# **Rehabilitation** of the **non-physical morbidities** improves **patient experience** following **Major Trauma**

# The Hidden Effects of Trauma

Sally Sheppard[1], Lucy Smith[2], Zoe Dowling[3]
[1&3]Senior Physiotherapist, [2] Senior Occupational Therapist
University Hospital Southampton Foundation Trust

## Problem

- Since the introduction of the Major Trauma Networks in 2010, NHS England has found that 20% more patients are now surviving severe trauma[1]
- The National Clinical Audit of Specialist Rehabilitation (2019) found that following major trauma
  - 87% of patients had complex physical needs
  - 70% had complex cognitive or emotional needs
  - 51% had psychosocial needs[2]

- The National Institute for Health and Care Excellence (2009) recognises that psychological morbidities are frequently unrecognised and, if identified, may not be appropriately assessed or managed, despite early recognition and management shortening the recovery period[3]

## Rationale

- Audit of NICE Guideline: Rehabilitation following critical illness demonstrated poor compliance to core standard 2:

*Before discharging patients to home or community care: A functional assessment of non physical problems of anxiety, depression, PTSD, behavioural and cognitive problems and psychosocial problems*

- Case reviews showed how the impact of non-physical morbidities negatively impacted on rehabilitation engagement, discharge planning and length of stay
- Major trauma patient experience survey 2017 – patients wanted rehabilitation to focus on the non-physical morbidities especially psychosocial issues

## Aim

To improve the patient's rehabilitation experience following major trauma

Key Drivers

✓ To improve the therapists' ability to identify and report the non-physical morbidities
✓ To improve the patients' perception of how effective the therapists are in managing their non-physical morbidities
✓ To identify the prevalence of non-physical morbidities and collate data to support a business case for psychological input

## Methods

The Physiotherapists and Occupational Therapists, on the Major Trauma unit, worked with the Psychologists and Psychiatrists to design and deliver a Quality Improvement Project. A driver diagram was implemented to breakdown the overall improvement goal into its underpinning drivers and created change ideas
These ideas were implemented through two PDSA cycles over a 5 month period Feb – June 2019

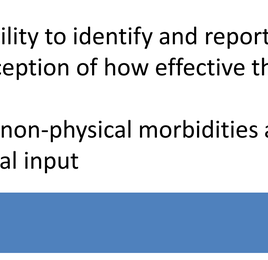
## Plan, Do, Study, Act, Model

✓ Sharing of vision – article published in Frontline
✓ Validation of communication tools
✓ Submitted a business case for a dedicated psychology service for major trauma patients
✓ Governance highlighted a need to manage risk – implemented risk action plan; escalation & follow up plans
✓ Instigated pathways for each non-physical morbidity

Weekly 1hr clinical supervision with psychologists

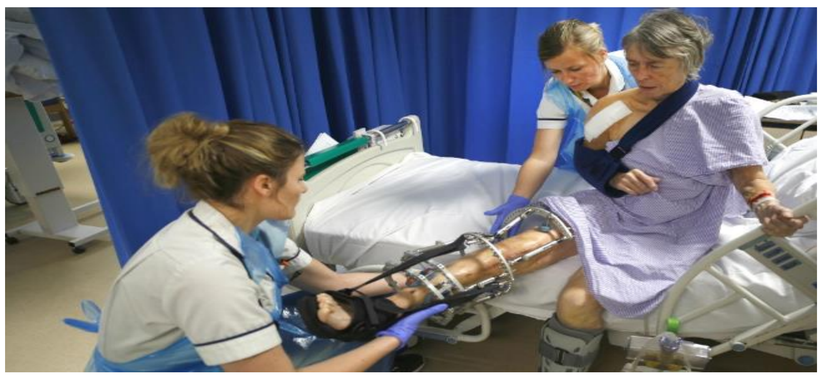
PDSA Cycle 1: Introduction of major trauma specific initial interview

PDSA Cycle 2: Developed Communication tools for each non-physical morbidity
Training on treatment techniques & management strategies
Resource file – including treatment adjuncts/ apps and website resources




Data collection
1) Patient experience survey – captured feedback on patients' rehabilitation experience, whether they had experienced any non-physical morbidity, and if so, how effective the therapy team were in identifying and managing these
2) The non-physical morbidities identified by the therapists
3) The no. of patients that would have been appropriate for referral to inpatient psychology

❖ 26% of patients would be appropriate for inpatient psychology
❖ Communication tools statistically improved the therapists ability to identify non-physical morbidities correctly
❖ 31% increase in patients rating their rehabilitation experience as 'very good' from PDSA Cycle 1 to 2
❖ The average no. of management strategies implemented from PDSA cycle 1 to 2 increased from 1.3 to 4.12



## Results

Project Population: 56 patients with a predicted Injury Severity Score > 15; Age Range: 17-91 years; Mean Age: 48; Male: Female 41:15; No. of suicide attempts: 4

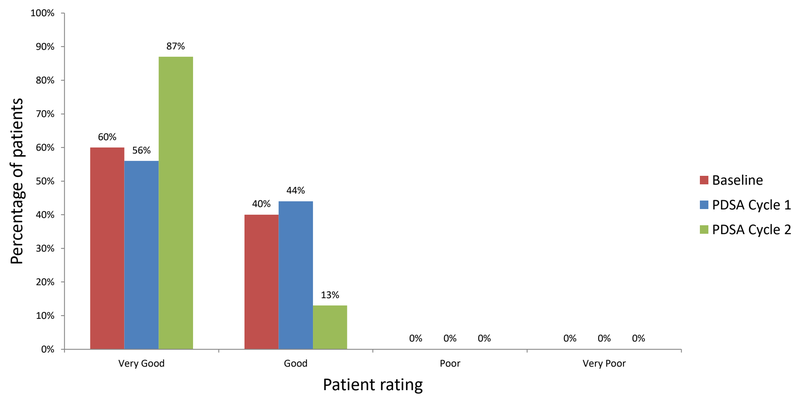
Point prevalence of non-physical morbidities:

70% of patients reported low mood
66% of patients reported anxiety
64% of patients felt concerned about returning to their normal role/ work
62% of patients felt anxious about coping at home
34% of patients felt isolated or experienced flashbacks/ nightmares
26% of patients reported orientation issues
9% of patients were distressed about their body image

Of the 54 patients discussed with the clinical psychologists 26% (n=14) of cases would have been appropriate for referral to inpatient psychology

Rehabilitation experience

A Bar Chart to show the baseline, PDSA Cycle 1 and 2 data on how patients rated their therapy experience




## Conclusions

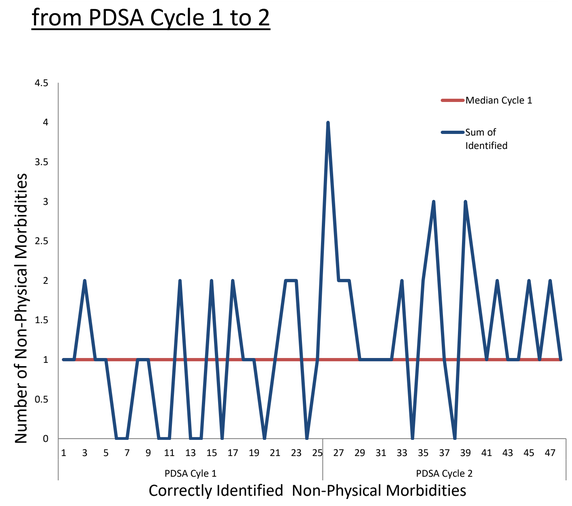
✓ Incorporating rehabilitation of the non-physical morbidities alongside the physical injuries improved the patients' rehabilitation experience
✓ The communication tools facilitated open discussion and enhanced the patient/ therapist relationship. Issues were identified earlier and reduced barriers to discharge
✓ The training, resource file and the clinical supervision with the psychologists, improved the patients' overall perception of how effective the therapists were in managing their non-physical morbidities
✓ Further study is required for the management of low mood
✓ Further study is required into the validation of the communication tools and the use of outcome measures or predictor tools early in the patients' rehabilitation journey

## Implications

➢ Education on major trauma rehabilitation should have a holistic approach focusing on the non-physical morbidities as well as the physical morbidities to maximise patients' recovery
➢ The high prevalence of non-physical morbidities suggests that a dedicated psychology service would be beneficial in the early stages of recovery
➢ The Department of Health advises on a stepped programme of psychosocial and mental health care that begins at the scenes of injury.[4] This project supports that Physiotherapists and Occupational Therapists can work within their scope of practice for Level 1 and 2 patients

## Extra Tables & Figures

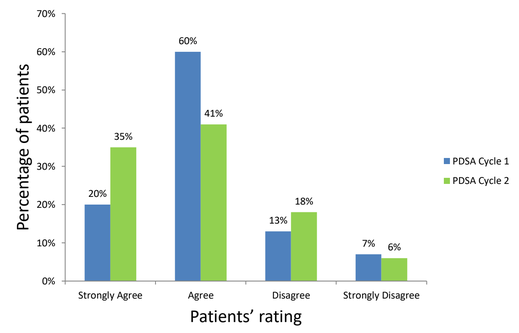
A Run Chart to demonstrate the statistical improvement in the therapists' ability to correctly identify the patients' non-physical morbidities from PDSA Cycle 1 to 2




A Table to shows the results for PSDA Cycle 1 and 2 on the patients' perception of how effective the therapy team were in helping them manage their non-physical morbidity

| | | Strongly Agree | Agree | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| Anxiety | Cycle 1 | 25% | 62% | 13% | 0% |
| | Cycle 2 | 47% | 53% | 0% | 0% |
| Low Mood | Cycle 1 | 20% | 60% | 13% | 0% |
| | Cycle 2 | 35% | 41% | 18% | 6% |
| Body Image | Cycle 1 | 0% | 100% | 0% | 0% |
| | Cycle 2 | 50% | 0% | 50% | 0% |
| Concerns re: Return to Role | Cycle 1 | 21% | 72% | 7% | 0% |
| | Cycle 2 | 46% | 46% | 8% | 0% |
| Orientation | Cycle 1 | 50% | 50% | 0% | 0% |
| | Cycle2 | 50% | 33% | 17% | 0% |
| Flashbacks | Cycle 1 | 25% | 25% | 50% | 0% |
| | Cycle 2 | 61% | 0% | 31% | 8% |
| Concerns re: Coping at home | Cycle 1 | 35% | 35% | 24% | 6% |
| | Cycle 2 | 50% | 33% | 17% | 0% |

A Bar Chart to show the patients' perception of how effective the therapy team were at managing feelings of low mood following PDSA cycle 1 & 2




PTSD Communication Tool

Are you experiencing flash backs or nightmares?
Are you feeling anxious or 'on edge'? (Scale 0-10)
Are you having any negative thoughts about yourself? And if so can you tell me about them?
Can you give me any examples of when you have avoided talking or thinking about the accident?

## References

1. NHS England (2013). Independent review of Major Trauma Networks reveals increase in patient survival rates [online]. Available at: https://www.england.nhs.uk/2013/06/incr-pati-survi-rts/

2. Turner-Stoke, L. (2019). Specialist Rehabilitation following major Injury NCASRI). National Clinical Audit Final Audit Report April 2019. [pdf] NHS London North West University Healthcare. Available at https://www.kcl.ac.uk/cicelysaunders/about/rehabilitation/nhs-audit-report-v9-rgb.pdf pp 70 and 128.

3. NICE (2008). National Institute for Health and Clinical Excellence SCOPE. [online] NICE. Available at https://www.nice.org.uk/guidance/cg83/documents/critical-illness-rehabilitation-final-scope2

4. Department of Health (2011). NHS Emergency Planning Guidance: Planning for the management of burn injured patients in the event of a major incident: interim strategic national guidance [online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/215643/dh_125842.pdf

sally.sheppard@uhs.nhs.uk
02381204452

NHS
University Hospital Southampton