ASSESSMENT AND TREATMENT OF POST TRAUMATIC BENIGN PAROXYSMAL POSITIONAL VERTIGO (BPPV) OF A POLYTRAUMA PATIENT IN A REHABILITATION CENTRE WITH ACCESS TO AN EXTENDED HOLISTIC INTERDISCIPLINARY TEAM:

A CASE STUDY.

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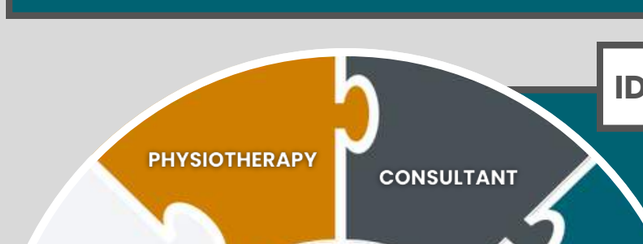
BACKGROUND

Assessment and treatment of post traumatic BPPV requires an extensive subjective assessment and the gold standard Dix Hallpike test. Due to trauma and limited mobility these lines of assessment and treatment can be distressing and complex to manage. With access to the inhouse interdisciplinary team (IDT) at a specialist residential rehabilitation centre, a more holistic biopsychosocial model to assessment and treatment could be implemented. This case study aims to demonstrate the difference this extended IDT approach made to an individual's recovery.

METHOD

A 56-year-old female with polytrauma after a road traffic accident arrived for specialist rehabilitation seven months after the incident. She participated in 4 months of patient-centred intensive rehabilitation with a holistic biopsychosocial approach.



GOALS

Her key goals were to improve her independence, mobility and wellbeing.

BARRIER

Frequent dizzy spells when rolling over in bed and when standing to a frame were hindering her progress.

THE DIZZINESS HANDICAP INVENTORY

"How did your symptoms start?"

"Because of your problem, are you depressed?"

"Does your problem restrict your participation in social activities?"

"Was there a significant incident or illness that brought on your symptoms?"

"Because of your problem, are you afraid that people might think you are intoxicated?"

"Because of your problem, do you have difficulty getting into or out of bed?"

Standardised assessment questions triggered post-traumatic stress disorder (PTSD). Not all questions were appropriate to use for this client.

ADAPTIVE APPROACH TO DIX-HALLPIKE MANOEUVRE

The Dix-Hallpike manoeuvre was indicated by symptoms, however it was difficult to achieve this due the patient having the following difficulties:

- Assistance of 3 therapists to complete manoeuvre.
- Multiple fracture sites.
- Limited mobility.
- Vacuum Assisted Closure on left lower limb.
- Hearing loss.
- Psychological trauma.
- Intramedullary nail right femur.

IDT APPROACH

Physiotherapy:
- Assessment split into smaller, more manageable sections during the week due to PTSD.
- Larger team to complete Dix-Hallpike test.

Consultant:
- Referral to in house vestibular Physiotherapy.
- Good communication between consultant and Physiotherapist in weekly handovers.
- Frequent reviews to consider medication and non-required.

Psychology:
- Key for supporting subjective assessment and PTSD triggers.
- Supporting fear and anxiety around Dix Hall Pike test.

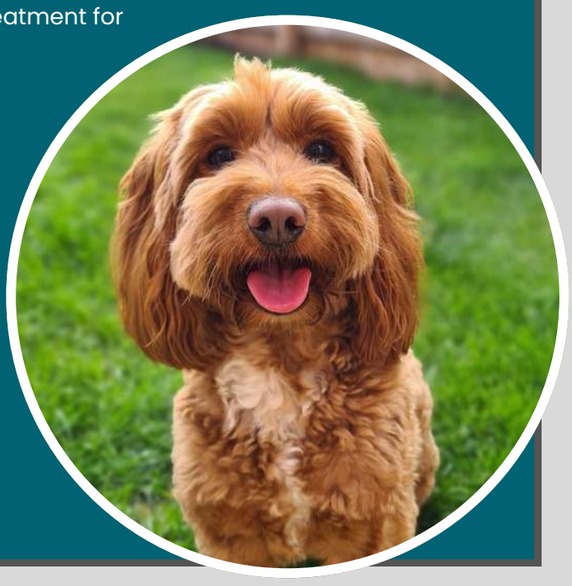
Acupuncture:
- Acupressure and traditional acupuncture for anxiety after assessment and treatment.
- Acupuncture for muscular tension in the neck and shoulders to help with secondary symptoms.

Solution Focused Hypnotherapy:
- Sessions after assessment and treatment for insomnia, pain and anxiety.

Acuhypno
- For relaxation and sleep and to lower her heart rate and adrenaline response.

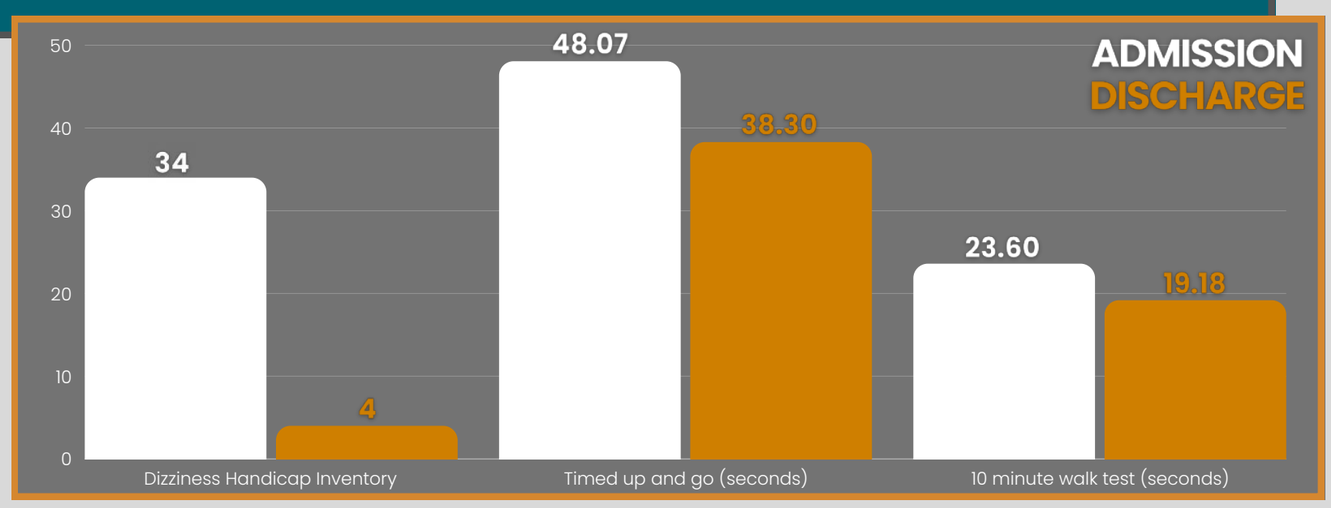
Peer Support Group:
- Enabled the client to talk about her experiences and open up with others and manage PTSD.

Therapy dog:
- Reduced client's anxiety after assessment and treatment.



FINDINGS

Formal outcome measures such dizziness handicap inventory, timed up and go and 10-minute walk test have all shown improvements. Dizziness handicap inventory results improved from **34** to **4**. Timed up and go results improved from **48.07** seconds to **38.30** seconds. 10-minutewalk test improved from **23.60** seconds to **19.18** seconds. Alongside the formal measures progression with mobility has been noted, such as progressing from using the ReTurn transfer aide to transfer to mobilising with supervision of one and two walking sticks for short distances.



CONCLUSION

Access to vestibular rehabilitation is not currently standard practice after a road traffic accident. Standardized subjective and objective assessments can be difficult to implement with people with polytrauma. This case study demonstrates what can be achieved with vestibular rehabilitation post trauma with a holistic IDT approach in an inpatient rehabilitation centre. Further research into the integration of less traditional professional roles into vestibular rehabilitation and the integration of vestibular rehabilitation into standard practice would potentially be beneficial in the future.