

# “Its Not Only The Injury But Also the Kind of Head.”

## Factors Influencing Outcome After Moderate-Severe TBI

Jennie Ponsford, AO<sup>1,2,3</sup> ; Marina Downing<sup>1,2</sup> ; Meagan Carty<sup>1,3</sup> ; John Olver, AM<sup>3</sup> ; Michael Ponsford<sup>3</sup> ; Rose Acher<sup>3</sup>

<sup>1</sup> Monash Epworth Rehabilitation Research Centre, Epworth Healthcare, Melbourne, Australia

<sup>2</sup> Turner Institute for Brain and Mental Health, School of Psychological Sciences, Monash University, Melbourne Australia

<sup>3</sup> Epworth HealthCare, Melbourne Australia

### Introduction

- Traumatic brain injury (TBI) has significant physical, cognitive, behavioural, and emotional consequences.
- There is a substantial amount of variance in outcome that remains unaccounted for.

### Aim

- Examine pre-injury, injury-related, and post-injury factors associated with functional outcome, represented by return to previous activities, at one year after moderate-severe TBI.
- Variables examined as predictors included sex, age at injury, years of education, being from a CALD background, marital status at injury, pre-injury psychiatric disorder, pre-injury alcohol issues, days in PTA, and presence of spinal, chest, abdomen, limb, or facial injuries at time of TBI.

### Participants

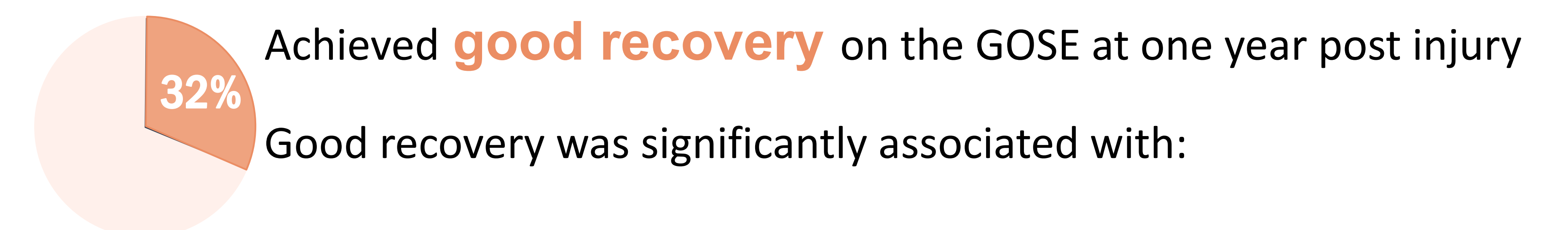
- 1028 individuals (72% male) with mod-severe TBI were followed up 1 year post-injury:

	Mean (SD)		Frequency (%)
Age	36-years (18.39)	Single	64.90%
Education	11.30 years (2.48)	Culturally and linguistically diverse background (CALD)	15.60%
PTA	26.98 days (30.68)	Premorbid psychiatric issues	19.50%
GCS	8.29 (4.35)	Premorbid alcohol issues	17.60%

### Measures

- Functional outcome was measured using the Glasgow Outcome Scale – Extended (GOSE).
- Binary logistic regressions were conducted to examine factors associated with good recovery on the GOSE at one year post-injury.

### Results



- Higher education
- Less days in PTA
- No issues with social isolation post injury
- Not being from a CALD background
- Higher GCS score
- Lower depression post injury
- No premorbid psychiatric issues
- Absence of spinal, abdomen, and limb injuries
- Lower anxiety post injury

### Conclusion

- Functional outcomes are determined as much as pre-injury background as they are by injury-related factors. Consideration of such factors may inform prognostication and rehabilitation.



Epworth HealthCare



MONASH University

