

Project 5: Evaluating Interventions for Improving Social Cognition. (Supervisor: Prof. Donohoe, NUI Galway)

The overarching question that this project addresses is "Does computerised social cognition training and online social support improve social cognition and social functioning in youth with major mental health disorders".

In schizophrenia and other serious mental health disorders, deficits in cognition are strongly associated with and predictive of lowered social and occupational functions (Green 2016). Current pharmacological treatments do not result in appreciable cognitive benefits, and a number of recent reviews have in particular highlighted the need for improved treatment of social cognition in schizophrenia (Green et al, 2016; Tan et al, 2006; Kurtz et al 2016). Behaviourally based Cognitive Remediation (CR) interventions are widely shown to be effective in treating cognitive deficits, but are not generally available as part of standard clinical care, reflecting the low availability of psychological treatment delivery more broadly (Clarke, 2015). In response, several groups have developed e-health platforms designed to either improve cognition, social cognition, social function, and social interaction.

Following on from a successful HRB sponsored trial of CR focusing on working memory (Donohoe et al, 2017), this project will evaluate novel 'online' interventions **specifically targeting social cognition and social function** in young people (aged 16-25 years, ~n=120) with early stage psychosis from the HSE CAMHS service. With associated partners Alvarez & Franck, a series of studies will compare the functional benefits of (1) 12 weeks of online CR + **social cognition training** versus a CR only training program given with the same level of intensity & duration, (2) characterise the effects on social cognition and social participation from participation in a **moderated online social therapy (MOST)** program (Alvarez et al 2013) and (3) examine whether cognitive and social cognition training effects are further enhanced by online social therapy group participation. The primary outcome variables will be changes in (a) measures of social cognition selected based on results from the Social Cognition Psychometric Evaluation (SCOPE) study, and (b) measures of social and occupational function and social participation. Secondary outcome variables will include changes in (c) clinical symptoms severity and (d) general cognitive function.

## References

Donohoe G, Dillon R, Hargreaves A, Mothersill O, Castorina M, Furey E, Fagan AJ, Meaney JF, Fitzmaurice B, Hallahan B, McDonald C, Wykes T, Corvin A, Robertson IH. Effectiveness of a low support, remotely accessible, cognitive remediation training programme for chronic psychosis: cognitive, functional and cortical outcomes from a single blind randomised controlled trial. *Psychol Med*. 2018 Apr;48(5):751-764. PMID: 28933314.

Alvarez-Jimenez M, Gleeson JF, Rice S, Gonzalez-Blanch C, Bendall S. Online peer-to-peer support in youth mental health: seizing the opportunity. *Epidemiol Psychiatr Sci*. 2016 Apr;25(2):123-6. doi: 10.1017/S2045796015001092. Epub 2016 Feb 16. PubMed PMID: 26880239.

Green MF. Impact of cognitive and social cognitive impairment on functional

outcomes in patients with schizophrenia. J Clin Psychiatry. 2016 Feb;77 Suppl 2:8-11. doi: 10.4088/JCP.14074su1c.02. Review. PubMed PMID: 26919052.