Measuring mood and wellbeing in people living at risk of genetic frontotemporal dementia

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Background

Frontotemporal dementia (FTD) has a genetic cause in ~20% of cases, knowledge of which can affect a person's mental health. Commonly, the General Anxiety Disorder 7 (GAD-7) and Patient Health Questionnaire 9 (PHQ-9) are used to assess anxiety and depression, however there is evidence that the Warwick-Edinburgh Mental Health Wellbeing Scale (WEMWBS) could be a more sensitive and comprehensive alternative to assess mental health.

Aims

This study explores how genetic status and awareness of that status affect mental health in people at risk of FTD and evaluates which of these questionnaire best captures these differences.

Methods

Using data from the Genetic Frontotemporal Dementia Initiative (GENFI), depression, anxiety and general wellbeing scores were analysed in symptomatic carriers of pathogenic FTD mutations and an at-risk cohort (presymptomatic mutation carriers and non-carriers) using the GAD-7, PHQ-9 and WEMWBS test.

The at-risk cohort was further classified as either aware or unaware of their genetic status. Data (n = 705) was analysed using descriptive statistics and Wilcoxon tests to assess group differences and the effects of both genetic status and awareness on mental health test scores.

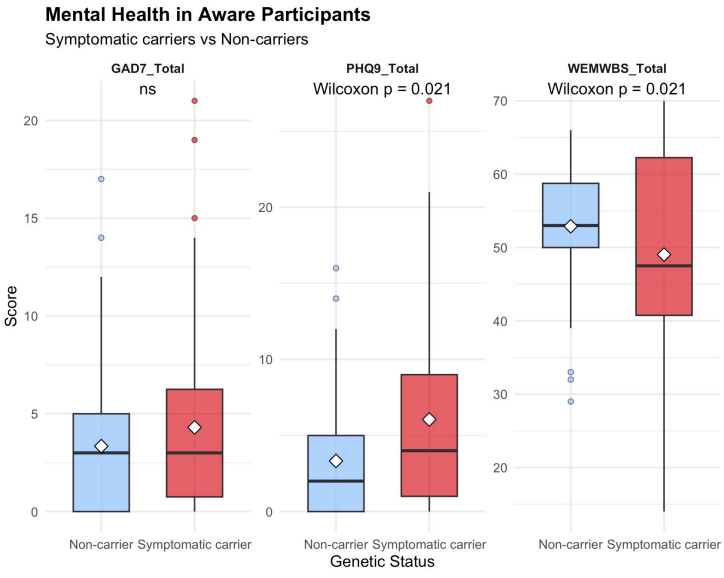

Figure 1: Box plot showing the significant difference in depression and wellbeing scores between FTD non-carriers and symptomatic carriers with no significant difference in GAD-7 Scores

Results

- Symptomatic carriers showed significantly lower wellbeing (–3.9 WEMWBS points, p = 0.021) and higher depression scores (+2.7 PHQ-9 points, p = 0.021) than non-carriers (Figure 1).
- In the at-risk cohort, non-carriers who were aware of their genetic status reported higher wellbeing (+2.8 WEMWBS points, p = 0.026) compared with those unaware, with no significant differences in anxiety or depression scores (Figure 2).
- Knowledge of genetic status did not significantly change any mental health scores in presymptomatic mutation carriers.

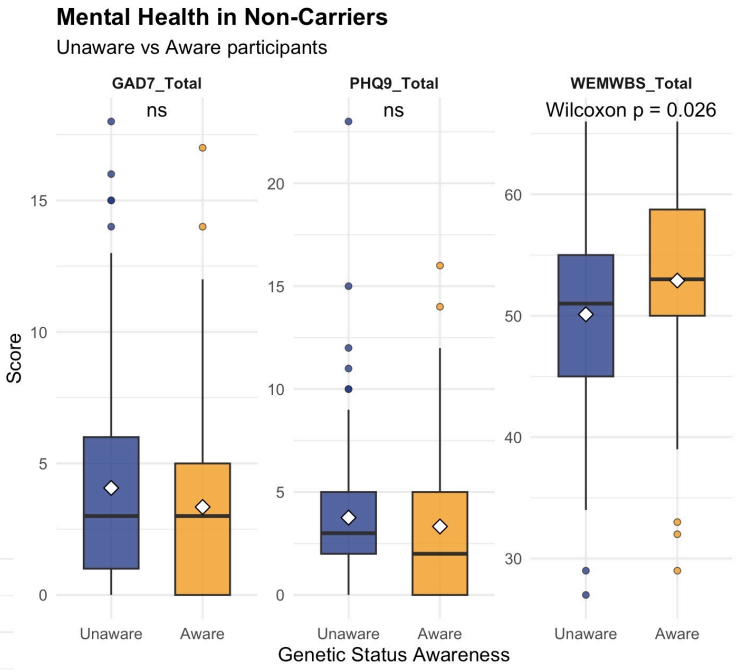

Figure 2: Box plot showing a significant difference in WEMWBS test scores between aware and unaware patients in the at risk, non-carrier cohort. There is no significant difference in the GAD-7 or PHQ-9 scores.

Conclusions

WEMWBS could be a more sensitive tool for detecting subtle changes in mental health than GAD-7 or PHQ-9, particularly in cohorts at risk of genetic conditions and should be used in clinical assessments of mental health changes.

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