Cognition in Mental Health

The prevalence of cognitive impairments in schizophrenia is well documented (Fioravanti et al 2012) and the awareness of this in other mental health conditions is growing (Ruocco 2005, Castaneda et al 2008). Within schizophrenia, cognitive impairment is seen as a core feature, with impairments evident in many of the domains. Bowie & Harvey (2006) highlight that most people with schizophrenia will have some cognitive impairments (including impairment in attention, working memory, verbal fluency, verbal learning and memory, and executive functioning) but like many of the other symptoms, the severity and frequency vary from person to person. Cognitive impairment correlates with poor functional performance (Green 1996). Executive functions tasks are the best indicators of occupational functioning in schizophrenia (McGurk et al 2003). Executive functioning refers to a number of cognitive processes resulting in purposeful, goal directed behaviours, including cognitive processes such as planning, problem solving and decision making.

Even within first episode psychosis there is evidence of cognitive impairment. McCleery et al (2014) found that the profile of cognitive impairment in first episode psychosis is similar to that observed in chronic schizophrenia, although social cognition and working memory may be more intact in the early phases of the illness.

Cognitive impairments in other mental health conditions is also beginning to be more widely recognised. A review of cognitive impairments in depressive and anxiety disorders in young people by Castaneda et al (2008) found that cognitive impairments is common in major depression, with impairments in executive functioning being most evident. Within anxiety disorders, the profile depended on the sub type, with obsessive compulsive disorder being associated with deficits in executive functioning and visual memory.

Effective treatment for cognitive impairments in schizophrenia is limited. Cognitive Remediation Therapy (CRT) is recognised as a behavioural intervention which aims to treat cognitive impairment. As cited by Wykes et al (2011), Cognitive Remediation Therapy for schizophrenia was defined at the Cognitive Remediation Experts Workshop (Florence, Italy, 2010), as “a behavioural training based intervention that aims to improve cognitive processes (attention, memory, executive function, social cognition or metacognition) with the goal of durability and generalisation”.

A meta-analysis completed in 2007 demonstrates that CRT does have a positive impact on psychosocial functioning including greater improvements in obtaining and working competitive jobs and the quality of and satisfaction with interpersonal relationships (McGurk et al 2007). Moreover, in recent meta-analysis by Wykes et al (2011), the findings indicate that CRT does produce improvements in cognition and functioning, and CRT is more effective when delivered alongside other psychiatric rehabilitation. Therefore, literature indicates that CRT is effective in improving cognition (Wykes et al., 2002; McGurk 2007 et al.) and that these improvements are durable and generalised (Wykes et al., 2011). This has led to a B grade
recommendation for CRT within the Scottish Intercollegiate Guidelines Network (SIGN) for the management of schizophrenia (SIGN, 2013).

CRT can also be used as precursor to other psychological therapies. Drake et al (2014) explored the use of CRT preceding Cognitive Behavioural Therapy (CBT) and found that CRT prior to CBT results in fewer session of CBT, making this a more efficient way of delivering CBT.

Fife Employment Access Trust (FEAT) is a leading mental health and employability charity in Fife. FEAT noticed first-hand the impact that cognitive impairment was having on individuals who were trying to access and maintain meaningful work roles. This lead to a collaboration between FEAT and NHS Fife mental health directorate to look at planning a project that would meet this need.

The Employ Your Mind Project

Employ Your Mind (EYM) is an innovative project, funded by the Big Lottery. The project is delivered in partnership between FEAT and NHS Fife Mental Health. This projects aims to benefit adults who have severe and enduring mental health conditions and who have multiple barriers to return to or enter the work place.

EYM is a 24-week modular programme, run in 4 phases, of six-week blocks. Phase one session are delivered once a week for 45 minutes with one Learning Coach (FEAT staff) and an NHS Fife Mental Health Professional and are focused on building trust with the students. The remainder of the project is delivered three times a week for 2 hours with two Learning Coaches and are group based sessions. These phases are in a community setting and consists of a pre-employability work to increase confidence and self-esteem, employment and vocational guidance, work experience and volunteering within local organisations. (Figure 1)

A big part of the success of EYM comes from the Learning Coaches and their approach towards students. The facilitation method used by the Learning Coaches is mainly dialogic learning, rather than teacher presentations. They establish existing knowledge, build on it and keep it relevant to the individual. The Learning Coaches always try to be aware of the situation of the group, the dynamic as well as the wellbeing of each member of the group.

During the project the student are presented with an option for completing and receiving a Scottish Vocational Qualification (access level three). The SVQ certificate is divided in to two modules – Personal Development completed during phase one and two, and Work Experience module completed in phase three and four, containing a 20-hour work experience placement of their choosing.

CRT is embedded within the project. During phase two, three and four students are working on completing CRT exercises for 30 to 45 minutes each session. Students are presented with a variety of different CRT exercises, such as pen and paper, computerised games, practical puzzles or group exercises. During phase one students explore their learning styles, based on
those results, students are presented with the best CRT exercises for them. Students also complete an Audio Recorded Cognitive Screen\(^1\) (ARCS) (Schofield et al 2010) towards the beginning of the project and again at the end. Students receive individual feedback on their results, as well as a discussion based on how CRT can link to personal goals. The idea behind it is to be able to show to each students the benefits of CRT in everyday activities and encourage metacognition. The CRT exercises help students increase functional capacity. These strategies focus on developing core skills used in daily activities, including attention span, concentration, memory, and the ability to plan and organise, all to support clients as they pursue educational or employment opportunities.

**Innovations**

Since the inception of EYM, we have worked to expand the scope and delivery of CRT within our service, looking for innovative methods of delivery as well as seeking to develop links with international partners and to expand the remit of services that we offer.

We have worked with other agencies as far afield as Melbourne Australia where we have replicated the EYM course. Our Occupational Therapist, Inga Davidson, was also invited to present at the Cognitive Remediation and Psychiatry conference held in New York last year and had the opportunity to visit and learn from the team at Columbia University, headed by Professor Alice Medalia, an esteemed professional and pioneer within the field of CRT. Closer to home, we have continued to develop close ties with Kings College London, which has included Dr Clare Reeder appearing as guest note speaker at our highly successful CRT conference, Thought Matters. The conference was designed to present information on the understanding and treatment of the cognitive deficits that commonly occur in many psychiatric conditions. (Figure 2) (Figure3)

Following on from the conference we have begun to offer training in CRT to other agencies looking to set up and develop their own CRT service. The training provided consists of an intensive two day course covering everything from the rationale behind CRT to the practicalities of setting up and delivering a CRT service. There has been significant interest in our courses and we hope these provide a further way of linking with other services across the country, making a direct contribution to expanding the provision of CRT available to clients.

As an organisation, we specialise in employability services and have always looked to combine CRT with the practical goal of improving employability outcomes. There is a growing evidence to indicate that, even with the best evidence based employability services, clients with cognitive deficits find it harder to gain and retain paid employment. In light of this we are leading the way in Scotland by developing a CRT provision within the Fife Individual Placement and Support (IPS) service. IPS is an evidence based form of supported employment which has been shown to have significant success rates in helping clients with severe and enduring mental health problems to gain competitive paid employment. We will be the first service within

---

\(^1\) Developed by the Hunter New England Neuropsychiatry Service, NSW, Australia
Scotland to provide CRT integrated within an IPS service to allow our clients to have the best possible outcomes in terms of achieving their employability goals.

We continue to explore different methods of delivery for CRT, often encouraging group participation as well as one to one input. We are constantly reviewing the methods used to ensure they are as client centred and engaging as possible while at the same time allowing the opportunity for success and strategy development. Key to this is always the ability to link back the cognitive skills and strategies developed to real life situations. Having CRT embedded within our EYM course has provided a unique and important method for achieving this and is something that we would hope to be able to replicate successfully in our delivery of CRT within the Fife IPS service and any future projects. In addition we are continuing to expand the client base that the EYM course is available to by looking at a greater emphasis on self-management rather than insisting on NHS input for clients.

CRT is now a widely recognised therapy which looks to be gaining continued recognition. FEAT are proud to be at the forefront of the future development and delivery of CRT services within Scotland.

If you are interested in any of the services that we offer, including training in CRT, please contact either Inga Davidson at Fife Employment Access Trust www.feat.org.uk

References


Cognitive remediation therapy: Enhancing employment outcomes in vocational rehabilitation


