

Implementing Social Cognition and Interaction Training (SCIT)

with a cohort in an inpatient
Rehabilitation Unit

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What is Social Cognition?

Social cognition refers to cognitive processes that are involved in perceiving and understanding social situations, particularly the behaviours and intentions of other people; it has been defined as the ability that “allows people to interpret behaviour and to make sense of themselves, of others, and of the social world around them” (Kirsch 2006).

Why focus on Social Cognition?

- Deficits in Social Cognition in individuals with Schizophrenia-spectrum disorders have been shown to be closely related to poor social and community functioning (Penn et al 2006).
- Several key social cognitive domains appear to interact in hindering effective social functioning in Schizophrenia, namely:

Why focus on Social Cognition?

- 1) The need for closure (intolerance of ambiguity) is associated with the tendency to truncate searches for explanatory evidence and jump to hasty conclusions in social situations.
- 2) Externalising and personalising attributional biases in explaining negative events, tending to blame factors outside of the self and blame others, as opposed to attributing blame to situational factors.
- 3) ToM deficits have been widely demonstrated in Schizophrenia and are linked to social functioning.
- 4) Abnormalities in identifying facially expressed emotions have been recognised in Schizophrenia and can exacerbate the above constellation of difficulties as they apply to interpersonal functioning.

What are the 'domains' of Social Cognition?

Leading social cognition experts at an NIMH-sponsored consensus-building workshop concluded that there are five domains of social cognition considered most relevant to individuals diagnosed with Schizophrenia and the study of deficits frequently found in severe and enduring mental health difficulties (Green et al. 2008)

Domains of Social Cognition

- Emotion Processing
- Social Perception
- Social Knowledge
- Theory of Mind (ToM)
- Attributional Bias

Emotion Processing

- Emotion processing refers to the ability to identify, facilitate, understand and manage emotions (Mayer, Salovey, & Caruso, 2002).
- It subsumes both the identification of emotions (alternately called emotion perception or affect recognition), as well as how information about those emotions is used (which includes Emotional Intelligence) (Horan et al., 2008).

Social Perception

Social perception refers to the ability to make inferences about social situations, including awareness of the roles, rules, and goals that typically characterise social situations and guide social interactions (Corrigan & Green, 1993), and the ability to discern relevant person-related features related to, for example, status, mood state, relationship, or veracity (Horan et al., 2008). Social perception is not solely based on emotion recognition—it is multimodal and involves the processing of nonverbal, paraverbal, and verbal cues that occur in a social context.

Social Knowledge

Social knowledge is closely related to social perception (Choi, Kim, Lee, & Green, 2009). It refers to having an awareness of which cues typically occur in specific social situations (i.e. social perception) and an understanding of the appropriate response (Kern & Horan, 2010).

Social knowledge can be understood as a social schema to which the cues gathered through social perception are applied (Corrigan, Wallace, & Green, 1992). It allows people to understand the unsaid roles, rules, goals and appropriate behaviours of any given social situation (Corrigan & Green, 1993).

Theory of Mind

Theory of mind (ToM) refers to the ability to infer the intentions, beliefs, and opinions of self and others. Impaired ToM often precludes cognitive flexibility to take another person's perspective and reduce one's own self-perspective. ToM, also called mentalising, applies to understanding other people's false beliefs, hints, sarcasm, humour, deception, metaphor, and irony (Kern & Horan, 2010).

Attributional bias

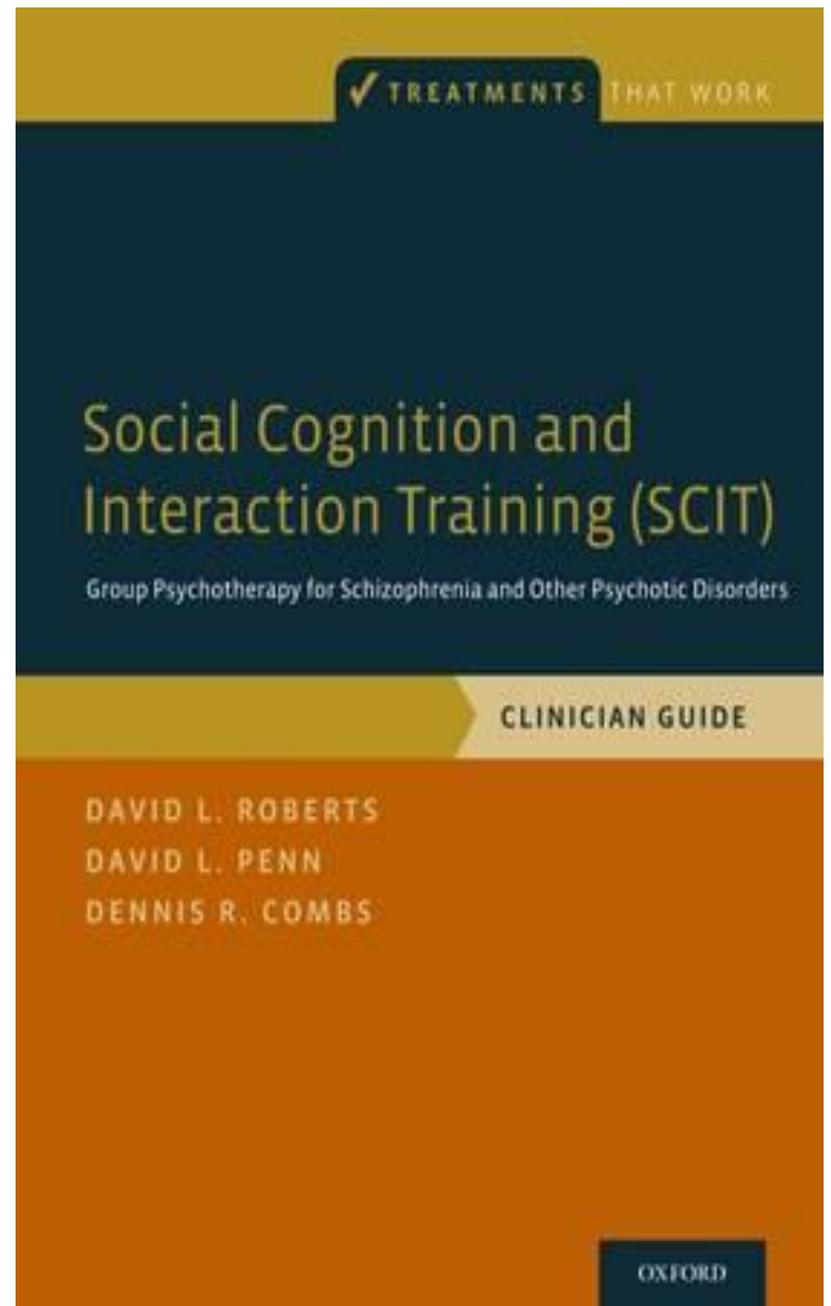
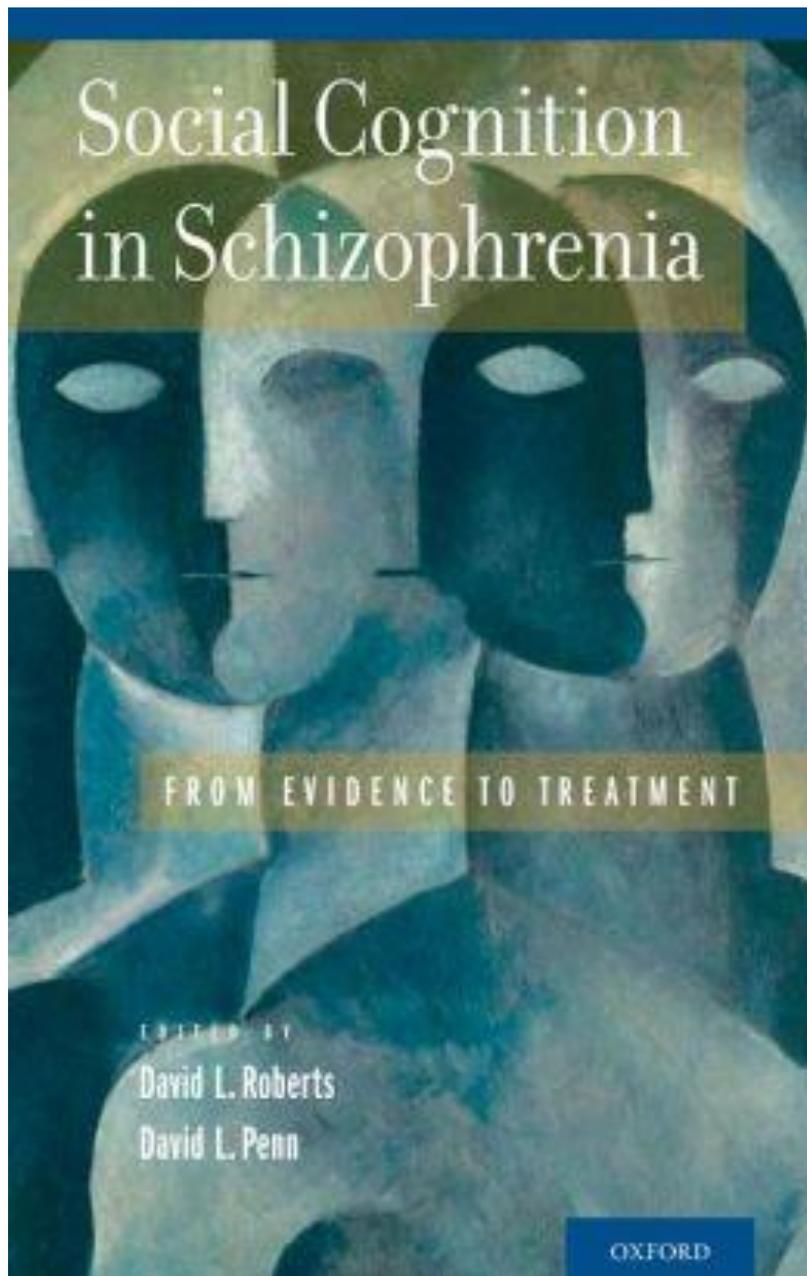
Attributional Bias refers to negative interpretations of other people's behaviours, and the tendency to assign malevolent causality to ambiguous interactions. Deficits of this type are thought to be especially prevalent in persons with paranoia, wherein there is often a personalizing bias such that negative events are attributed to others rather than to situations (Bentall, Corcoran, Howard, Blackwood, & Kinderman, 2001). Similarly, a hostile attributional bias refers to the tendency to attribute hostile intentions to others' actions (Combs, Penn, Wicher, & Waldheter, 2007).

Types of Social Cognitive interventions

Contemporary social cognitive interventions are often classified as

- targeted,
- comprehensive, or
- broad-based

SCIT is classified as 'comprehensive'



What does SCIT involve?

- Group-based intervention (closed)
- 20 sessions plus up to 4 for repetition
- Delivered weekly by two/three facilitators
- Over 3 phases (emotion training; figuring out social situations & applying strategies learned to participants' own lives)
- Homework tasks completed with a Practice Partner (a nurse from the unit)

Participant selection

SCIT is appropriate for individuals who are at least 18 years of age, experiencing a psychotic condition, and who have interpersonal difficulties as a result of their condition.

SCIT is particularly appropriate for individuals with symptoms of suspiciousness and paranoia.

Phase 1: Emotion Training

The **GOALS** of Phase I are:

1. Begin building group alliance and developing comfort with self-disclosure.
2. Introduce SCIT and the concept of social cognition.
3. Share personal experiences of emotion and link them to social contexts.
4. Define basic emotions.
5. Flexibly distinguish between different facial expressions of emotion.
6. Conceptualise 'suspiciousness' as an emotion.

Excerpt from in-session exercise

How would you feel in their shoes?

Read each of the stories below. Imagine yourself experiencing what the character experiences. Make the facial expression that you would make if you were the character. Then circle the emotion-word that best fits your facial expression.

1) Carrie just heard that her pet dog was hit by a car.

Sad Surprised Ashamed Angry Excited Worried

2) Alice loves sitting on the blue couch in her room. While she was away, her husband threw away the blue couch.

Sad Afraid Surprised Angry Disgusted Happy

3) Shandy needs to get to work by 9. It is 8:55 and she is still waiting at the bus stop.

Jealous Surprised Worried Happy Excited Afraid

Excerpt from in-session exercise



He/She is probably feeling _____
(circle one). How sure are you?: ____%

Happy

Sad

Afraid

Angry

Surprised

No Emotion

Video material

- *What happened in this video?*
- *What was each person thinking and feeling?*
- *How was Nicky feeling when Cindy walked into the room? (A: upset, angry, frustrated)*
- *Why was Nicky feeling this way? (A: Because she just spilled her soda.)*
- *How did Nicky act toward Cindy? (A: Rude).*
- *How did this make Cindy feel? (A: sad, hurt, angry).*

Phase II: Figuring out social situations

The **GOALS** of Phase II are:

1. Learn to recognise “jumping to conclusions.”
2. Learn the difference between *external*, *internal*, and *situational* attributions.
3. Learn to generate causal attributions from these three perspectives.
4. Appreciate the difficulty of interpreting ambiguous situations.
5. Recognise the difference between social facts and guesses.
6. Practice gathering evidence instead of jumping to conclusions.
7. Learn to judge the likelihood that a conclusion is right.

Video material

- *Did somebody jump to a conclusion in this video?*
- *Were they right about what they thought?*
- *Did they think they were definitely right?*
- *Did they jump to a negative conclusion about another person or a positive conclusion?*
- *What was the result of their jumping to a conclusion? How did it make them feel? How did it make the other person feel?*
- *From watching these videos do we know for sure if the people's conclusions were right? (i.e. In vignette 5, did the man make a "fat comment"?)*

Separating facts from guesses



Excerpt from in-session exercise

Facts

Tasia said she would go to Betty's party.

She didn't go.

Guesses

"Tasia doesn't like me"

"Tasia is a mean, inconsiderate person."

"Tasia got caught in traffic."

Feelings

Sad

Angry

Fine

Prototypical attributions

My Fault Mary *tends to blame the self*

Blaming Bill *tends to blame others*

Easy Eddie *tends to blame chance*

Prototypes

My Fault Mary, Easy Eddie and Blaming Bill were designed to provide participants with a quick and easy heuristic for generating impressions about others' mental states (to enhance ToM) and for flexibly juxtaposing multiple impressions (to address attributional bias and jumping to conclusions). The technique is based on the *generating alternatives* technique that is used in existing interventions but is modified to make the process more rapid and rote, so that it may be overlearned and to make the experience feel easy rather than difficult, so that its products are judged by the participant to be valid rather than invalid.

Excerpt from in-session exercise

Mike is riding home on the bus eating an ice cream cone. The bus is crowded and Mike is standing near the back. When the bus stops at a red light, Mike loses his balance, and the ice cream falls off of his cone and splats on the floor.

- Put yourself in Mike's shoes. Whose fault is it?
- Identify how Blaming Bill, Easy Eddie, and My-Fault Mary would interpret the situation.

Phase III: Applying strategies learned to participants' own lives

Participants are encouraged to bring examples of problematic interpersonal situations and events from their own lives. The group then brainstorm solutions and develop strategies for “checking out” problems with other people based on SCIT skills.

The 'checking it out' process

1. Briefly tell the group about a social event from your week that caused negative feelings or misunderstanding.
2. On the board, make a “facts” column, a “guesses” column, a “feelings” column, and an “action” column.
3. Summarise the key facts of the situation in the facts column.
4. List three or four guesses about what caused the problem, and underline the guess that *you* believe most.
5. List the emotions that each guess may lead to, and underline the main emotions that *you* are feeling about the situation.
6. Get feedback from the group about what they think is the best guess based on the facts.
7. Brainstorm with the group to identify several actions that you could take to make the negative feelings lessen.
8. Weigh the pros and cons of the different actions, and decide which one is best.
9. If appropriate, role-play the action with one of the facilitators.

Our first cohort

- *N=9*
- *Male=8; Female=1*
- *N=3 participants were from BME communities*
- *Age range 22yrs-66 yrs (median age 37 yrs)*
- *Length of illness 2yrs-26yrs (median 11 yrs)*
- *Time in an acute bed before transfer to rehab 3m-16m (median 7 months)*
- *Length of admission to Rehab Unit 2m-27m (median 15 months)*
- *Diagnoses: Schizophrenia (n=5), Psychotic Depression (n=2), Psychosis (n=2)*

Our first cohort

Ran on a weekly basis, comprising of a total of **21 sessions**

Sessions were facilitated by:

Dr Allison Blackett, Consultant Clinical Psychologist,

Dr Dan Martin, Higher Trainee in Psychiatry and

Dr Danielle Graham, Principal Clinical Psychologist

It was delivered in a pleasant group room on the hospital site but away from the ward setting

Sessions lasted 60 minutes, including a 15 minute coffee break half way through

Goals of treatment

The goal of these types of treatments is not to teach individuals to 'get it right' in social situations or to correct inaccurate thinking, rather to encourage individuals to acknowledge that it is impossible to know for sure what others are thinking and feeling; increase acceptance of uncertainty; decrease conviction in their automatic impressions; decrease confidence in their ability to infer others' mental and emotional states.

Outcomes

- Attendance was excellent with all nine participants attending virtually all sessions offered and completing the course.
- We used the Beck Cognitive Insight Scale (BCIS) (self-report) and the Social Cognition Screening Questionnaire (SCSQ-A) which is administered in small groups but completed by self-report.
- In hindsight, we would have included an objective, clinician-rated measure of social functioning.

Outcomes

N=5 had some positive changes on the BCIS; either increased self-reflectiveness and/or decreased self-certainty.

Outcomes

- Two participants had 'invalid' self-reporting on the SCQS due to copying others.
- One of the nine achieved positive change across 3 of the 5 subscores of the SCQS.
- A further three of the nine achieved positive change on at least one of the subscores of SCQS.

Subscores are: ToM; Schematic Inference; Verbal Memory; Metacognitive Overconfidence; Hostility Bias

Qualitative feedback from participants

- *“Nice to feel part of a group”*
- *“Some of the exercises were quite enjoyable”*
- *“Good understanding of ourselves and others in social situations”*
- *“I enjoyed the course”*
- *“It made me look at things differently”*
- *“Helpful for what not to do”*
- *“Good for social things”*
- *“I liked the group”*

Qualitative feedback from co-facilitators

“Overall, I was pleased to notice a significant improvement in social functioning over the course of the intervention. In the initial sessions, I found group participants to be rather reserved and participation in the group discussions tended to be minimal. This will partly be due to the participants not being socialised to such a structured intervention. As the sessions progressed, some participants became more open, volunteered answers and discussion points, and towards the end provided their own examples from social situations for the group discussions”

“Overall, I found the materials to be very appropriate for this client group. The handouts were clear and informative and the structure of the course allowed for plenty of time on each of the topic areas. The video materials appeared to be particularly useful and there seemed to be consensus amongst participants that these were a humorous way to apply and understand the information covered”.

Reflections

- Selection of participants
- Opportunities to practice skills learned outwith the sessions
- Transfer into real life settings

Relevant adaptations

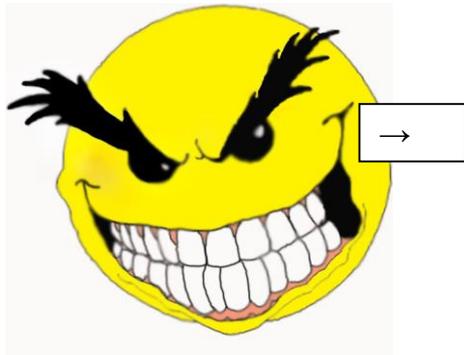
Family-assisted SCIT (RCT; Tas et al 2012)

- A specific family member or close friend was identified as a social cognition practice partner.
- This individual received four sessions of education and training in the approach
- Significant differences, with medium to large effect sizes, were observed for clinician-rated social functioning, symptoms, and quality of life, in comparison with a “social stimulation” control group.

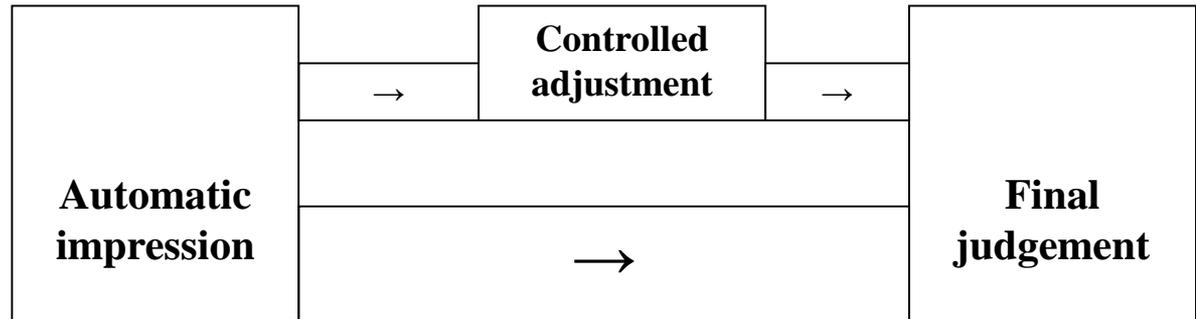
Theoretical underpinnings

The dual processing framework from social psychology provides a useful lens through which to view social cognition and the role of social cognitive interventions. The DP framework holds that social cognitive judgements emerge from an interaction between automatic and controlled cognitive processing.

Dual Processing (DP) model of Social Cognition



Stimulus



Dual processing model of Social Cognition

Controlled processing is less likely to be engaged if the automatic impression is highly salient, if the individual is under cognitive load, emotional arousal, distraction, is cognitively impaired, is unaware that the initial impression might be maladaptive, or is not motivated to question the automatic impression.

Dual processing model of Social Cognition

A plausible Dual Processing model appears to be that Social Cognitive deficits in Schizophrenia arise from 1) excessively salient and aberrant automatic social cognitive impressions, and 2) diminished controlled adjustment capacity.

Treatment implications of a DP framework

- Interventions which lean too heavily towards slowing down and thinking more carefully are unlikely to be successful.
- We all have a tendency towards quick, heuristic processing.
- If we make 'thinking' too effortful and difficult, individuals may be more likely to distrust its product (Schwarz 2004)
- Hence SCIT's use of prototypes (My Fault Mary, Blaming Bill and Easy Eddie) to attempt to rapidly flip perspective and attributional style.

Evidence base

Several studies have tested SCIT's efficacy with schizophrenia-spectrum groups, including a small inpatient, uncontrolled feasibility trial (Penn et al., 2005), an experimental (not randomized) trial of inpatients with an active control group (Combs, Adams, et al., 2007) which included a 6-month follow-up of participants assigned to the intervention (Combs et al., 2009), an outpatient quasi-experimental study (Roberts & Penn, 2009), and a community-based, multi-site, uncontrolled feasibility and transportability study (Roberts, Penn, Labate, Margolis, & Sterne, 2010).

Outcomes

In the majority of these studies, participants showed significant or trend-level improvement on affect recognition, with effects on ToM being less uniform across studies. There is little indication that SCIT improves attributional bias. The two studies that included measures of functioning did suggest SCIT was associated with improvements in this area.

Conclusions from the wider Social Cognition literature

- 1) Whether through targeted, comprehensive, or broad-based treatments, and seemingly irrespective of treatment length, affect recognition can be improved;
- 2) there is some evidence for improvements in ToM, with somewhat less evidence for social perception, though relatively few studies have focused on either of these domains;
- 3) the few studies that have attempted to reduce attributional bias have been mostly unsuccessful.

Future directions

Much work still remains to be done in further refining these treatments, improving their effects across social cognitive domains, and demonstrating both the durability of the training effects as well as their generalisation to important social functioning outcomes.

Future directions

With regard to opportunities for practice, it may quite simply be that in order to impact across social cognitive processes, there needs to be ample opportunity for practice of skills (both in-session as well as in the community) until they become fully integrated and at least somewhat automatic.

Thank you for listening

Any questions or comments?

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