

SELF-REPORTED MOTOR AND NON-MOTOR SYMPTOMS IN PEOPLE WITH FUNCTIONAL GAIT DISORDER: A CROSS-SECTIONAL SURVEY

AUTHORS & AFFILIATIONS

Sara Issak (a,b), Professor Gavin Williams (a,b), Professor Richard A Kanaan (c), Dr Natalie A Fini (a), Dr Glenn Nielsen (d)

a) Department of Physiotherapy, Melbourne School of Health Sciences, The University of Melbourne, Victoria, Australia; b) Department of Physiotherapy, Epworth Healthcare, Melbourne, Australia; c) Department of Psychiatry, University of Melbourne, Austin Health, Victoria, Australia; d) Neurosciences Research Centre, Molecular & Clinical Sciences Research Institute, St George's, University of London, London, UK.

Contact: sissak@student.unimelb.edu.au



INTRODUCTION

Functional gait disorder (FGD) is a common presentation of functional neurological disorders. Altered gait is the defining feature, however they are also associated with a range of motor and non-motor symptoms, such as pain or fatigue. The prevalence, severity, and impact of these symptoms in people with FGD remains unknown.

OBJECTIVE

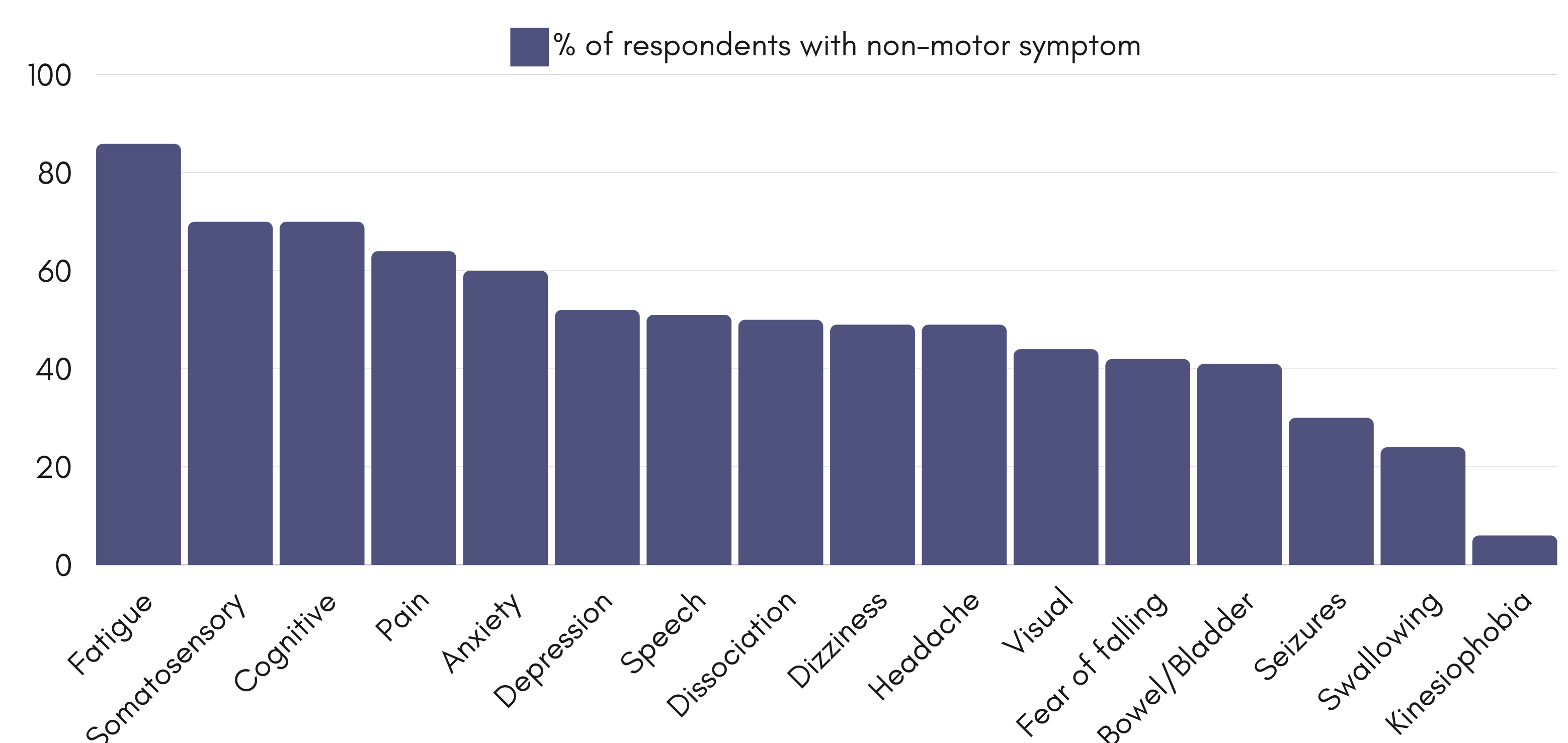
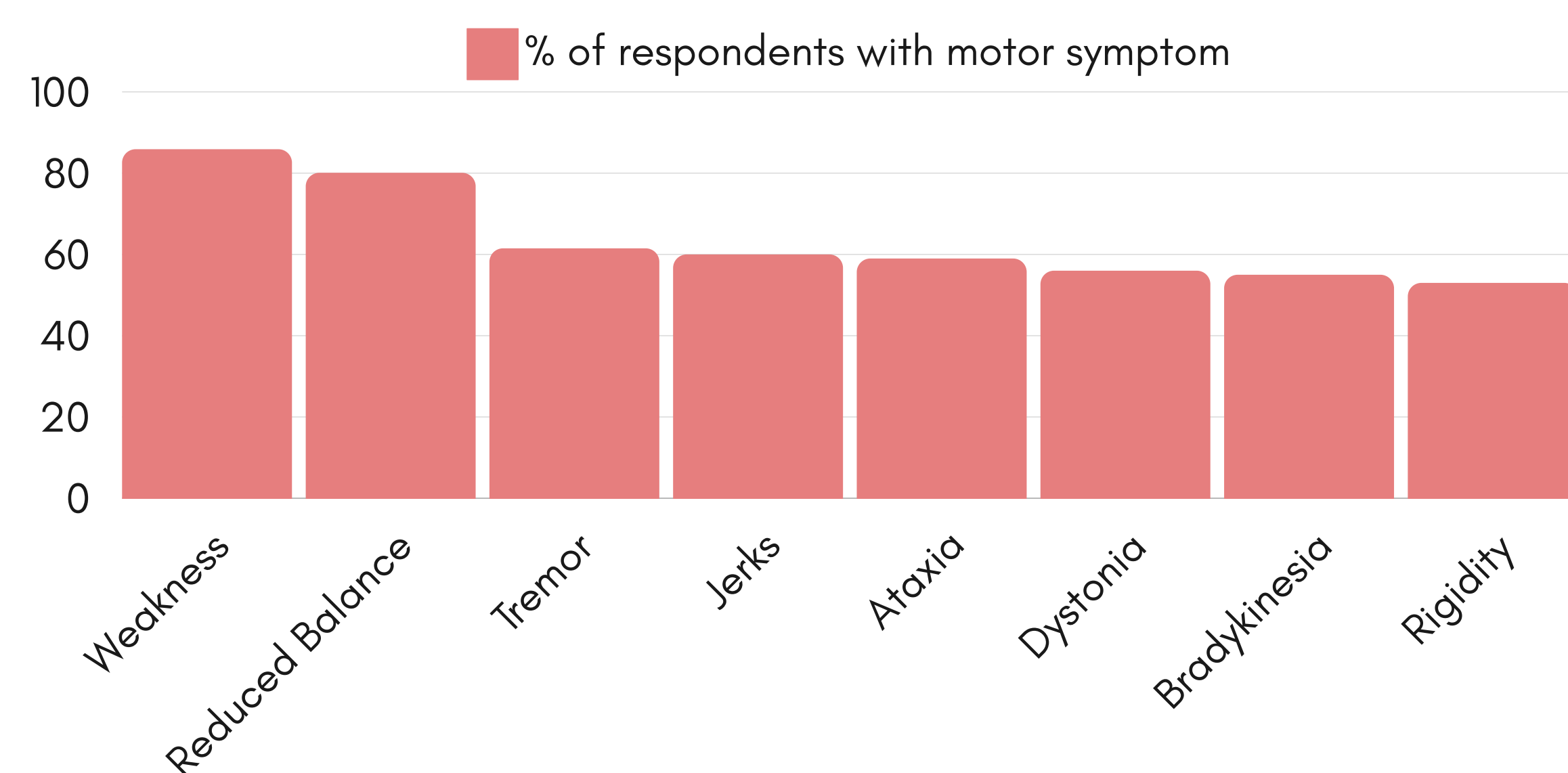
The aim of this study was to explore the prevalence and severity of self-reported motor and non-motor symptoms, in people with FGD, and the impact on ambulation, work and social participation, and quality of life.

METHODOLOGY

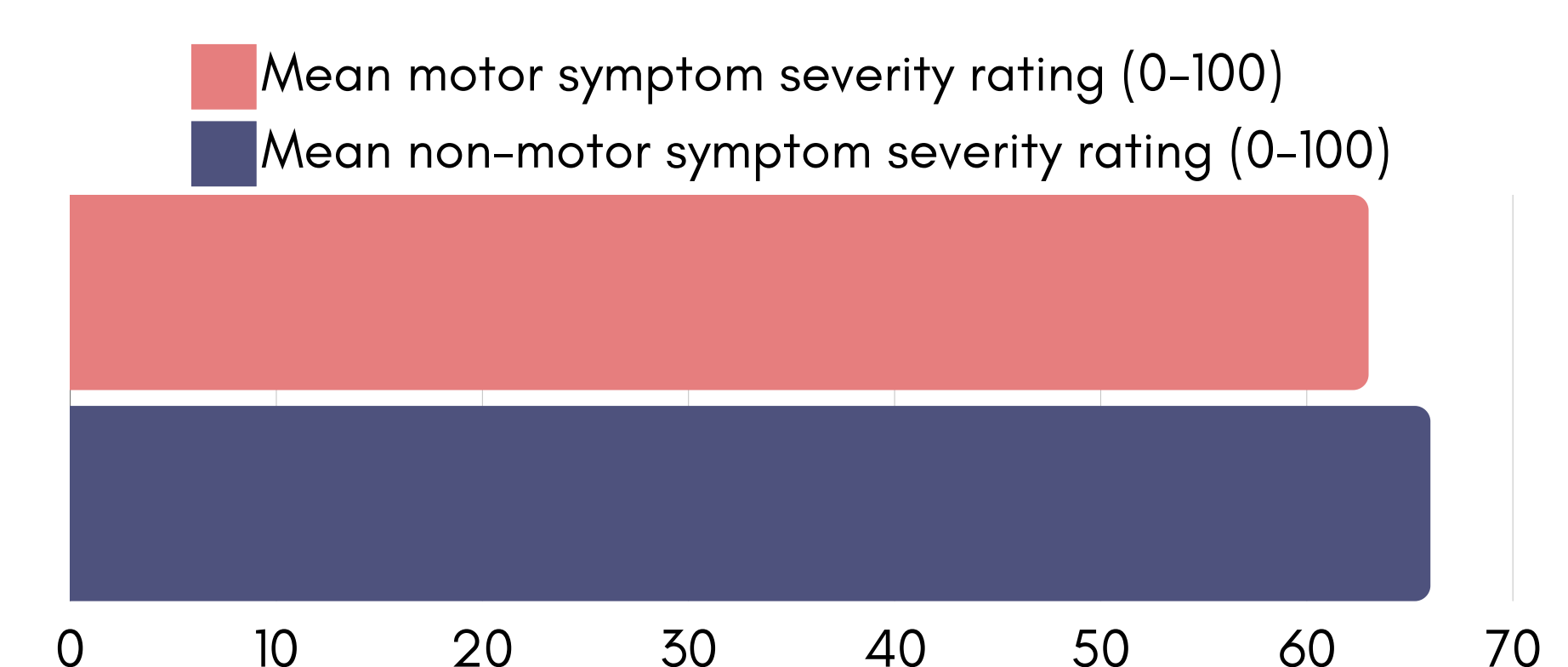
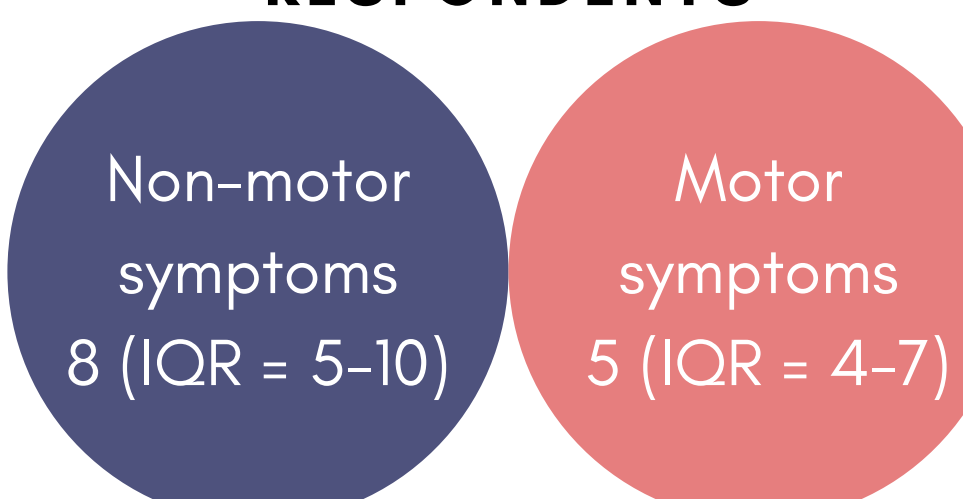
Participants completed an online survey relating to demographic information, symptoms and outcome measures. Respondents were asked to endorse which symptoms they had from a list of motor and non-motor symptoms. Participants were excluded if they were non-ambulant. Univariate (t-tests and chi-square tests), and multivariate analysis (stepwise linear regression and binary logistic regression), were used for the analyses.

RESULTS AND ANALYSIS

Cohort	n = 156	Diagnosis by Neurologist	n = 145 (93%)
Age (mean)	43.5 years (SD 13.6)	Previous treatment	n = 107 (68%)
Sex	90% Female	Uses a mobility aid	n = 70 (45%)
Symptom duration (mean)	5.5 years (SD 7.2)	Ambulates independently	n = 68 (44%)



MEDIAN NUMBER OF SYMPTOMS ENDORSED BY RESPONDENTS



AMBULATION

Exploring the association between *Functional Ambulation Category* scores and symptom prevalence indicated that **fear of falling** and **functional seizures** had the greatest association with requiring assistance to ambulate (Binary logistic regression, $X^2(11, n = 128) = 40.68, p < 0.001$).

PARTICIPATION

Analysing the association between *Work and Social Adjustment Scale* scores and symptom prevalence indicated that **functional seizures, muscle rigidity, depression, fear of falling, pain** and **speech symptoms** were associated with reduced work and social participation (Stepwise regression, Adjusted $R^2 = 0.39, F(6,120) = 14.31, p < 0.001$).

PHYSICAL QOL

Exploring the association between *SF36 (Physical summary score)* and symptom prevalence showed that lower physical QOL was associated with **pain, bradykinesia, fatigue** and **dystonia** (Stepwise regression, Adjusted $R^2 = 0.32, F(4,122) = 15.92, p < 0.001$).

MENTAL QOL

Analysing the association between *SF36 (Mental summary score)* and symptom prevalence showed that lower mental QOL was associated with **depression, anxiety** and **functional seizures** (Stepwise regression, Adjusted $R^2 = 0.46, F(3,123) = 36.89, p < 0.001$).

CONCLUSION

Motor and non-motor symptoms were prevalent and rated as severe amongst respondents with FGD. Motor and non-motor symptoms were associated with dependent ambulation, reduced work and social participation, and reduced physical and mental quality of life. This study provides researchers and clinicians with real-world data about a comprehensive range of symptoms in people with FGD, that may inform assessment, patient education, treatment, and future interventional studies. These findings highlight the multidimensional nature of FGD, supporting interdisciplinary treatment, and the need to consider and assess these symptoms, in people with FGD undergoing rehabilitation.