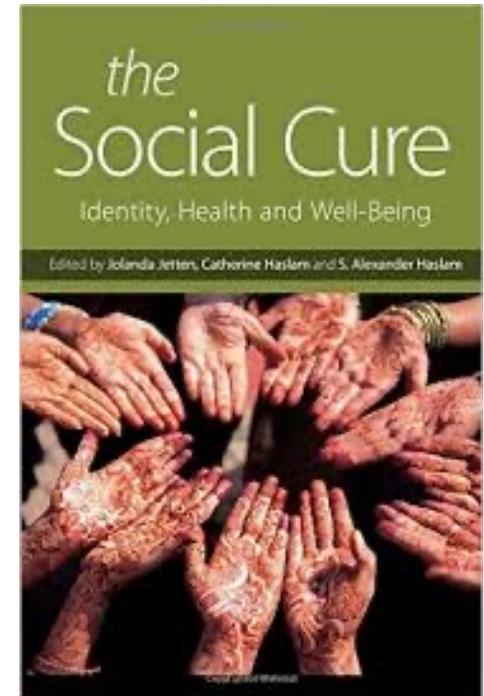
- In prisons the worst punishment is solitary confinement
- Psychologically vulnerable when unable to pursue a social life (e.g. illness or old age)
- Being cut off from loved ones is upsetting and has negative impact on health
- Social relations important to health
- Connection and engagement with others through valued group memberships



Social Identity & Health

- The “Social Cure” (Jetten, Haslam & Haslam, 2012)
- New approach to thinking about the source of well-being and new lens through which to investigate health-related behaviours (Haslam et al., 2009)

Understanding impact of stressors (including traumatic ones) and illness.





1. Primary appraisal: Effect of group identification on symptom perception

- Three studies by Levine and Reicher (1996), and Levine (1999)
 - Aim: Investigated the role of salient (important and relevant) identity in the evaluation of physical symptoms (injury).
 - No psychological account for contextual variations in symptom evaluation.
- Results: **For females:** female gender identity relevant scenarios = more serious appraisal of injury under **gender** than under **PE student** identity conditions.



2: Secondary appraisal. Available coping resources

- Helping others depends on whether the person seeking assistance is categorised as ingroup or outgroup member Levine studies, 2002; 2005
- AIM: Used the Social Identity approach to investigate the importance of group behaviour for bystander intervention.
- **Bomb-disposal officers** and bar staff Haslam et al 2005 - Group identification = support given and received from in-group members, job/life satisfaction and perceived stress.
- **Social identity resources** from important groups include **social support; purpose; belonging/social connection** Jetten 2017

Example: Acquired Brain Injury and social identity resources

SIMIC model^{Haslam, 2021}: all life changes threaten access to social identity resources

– Protective factors: number of group memberships; continuity or gain of compatible s. identities

In Acquired Brain Injury patients:

- Fewer group memberships predicted post traumatic stress^{Jones, 2012}
- Greater number of group memberships predicted lower depression^{Kinsella, 2020}
mediated through enhanced self-regulation
- Qualitative study^{Muldoon, 2019}: experience of identity loss (work, through disability); changes in access to social identity resources; continuity through family; social curse of over-protective relatives preventing social engagement outside the home



Prospective Social Identity Mechanisms

Social identity offers mechanisms affecting cognitive appraisal which influence resilience/vulnerability following trauma.

- **Primary appraisal** of stressors as being a threat, or not
 - (is injury perceived as trauma by everyone?)
 - Vulnerability/exposure by social group... e.g. women and sexual violence
- Availability of coping resources affects **secondary appraisal of coping capacity**
- **Social identity resources** from important groups
 - E.g social support; purpose; belonging/social connection Jetten 2017
 - Disruption: reduced access through the stigma of trauma (social curse)
 - New group resources from groups responding to trauma (social cure) or existing groups: family

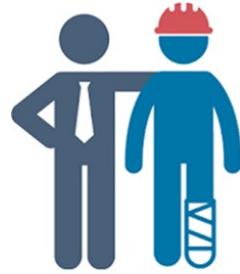
METHOD

Qualitative semi-structured interviews (n=10) and **focus groups** (x3) with trauma survivors (n=17 in total)

- encouraged participants to tell their injury and recovery story
 - explored barriers and facilitators to return to work
 - asked specifically about support and unmet needs
-
- **ANALYSIS:** theoretically guided thematic analysis, coded in Nvivo, looking for social identity mechanisms: **threats being appraised (primary appraisal); perceived capacity to cope with threats (secondary appraisal); access/disruption to social identity resources**

RESULTS: Participant details

- Age: 27-68
- 10 female, 7 male
- 15 white, British; 1 Asian; 1 Black British
- Time since injury: 6m to 14 years
- Returned to work: 14 of 17
- Most perceived themselves to be well supported



Trauma survivor Study 2 participants (n=17)			
Administrator	2	Amputation lower limb	1
Trainee surveyor (insurance)	1	Dislocation lower limb	1
District nurse	1	Knee injury (sports)	1
Dog groomer	1	Mild mental health problems	2
Finance director (freelance)	1	MSK/orthopaedic lower limb	2
Housing officer	1	MSK/orthopaedic pelvic injury	2
IT	2	MSK/orthopaedic upper limb	1
Journalist	1	Polytrauma	5
Lecturer	2	PTSD	3
Photographer	1	Severe mental health problems	1
Probation Officer	1	Spinal cord injury	2
Quantity Surveyor	1	Traumatic brain injury	6
Student	2		
Taxi driver	1		

Preliminary Findings: the main threat appraised

Changed functional capacity

*The **physical barrier** of not getting in the way, of not being able to physically get there, not being able to drive for so long. And being on crutches for so long, and **not being mobile**, and not being able to put my leg down for longer than I don't know, two minutes without it swelling and being painful.*

Male, 32, Planning Officer, lower limb injury

Appraised through valued social identities

*The social consequence of just completely being removed from everybody for some fairly significant period and then the fact that **you are kind of out of the loop I suppose at work**, that you're a) out of the habit of concentrating on involved in your job. But b) that work has kind of adjusted to manage without you so **you're no longer being included** in whatever processes are happening.*

Female, 35, Lecturer, leg break

*I was always action dad, **now I wasn't action dad**, I was, I said, I still want to be a dad, not a granddad, and that was the kind of thing that would worry me. You know, that I was just a parental figure, rather than a dad anymore, and that concerned me.*

Male, 49, IT Consultant, Polytrauma with TBI

Preliminary Findings: social isolation

Isolation during convalescence

I just, I didn't really have many friends, so it's like, I think since my accident, yeah everyone rallies around you when you're in hospital, but then when you leave hospital they tend to just sort of trickle away don't they?

Female, 27, Student, Traumatic brain injury

it just showed how little I had in my life. You know, to be waiting for a phone call at 12 o'clock, and not being able – I didn't leave the house for weeks on end. [...] Because yeah, you just look forward to that phone call that you know you're going to get at 12 o'clock. You know and yeah it's weird, you've got nothing else to focus on.

Male, 32, Planning Officer, lower limb injury

Impact on wellbeing

then you're sort of a prisoner in the house. I remember those, especially when family went on holiday, I was just sat there. They'd all got holidays booked at the same time, my husband was working, and from first thing in the morning until he came home at night, I was on my own for a spell, and those two weeks were just dreadful. The psychological bit, I felt it more that first - them two weeks. I'll never forget them two weeks. They were dreadful to me.

Female, 64, Dog groomer, lower limb break

Preliminary Findings: Value of the work identity

Sense of Purpose

part of the reason I got so down was like it's that sense of worth, you know, sense of achievement. Because I worked in a job that I love and I'm passionate about it and I really enjoy it. And when you've not got that I just felt like I didn't really have a purpose.

Male, 32, Planning Officer, lower limb injury

Social connection

I want to go back to work because I want again to mix up with the people I left, you know, so I want to join that crew again you know. So hopefully and cross fingers a family, you know. [...] I think it's because a workplace like I told you, it's like my family, so that's why everybody wants to go back with your family, you know.

Male, 45, Taxi Driver, pelvic injury

Preliminary Findings: support from work...understanding?

Team work; acceptance of functional limitations

I've got a good team, and basically I said, I want to come back to work but I can't do probably 40% of my job, because that needed me to move around and be mobile and all that sort of stuff. So work made adaptations that meant that I could return to work full-time, I didn't do any phased return or anything... [...] I just think it's just been support around me, work being good. And I think probably without knowing the adaptations they made and the way the old team have - without making it sound like I'm a burden, have changed their work to give me more of their desk-based work

Male, 32, Planning Officer, lower limb injury

Support from a place of understanding

so there was a level of understanding [pause] that I think you only get with maturity. [...] even when I was back to full time work, [pause] and she was very amenable to me, she would just give her a quick ring and say I am on my way just struggling a bit this morning, her comment would be 'you just do what you got to do, when you got to do it, and if you don't feel up to it just give me another ring'. So, I was really well supported, really well supported

Female, 68, Probation Officer, upper arm injury

Preliminary Findings: Perceived stigma and work – being judged

Perception that colleagues will judge them less able to work

again I don't know if I did tell them about my accident because I didn't want to be judged on that [...] all the jobs or work I've done since I don't normally talk about it. I just kind of obviously – again, not thinking – because I'm not ashamed about it or anything, I'll clearly quite happily chat about it. I think because I assume people don't know anything about it so they don't know how to react to it.

Female, 29, Civil Service Administrator, Polytrauma with traumatic brain injury

Withheld disability information from prospective employers

I can't tell them about the injury until after I've delivered something. [...] I don't need to tell them, but I generally have done, but I wouldn't, I would never volunteer it until I've done something. If I've delivered something, and I know that they've got no reason to worry, but I consider their judgement, I might imagine they might judge me. [...] if you've got three CVs, they all tick the box as far as the skills, one of them has had an injury that's may impact on their work pattern, because your injury, you might have a posttraumatic stress, and someone who isn't vulnerable to posttraumatic stress you're going to pick the one who hasn't, isn't vulnerable.

Male, 49, IT Consultant, Polytrauma with traumatic brain injury

Preliminary Findings: Perceived stigma and work

Seeking to avoid appearing with a disability

I don't care if you tell everybody else what I am doing, but I really don't want to make a big fuss, I don't want to be looked at, put it that way.

Female, 68, Upper arm injury, Probation Service Officer

it's a modern building, so there's a lift, so if I was in a wheelchair, I could access it, not that I ever want to go into work in a wheelchair. I think I'd prefer to work from home.

Female, 28, Journalist, Amputation

Stigma of just being off work

I think it is generally – it doesn't matter what they're off with. From experience when women come back off maternity leave after a year off or whatever it is, you have doubts – and this isn't anything against women in that situation, it could be anything. It's just the first example that come to mind. You do think, why would I get them to do it? They might take ages to get back in to the swing of it, they might not care anymore. They might be off again soon. It's kind of a stigma attached to people coming back I believe. **Male, 32, Planning Officer, Lower limb injury**

Social identity mechanisms were present

- ✓ Threat of changed functional capacity appraised through valued social identities
- ✓ Disruption of social identity resources through not being at work
 - ✓ Sense of purpose; social connection
- ✓ Perceived stigma of reduced capacity to work
- ✓ Continuity of SI resources from work
 - ✓ Support; understanding – belonging
- ✓ Importance of SI resources from family (social cure) but also some social curse
- ✓ New SI resources from peer support – reassurance/shared experiences

Practical Implications

Threat of changed functional capacity viewed through its **impact on valued social identities** (work, social connection, family): **not the injury but the social impact**

Vulnerability:

- **Social isolation** during convalescence is a wellbeing risk
- Perceived **stigma** of being judged not able to work

Resilience:

- **Disruption** of access to work social identity resources (**social connection; sense of purpose**) highlighted the **value of work as a social identity**
- Support from work (**continued access to social identity resources: social support; social connection**) = **resilience** ...through maintaining social connection?

Other sources of support – *continued family support*; **new** support from peers – injury support groups can also provide resilience
...but also some negatives from perceived impact on family

Questions and comments 🙏

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Extra slides: wider ranging evidence

Preliminary Findings: support from family identity (social cure)

Available support

I have a really, really close family, so that was probably my main sort of support in the early days. I'm very lucky that when I was in hospital somebody from my family came every single day to see me, and also in rehab as well. So that was kind of the main thing that I leaned on, I think.

Female, 28, Journalist, Amputation

having to totally depend on other people, family. Family were brilliant

Female, 64, Dog Groomer, Lower limb injury

when they come and they talk with me and they encourage, you know. [...] they always give me support and they give me encourage, don't worry we are here and if you need anything, you know, you just give us a call, you know. So people give me really, you know, good love and support and everything. And I have no words how I say to them thank you for this, you know.

Male, 45, Taxi Driver, pelvic injury

Protecting family

I knew I ticked all the boxes to be a severe depression candidate, but I was just determined for them, not for me, because you know, you do things for other people don't, well I do, so I was aware there was the threat of depression, I just wouldn't allow it to happen. I mean I felt fed up and frustrated, but there was no way I was going to make them suffer.

Male, 49, IT Consultant, Polytrauma with traumatic brain injury

Preliminary Findings: negative impact of family identity (social curse)

Withholding distress

I didn't really want to talk to my family. I didn't want to talk to my friends, because I knew they were suffering, and I know they were looking at me and sort of, and how I was and I thought, the last thing I want to do is sit down with them and say how I felt, because I thought then, that would send them into spiral and god knows what. What's wrong with this woman (laughs), and this was before I went for my counselling, and I just happened to be out one day, and I popped into the Samaritans and they were brilliant.

Female, 48, Secretary, Polytrauma with traumatic brain injury

Impact on family roles

we can't look forward to going on walking holidays together, which is what we would of probably done, or even walking near here. [Pause] well recreation is in retirement, so our lives together in a perspective of retirement (she's a teacher) and very much more restricted. [...] She gets quite down about that as I do.

Male, 65, Finance Director, Spinal cord injury

Preliminary Findings: Peer support

But actually hearing from other people who have the same issues and we have someone who kind of leads the group and they go through and ask – they know they've been dealing with brain injuries for a long time. They know the kind of things and it's very reassuring. You kind of – you're like, "Oh, right, this is not just me being weird; everyone else feels a similar kind of thing." And it does help you cope.

Male, 37, IT Planning, Traumatic brain injury

It makes a huge difference, you know, talking to other people. Yes, and then because they were in the same situation as well, and then some of the other ladies, they're even more injured than mine, so it was – then she's telling me that oh, you know, you'll get there, you'll walk and all that, which was comforting

Female, 39, Housing Support Officer, Lower limb injury