

A RETROSPECTIVE ANALYSIS OF REFERRALS FOR NEUROPSYCHOLOGY INPUT IN A HYPER-ACUTE NEUROREHABILITATION SERVICE



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INTRODUCTION

Acquired brain injury (ABI) survivors may present with a variety of physical, cognitive, emotional, and behavioural rehabilitation needs (BPS, 2005). Providing acute treatment and rehabilitation at the earliest stage is expected to significantly increase recovery and clinical outcomes (Thompson et al, 2013).

A hyper-acute neurorehabilitation service at Salford Care Organisation is provided on ward C2. Individuals with a range of acute neurological conditions can be referred to an interdisciplinary team comprising of occupational therapists, physiotherapists, nurses, neuropsychologists, speech therapists, dieticians, and specialist rehabilitation medics.

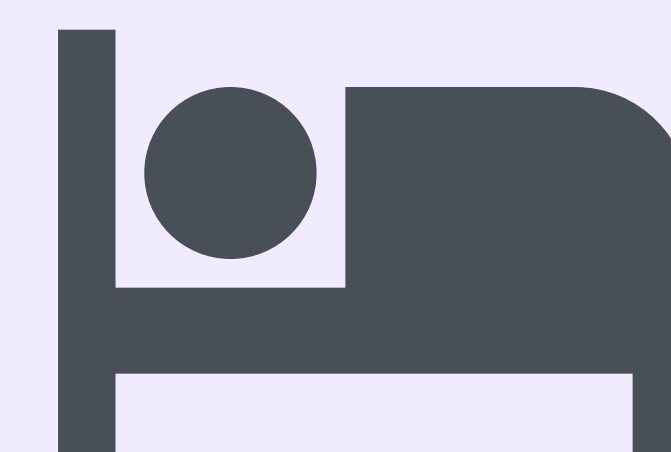
Neuropsychological evaluations and interventions often provide specialist information relating to the individual's cognition and mood and inform rehabilitation needs and future planning (Poveda, 2017). Such specialist services provide direct and indirect support to patients, their families, and the wider team. Neuropsychological support is dependent upon referrals from the interdisciplinary team, however, there is little or no information about the content or pattern of these referrals in hyper-acute neurorehabilitation settings.

OBJECTIVE

Therefore, this study aims to evaluate neuropsychology referral within the acute neurorehabilitation service over the past 5 years. This data can be used to contribute to the literature regarding the need for clinical neuropsychology provision within hyper-acute neurorehabilitation settings.

METHODOLOGY

SETTING



20 BED

HYPER-ACUTE INPATIENT
NEUROREHABILITATION WARD

SAMPLE



472

ANONYMISED REFERRALS
BETWEEN APRIL 2017 TO APRIL
2022 EXTRACTED FROM
ELECTRONIC PATIENT RECORDS

DATA ANALYSIS



EXCEL

DEMOGRAPHIC AND REFERRAL
DATA WAS ANALYSED
RETROSPECTIVELY USING
MICROSOFT EXCEL

RESULTS

TIME



1.5 DAYS

MEAN TIME FROM REFERRAL
TO TRIAGE

GENDER



52%

OF PATIENTS REFERRED
WERE MALE

ETHNICITY



87%

PATIENTS IDENTIFIED AS
WHITE BRITISH

Fig. 1 REFERRERS TO NEUROPSYCHOLOGY

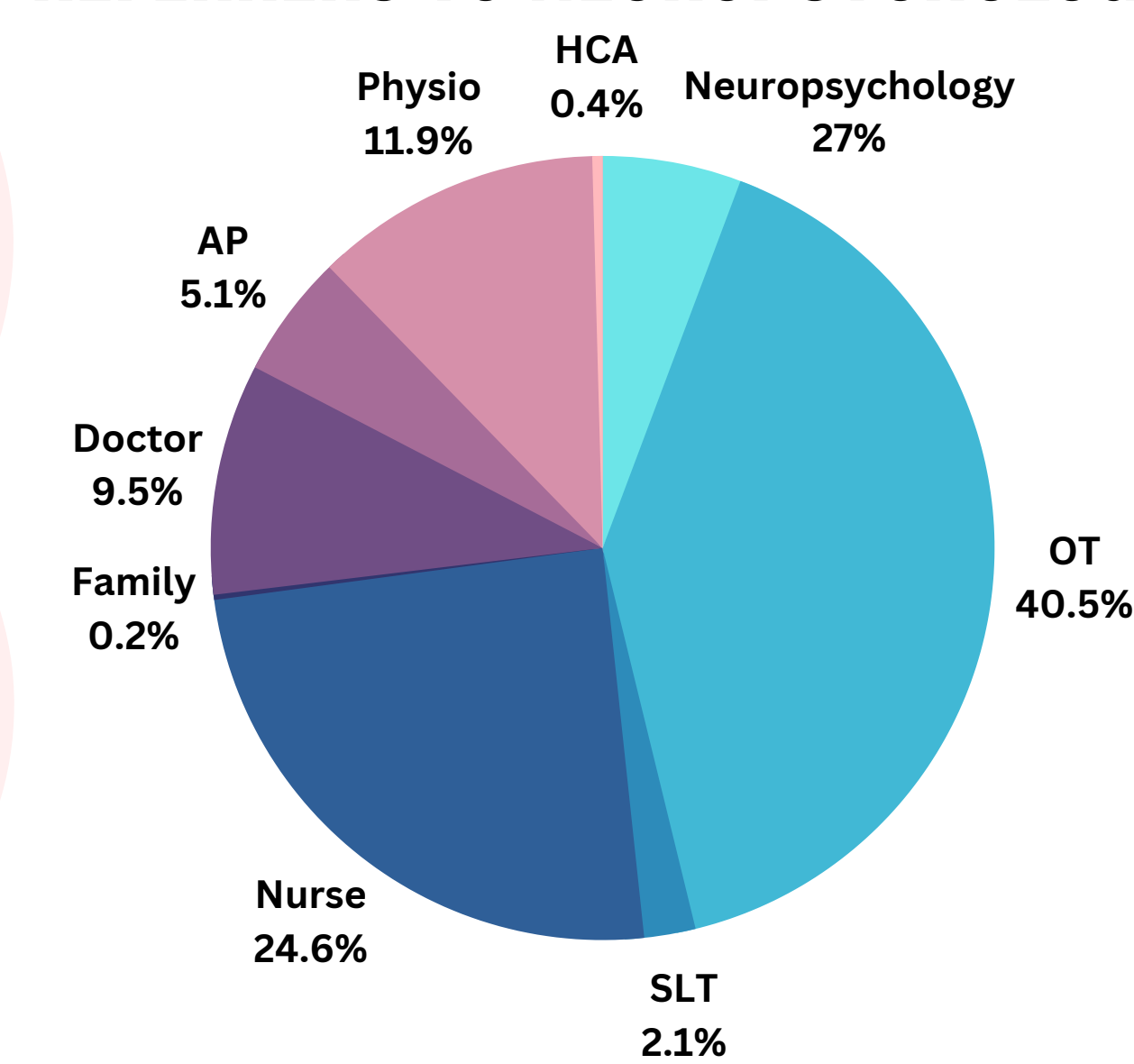


Fig. 2 TYPES OF REFERRAL

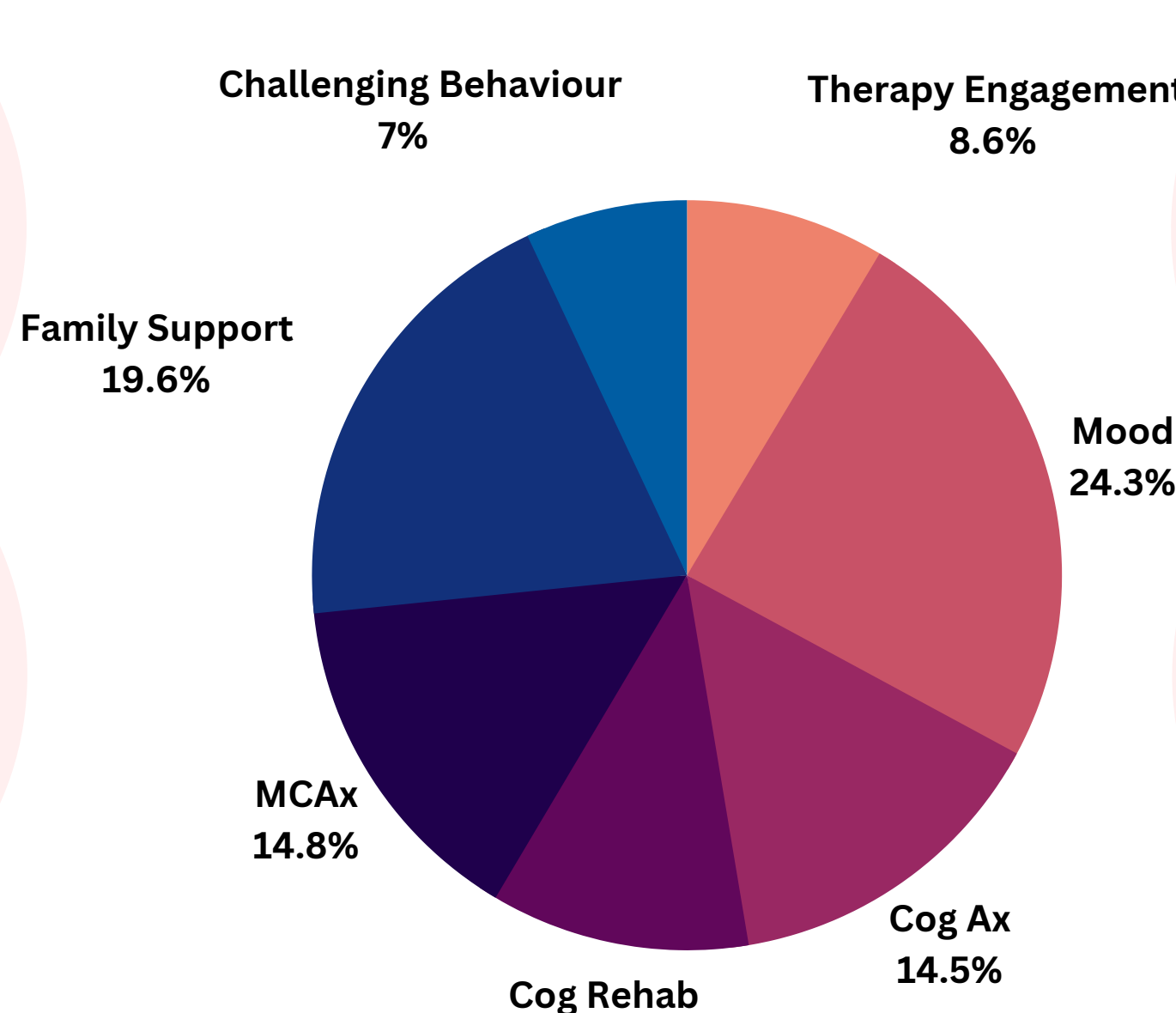
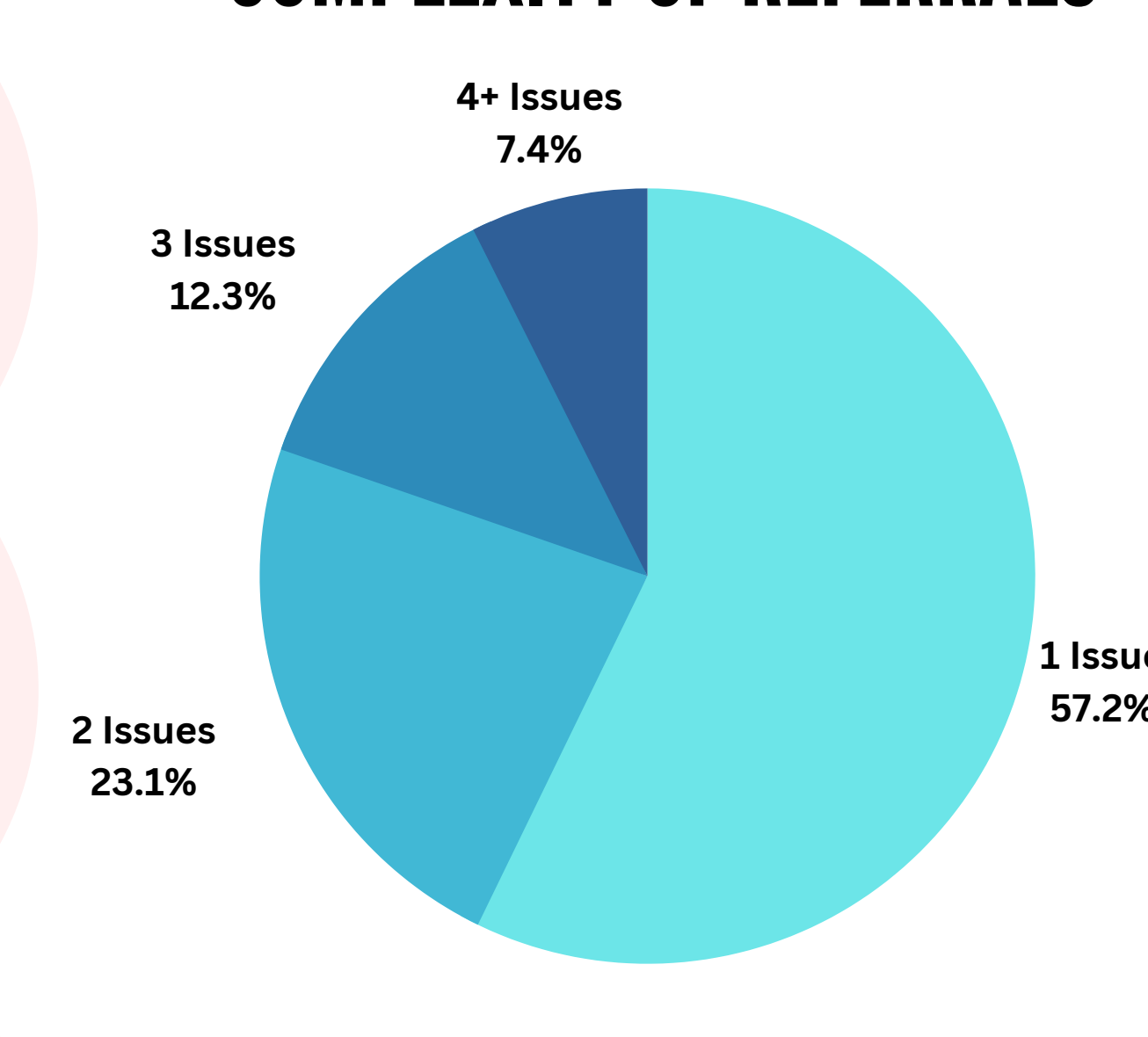


Fig. 3 COMPLEXITY OF REFERRALS



Analysis of demographic data showed patients referred were predominantly White British (87%) and Male (52%). The most common referral sources were occupational therapists (40.5%), nurses (24.6%), and physiotherapists (11.9%) (see Fig. 1). Mood support (24.3%), family support (19.6%), mental capacity assessment (14.8%), and cognitive assessment (14.5%) were the most common type of referral for neuropsychology input (see Fig. 2). 57.2% of referrals were for a single issue, dropping to 23.1% for two issues and 12.3% for 3 issues. Only 7.4% of referrals were requiring 4 or more neuropsychology interventions (see Fig. 3). The majority of referrals were defined as routine at time of referral (83%) and mean time from referral to triage was 1.5 days.

DISCUSSION

Demographic data analysis further highlights the barriers ethnic minorities face in accessing neuropsychological interventions (Dunning et al., 2021; Mirza et al., 2021), but percentage of males referred for input reflects national UK ABI statistics (NHS Digital & Headway, 2022). Interestingly, whilst research shows ABIs are more prevalent for those 85 years and older (NHS Digital & Headway, 2022), the present study highlighted a broader range of ages referred for neuropsychology in a hyper-acute neurorehabilitation setting. This may reflect unidentified need in this older age category, or that fewer individuals of this age are admitted to this type of rehabilitation setting.

Referrals for inpatient neuropsychology support in a hyper-acute neurorehabilitation service suggested that the neuropsychological needs of patients are being identified by the multidisciplinary team, and response time to triage is timely, but further research into what support is being provided as a result of referral is required.

Types of referrals to neuropsychology are varied, highlighting the multifactorial nature of the role, and mirroring previous research exploring perceptions of clinical neuropsychology roles (Gillespie et al., 2017). The percentage of mood and capacity referrals also reflects a recent report on the hidden effects of brain injury (Headway, 2022). The high proportion of referrals from Occupational Therapists may be indicative of the frequency of joint working and shared roles within hyper-acute neurorehabilitation settings, contrasting research in an inpatient stroke setting, where there was a more even distribution of referral sources amongst the multidisciplinary team (Khan-Bourne, et al., 2017). Patients being referred for multiple issues (42.8%) is representative of the complexity of patients referred to neuropsychology in this setting, as well as highlighting the skillset of neuropsychology clinicians (Gillespie et al., 2017).

Future research should look to establish referral patterns in similar services, and identify what interventions are delivered in frequently under-resourced settings.

REFERENCES

- British Psychological Society (2005). Clinical Neuropsychology and Rehabilitation Services for Adults with Acquired Brain Injury. Leicester: BPS.
- Dunning, G., Teager, A. (2020). An evaluation of ethnicity in a neuropsychology outpatient department [Conference presentation]. Division of Clinical Psychology (DCP) Annual Conference 2021, United Kingdom.
- Gillespie, C., Alford, M., Young, L & Gillanders, S. (2017) Staff perceptions of clinical neuropsychological work, and self-rated psychological skills and confidence, in the acute neuroscience setting. In The Neuropsychologist (Issue 3, pp. 40-45). British Psychological Society, Division of Neuropsychology.
- Headway. (2022). Brain injury: A hidden disability. <https://www.headway.org.uk/media/10044/brain-injury-a-hidden-disability-see-the-hidden-me-survey-report.pdf>.
- Khan-Bourne, N., Bancroft, V., Doyle, C & Morris, R. (2017) Neuropsychological rehabilitation in stroke care: A review of referrals and interventions offered across two stroke units. In The Neuropsychologist (Issue 3, pp. 33-39). British Psychological Society, Division of Neuropsychology.
- Mirza, N., Vikram, A., Osmani, F., Kumar, N., Orakzai, S., Sharma, S., & Ehsan, S. (2021, July 1-2). Barriers and facilitators British ethnic minorities face when accessing neuropsychological services: a systematic review and qualitative analysis [Conference presentation]. British Psychological Society Conference 2021, United Kingdom.
- National Institute for Health and Care Excellence (NICE): (2018). Brain tumours (primary) and brain metastases in over 16s quality standard: National Institute for Health and Care Excellence publications.
- NHS Health and Social Care Information Centre (NHS Digital) & Headway - the brain injury association, (2022)
- Poveda, B. (2017). Conference Review (NR-SIG-WFNR) A Clinical Perspective. BPS: The Neuropsychology, 3 (20), 33-39.
- Selten, J. P., Termorshuizen, F., van Sonsbeek, M., Bogers, J., & Schmand, B. (2021). Migration and dementia: a meta-analysis of epidemiological studies in Europe. Psychological medicine, 51(11), 1838-1845.
- Thompson, J. N., Majumdar, J., Sheldrick, R., & Morcos, F. (2013). Acute neurorehabilitation versus treatment as usual. British Journal of Neurosurgery, 27(1), 24-29.

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