

## Autistic traits and schizotypy in presymptomatic familial frontotemporal dementia

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### State of the art

Psychiatric symptoms are not uncommon in frontotemporal dementia (FTD), including hallucinations and delusions. The aim of this study was to investigate the presence of autistic traits and schizotypy in individuals at-risk of FTD.

### Methodology

56 participants (non-carrier controls N=15; 41 mutation carriers (MCs) (*C9orf72*=20, GRN=8, MAPT=13) from the GENetic FTD Initiative (GENFI) at UCL completed self-report versions of the Broad Autism Phenotype Questionnaire (BAPQ) and short Oxford-Liverpool Inventory of Feelings and Experiences (sOLIFE). Bootstrapped linear regression models investigated differences between genetic groups.

### Results

GRN and MAPT MCs scored significantly higher (GRN  $p=0.02$ , mean [M]= 2.87, standard deviation [SD]=0.62; MAPT  $p=0.02$ , M=2.91, SD=0.64) than *C9orf72* MCs (M=2.43, SD=0.55) on BAPQ. On the BAPQ 'aloof' subscale GRN MCs scored significantly higher ( $p=0.003$ , M= 3.13, SD=0.72) compared to *C9orf72* MCs (M=2.49, SD=0.82). On the rigid subscale MAPT MCs (M= 3.28, SD=0.83) scored significantly higher than controls ( $p=0.05$ , M=2.83, SD=0.83) and *C9orf72* MCs ( $p=0.002$ , M=2.50, SD=0.57).

GRN and MAPT MCs also scored significantly higher on sOLIFE, compared to *C9orf72* MCs (M=7.45, SD=4.74) (GRN  $p=0.009$ , M= 11.63, SD=4.66; MAPT  $p=0.05$ , M=12.55, SD=8.45). GRN MCs (M=5.63, SD=2.97) scored significantly higher on the cognitive disorganisation subscale compared to non-carriers ( $p=0.023$ , M=3.40, SD=2.90) and *C9orf72* MCs ( $p<0.001$ , M=2.00, SD=2.27). MAPT MCs (M=4.45, SD=3.42) also scored significantly higher than *C9orf72* MCs on this subscale ( $p=0.021$ ).

### Conclusion

In this pilot study we demonstrate differing scores on the BAPQ and sOLIFE in presymptomatic gene carriers depending on gene group.

### Conflicts of interest

N/A