

Cognitive functioning: supporting people with mental health conditions

A Partnership Project between the
Mental Health Coordinating Council and the
University of Sydney Faculty of Health Sciences

Scoping Report and Recommendations



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Executive Summary

The project arose from the gap identified by Raphael Chapman, Partners in Recovery Manager, Western NSW Medicare and Jenna Bateman, CEO MHCC in the knowledge and skills required to work with people experiencing mental health conditions and impaired cognitive functioning. A literature mapping process was undertaken to identify key studies and findings to answer the following question:

What knowledge and skills are needed by the mental health workforce in order to enhance the outcomes of people living in the community with mental health conditions, who are experiencing impaired cognitive functioning?

Four topic areas were explored:

- how cognitive issues present in clients with mental health conditions;
- the factors influencing cognitive impairment in clients with mental health conditions;
- the knowledge, skills and training needs of the mental health workforce when working with people experiencing impaired cognitive functioning;
- and the evaluation of interventions used to enhance, support or improve outcomes for people engaging with mental health support services.

The literature scan identified cognitive impairments as a key feature of some mental health conditions, including schizophrenia and affective disorder.¹ These cognitive impairments may present across the domains of attention, memory, planning, organisation, reasoning and problem solving. The literature reported impaired cognition across these areas to affect daily functioning, in all aspects of life including work, self-care and leisure pursuits. No standards, guidelines or key studies were located regarding training and knowledge requirements of mental health workers when working with people experiencing mental health conditions and cognitive impairments. To address this apparent absence of research evidence, interview questions informed by the literature were developed and posed to workers from some MHCC member organisations and consumers known to MHCC.

Interviews revealed five key themes commonly experienced by workers providing services to consumers with mental health conditions and cognitive impairments. These included: cognitive issues are often difficult to identify in clients; cognitive problems affect many areas of clients' daily functioning; cognitive issues are a barrier to independent living; workers develop their own intuitive strategies to assist clients with cognitive issues; and, a gap exists in the mental health workforce regarding training needs relating to cognition and mental health. These themes correlate with the findings from literature.

Findings from the literature scan conducted during this project, suggested that cognitive impairments are often hidden in nature, and that cognition should be an important consideration for workers, when supporting people with mental health conditions. A gap in the existing literature located was identified, where no standards, guidelines or key studies could be found regarding the training and knowledge needs of mental health workers in relation to working with people with mental health conditions and cognitive impairment. Therefore, worker and consumer interviews were conducted within the scope of this project, to provide preliminary, foundational suggestions around the training

¹ Also called mood disorders. The main types of affective disorders are depression, bipolar disorder, and anxiety disorder.

needs of the mental health workforce in relation to supporting clients who may be experiencing cognitive impairments.

In order to promote early identification of clients' cognitive impairments by the mental health workforce and bridge the gap in skills required by those workers, recommendations have been proposed after integrating the findings from the literature mapping and interviews conducted.

Recommendations

Recommendation 1: Early and ongoing assessment of a client's cognitive capacity, and the impact of this on their functional abilities, is key to providing more efficient, targeted support needs. This should be achieved through:

- Readily accessible and thorough assessments from health professionals (e.g. neuropsych assessments, occupational task assessments and/or cognitive assessments, as well as physical and organic work-ups)
- Better collaboration and communication across service contexts for example as consumers transition between public and community managed mental health services

Recommendation 2: Training and skill development for the community mental health workforce, in order for workers to be better equipped to:

- Identify and recognise when their clients are experiencing cognitive problems and how this may impact on their functional abilities.
- Utilise strategies to assist clients who may be experiencing cognitive problems in the areas of attention, memory, planning and organisation, to undertake daily activities and maintain independent living.

In order to proceed with Recommendation 2, it is a given that prior, it will be necessary to conduct an environment scan of existing approaches (e.g. remedial/compensatory interventions), training and resources to inform a targeted professional development product.

Cognitive functioning: supporting people with mental health conditions in mental health community managed services

Background

The Mental Health Coordinating Council (MHCC) is the peak body representing community-managed organisations (CMOs) in NSW. Member organisations deliver a range of psychosocial support services and programs including accommodation, employment and social inclusion activities, care and service coordination, as well as clinical and peer supported services with a focus on recovery orientated practice. MHCC members also include organisations that provide advocacy, education, training and professional development and information services.

MHCC Membership in NSW consists of over 200 organisations whose business or activity is wholly or in part related to the promotion and/or delivery of services for the wellbeing and recovery of people affected by mental health conditions.

In a partnership arrangement between MHCC and the University of Sydney, Faculty of Human Sciences, MHCC asked four Masters Occupational Therapy students (Rebecca Karmas, Shalyce Corney, Stephanie Clements and Huimin Yang) to conduct a work placement project that set out to investigate the knowledge and skills required by the mental health workforce to effectively support and improve outcomes for people with lived experience of mental health conditions living in the community, with particular reference to those experiencing impaired cognitive functioning.

This document represents the literature mapping process undertaken to inform a report and recommendations that was developed to identify the scope of issues and challenges experienced by the community managed sector workforce supporting consumers experiencing cognitive difficulties.

Project rationale

Some MHCC member organisations have identified a gap in the knowledge and skills required to work with people experiencing mental health conditions, who often experience a complex mix of mental health and co-existing conditions (such as Acquired Brain Injury (ABI), substance misuse, poor physical health and psychosocial disability). Frequently, the competencies absent from a worker's skill set are most evident in relation to addressing impaired cognitive functioning. Cognitive impairment can pose a barrier to independent living, and may affect multiple facets of an individual's life including social relationships, ability to participate in work or study, and community participation. Workers providing services to mental health consumers may overlook the significant functional impacts of impaired cognition, by failing to understand the impact of both the illness itself and the treatment prescribed, for example medication and ECT.

A literature mapping process was undertaken, in order to explore and identify key studies and findings that answer the following question:

What knowledge and skills are needed by the mental health workforce in order to enhance the outcomes of people living in the community with mental health conditions, who are experiencing impaired cognitive functioning?

Key studies were identified in relation to four main topic areas, including:

1. Definitions and presentations of cognitive impairment within the scope of mental health conditions;
2. Factors influencing cognitive impairment in clients with mental health conditions;
3. Knowledge, skills and training needs of the mental health workforce when working with people experiencing impaired cognitive functioning;
4. Evaluation of interventions used to enhance, support or improve outcomes for people engaging with mental health support services.

The information gathered from the literature mapping process was used to inform the development of interview questions to be posed to mental health workers, and consumers in order to explore their experience of working with people with impaired cognitive functioning and explore what knowledge and skill enhancement could better support their working with consumers engaging with mental health services.

Literature Mapping Process

Inclusion Criteria

- Participants:
- Workers providing services to people with mental health conditions
 - People experiencing a range of mental health conditions including schizophrenia and affective disorders (bipolar disorder, depression & anxiety disorders) as well as personality disorders
 - People living in the community with mental health conditions
 - People experiencing cognitive impairments, associated with mental health conditions

Exclusion Criteria

- Participants:
- Patients in acute mental health settings
 - Consumers under 18 years of age

Search Methods

Computerised Medline, Web of Science, CINAHL and PsycINFO database searches were performed from 1999 to 2015, using the search terms COGNIT*, COGNITIVE IMPAIRMENT, COGNITIVE DYSFUNCTION, COGNITIVE DEFICITS, SCHIZOPHRENI*, BIPOLAR, DEPRESSION, MENTAL ILLNESS*, MENTAL HEALTH, FUNCTION and FUNCTION* OUTCOME*.

Studies were selected to be included in the literature map if they were relevant to the specific topic area of cognition and functional impacts for people with mental health conditions. Key studies were sought, including meta-analyses and systematic reviews.

Defining and Identifying Cognitive Impairment

Defining Cognition

Cognition refers to the mental capabilities or thinking skills that allow a person to perceive, acquire, understand and respond to information from their environment (Medalia & Revheim, 2002). In a broad sense, cognition means information processing (Trivedi, 2006). Cognition denotes a 'relatively high level of information processing of specific information including thinking, memory, perception, motivation, skilled movements and language' (Trivedi, 2006).

Correlation between Cognition and Mental Illness

Cognitive dysfunction has previously been considered a secondary symptom of some diagnosed mental illnesses, however current evidence indicates that it is a primary symptom or core feature of schizophrenia and affective disorders (Green, 2006; Medalia & Reyheim, 2002; O'Carroll, 2000; Trivedi, 2006; Mohamed, et al., 1999). Consistent with this idea is the finding that cognitive issues often persist on remission of psychotic symptoms in schizophrenia and bipolar disorder and upon remission of low moods in depression (Trivedi, 2006; Rock, Roiser, Riedel & Blackwell, 2014; Robinson et al, 2006). Therefore, cognitive impairments affect functional performance in individuals with mental illness during both acute and remission periods. For example, a systematic review and meta-analysis of cognitive impairments in depression found that 94% of patients involved in the study experienced some degree of cognitive deficits during remission from depression (Rock et al, 2014). This indicated that cognitive impairment is a core feature of depression that occurs separately to episodes of low mood and persists in the absence of clinically relevant symptoms of low mood (Rock et al, 2014).

Studies reporting on bipolar disorder indicate that increased cognitive dysfunction is associated with greater severity of symptoms, the number of affective episodes and the overall duration of illness (Trivedi, 2006; Martinez-Aran et al, 2004). In bipolar disorder, decreased performance in executive functioning and memory tests were most likely to correlate with episodes of illness (Trivedi, 2006; Martinez-Aran et al, 2004). Impairments in verbal learning and memory have been found to affect individuals with bipolar disorder, independent of their clinical state, for example in depressed, manic/hypomanic and euthymic states (Martinez-Aran et al, 2004).

There is also evidence suggesting that depression is associated with a number of deficits in cognitive functions such as memory and learning. Austin, Mitchell and Goodwin (2001) cite a number of studies that explore cognitive deficits associated with depression, stating that verbal fluency, attentional set-shifting and motor speed seem to be the most prominently impaired functions for adults with severe depression.

The Hidden Nature of Cognitive Impairment

For people with schizophrenia, cognitive problems are often overlooked or not addressed due to the presence of psychotic symptoms such as hallucinations and delusions (Medalia & Revheim, 2002). Functional difficulties and barriers to independent living amongst people with schizophrenia may be attributed to other factors. Rather than being correctly attributed to underlying cognitive impairment, these difficulties may instead be viewed as arising from factors such as, what may be judged as 'non-compliant behaviour' (which may in fact be disagreeing with the treatment and service approach), interference from psychotic thinking (i.e., thought disorder, delusions, hallucinations, paranoia), experiences of trauma, institutionalisation, or the negative effects of medication (Fioravanti, et al., 2005). Likewise, cognitive problems are highly prevalent in older adults with depression, and it is often difficult to determine whether cognitive issues such as forgetfulness, are due to depression, normal aging, or other conditions (Medalia & Revheim, 2002).

Presenting Symptoms

Cognitive impairment is considered a core feature of schizophrenia that includes problems in speed of processing, attention/vigilance, working memory, verbal learning, reasoning and problem solving and social cognition (Green, 2006; Weickert, et al., 2000). A meta-analysis of clinical findings suggests that people with schizophrenia experience significant impairment particularly in selective attention (the ability to selectively attend to relevant information while ignoring distractors) as well as in the area of sustained attention (the ability to sustain concentration in continuous effort-demanding situations) and reaction time, including the ability to maintain the speed of perceptual and cognitive processing (Fioravanti et al., 2005).

People who have **schizophrenia** often experience problems in the following aspects of cognition, including the ability to:

- pay attention (Green, 2006; Medalia & Revheim, 2002; Trivedi, 2006)
- remember and recall information (Medalia & Revheim, 2002; Trivedi, 2006)
- process information quickly (Medalia & Revheim, 2002; Green, 2006)
- respond to information quickly (Green, 2006; Medalia & Revheim, 2002)
- think critically, plan, organise and problem solve (Green, 2006; Medalia & Revheim, 2002; Trivedi, 2006)
- initiate speech (Medalia & Revheim, 2002)

People who have **affective disorders**, such as **bipolar disorder and recurrent depressions**, often experience problems in the following aspects of cognition, including the ability to:

- pay attention (Medalia & Revheim, 2002)
- sustain attention (Trivedi, 2006; Robinson et al, 2006)
- remember and recall information (Medalia & Revheim, 2002)
- think critically, categorise and organize information and problem solve (Medalia & Revheim, 2002)
- quickly coordinate eye-hand movement (Medalia & Revheim, 2002; Trivedi, 2006)

Trivedi (2006) reported that there is substantial evidence to indicate that cognitive ability is a good predictor of functional outcome in individuals with schizophrenia and bipolar-I-disorder.

Functional impact of cognitive impairments

Research suggests that cognitive deficits significantly contribute to poor functional outcomes. Difficulties maintaining work and social connections, living independently and acquiring skills form a large component of the disability experienced by people with schizophrenia, as well as affective disorders, and correlate well with degrees of cognitive impairment (Green, 2006). Scanlan and Still (2013) cite a number of studies linking the impact of cognition on functional outcomes for individuals with schizophrenia, as well as bipolar and depressive disorders.

A study by Kiosses and Alexopoulos (2005) found that depression severity and impairment in specific cognitive domains are associated with impairment in the following Instrumental Activities of Daily Living (IADL) functions: 'getting to places of walking distance'; 'going shopping for groceries'; 'preparing own meals'; 'doing housework'; 'doing handyman work'; 'doing laundry'; 'taking medicine' and 'managing money'. They also found that abnormal scores in the cognitive function of initiation was the cognitive impairment affecting most IADLs, and interfered particularly with the ability to shop for groceries, prepare meals, take medicine and manage money. A potential explanation may be that these IADLs require planning, organisation, and initiative; functions that are compromised in individuals with cognitive dysfunction and mental health conditions.

Social and occupational difficulties are widely recognised as core features of schizophrenia affecting social interaction, vocational functioning skills, recreation and activities of daily living (ADLs) including self-care. Poor performance on neurocognitive tasks has been observed to be associated with poor performance on measures of community functioning, psychosocial skill acquisition, and social problem solving (Mohamed, et al., 2008). Cognitive deficits may precipitate psychotic and negative symptoms and determine the functional impairment characteristics of individuals experiencing the disorder (Trivedi, 2006).

Table 1 highlights the areas of function that are affected by various cognitive impairments associated with schizophrenia.

Table 1. Adapted from Figure 2 (Trivedi, 2006)

Cognitive Correlates	Functional Domain
Declarative memory, vigilance, executive function	Social function
Executive function, declarative memory, working memory, vigilance	Occupational functioning
Executive function, declarative memory, working memory	Independent functioning

Poor psychosocial functioning

a) Schizophrenia

Cognitive deficits in schizophrenia related to executive function have been linked to the severity of negative symptoms such as affective flattening, alogia (lack of speech caused by a disruption in thought processes), social withdrawal and avolition (lack of motivation to perform meaningful activities) (Trivedi, 2006).

b) Mood disorders

Roughly 60% of individuals with depression that participated in a study conducted by Rock et al., (2014) exhibited poor psychosocial functioning even after remission of depressive symptoms. Low mood and cognitive impairment have both been associated with poor psychosocial functioning (Rock et al., 2014).

c) Obsessive compulsive disorder

Individuals with Obsessive Compulsive Disorder experiencing cognitive symptoms have been found to exhibit reduced social competence, reduced capacity for independent living and vocational success (Trivedi, 2006). The specific cognitive impairments related to each of these functional outcomes are not explained in Trivedi's article (2006).

Other Factors

There is strong evidence suggesting that first-generation antipsychotic drugs² have marked cognitive-impairing effects in patients with schizophrenia, when compared to second-generation antipsychotic drugs³ (Weickert & Goldberg, 2005; Green, 2006; O'Carroll, 2000). However, there is also strong evidence suggesting that drug-free patients with schizophrenia (who have either been taken off their medication or never been prescribed any neuroleptic and anticholinergic medication) have marked and severe cognitive impairments (O'Carroll, 2000; Mohamed, et al., 1999). Therefore, although some types of medication may particularly contribute, they do not solely or necessarily account for the cognitive impairment observed in people with schizophrenia.

² First generation antipsychotic drugs including Haloperidol

³ Second generation drugs including Clozapine, Olanzapine, or Risperidone

Identifying Mental Health Worker Training and Knowledge Needs

Within the limitations of the project, despite a comprehensive search strategy internationally, no standards, guidelines or key studies could be found regarding the training and knowledge needs of mental health workers in regard to working with people with mental illness and cognitive impairment.

One document produced by the New York State Office of Mental Health titled: "Dealing with Cognitive Dysfunction Associated with Psychiatric Disabilities: A Handbook for Families and Friends of Individuals with Psychiatric Disorders" ⁴ offers some information that could be useful to mental health workers to improve their awareness of cognitive impairments and their interactions with clients. This handbook outlines basic information regarding the correlation between cognitive dysfunction and mental illness, how these problems are manifested in daily life and impact on daily functioning, as well as what family and friends can do to help. As the target audience of this document is the family and friends of mental health consumers it is not a formal, peer reviewed, rigorously designed publication informed by research evidence. Without references to support its information, or an outline of the methods used to collect the information it contains, the handbook is however, published by a reliable authority on mental health and authored by qualified, knowledgeable individuals. The following information should be considered with that in mind.

It stands to reason that information considered relevant to family and friends, people who provide support and assist with care, and may or may not participate in the delivery of specific interventions determined by treating mental health practitioners, may also be relevant for mental health and human services workers who have a role in providing vital support services at a number of different levels. Therefore, according to what is provided to families and friends within the handbook, the answers to the following questions should also be provided to mental health workers:

- What is cognition?
- What is cognitive dysfunction?
- How does mental illness affect cognition? Why?
- Who is affected by cognitive dysfunction?
- How do cognitive problems show up in daily life?
- How do cognitive problems impact daily functioning?
- What is the impact of medications on cognition?
- Can cognitive dysfunction be treated? By who?
- What can I do to assist with memory?
- What can I do to assist with attention?
- What can I do to assist with critical thinking skills?

The information provided in the handbook ranges from basic understanding of cognition to strategies to improve communication and alter expectations of performance. The extent to which these

⁴ Available: [https://www.omh.ny.gov/omhweb/cogdys_manual/CogDysHndbk.pdf]

strategies can be transferred to be used in various roles that mental health and human services workers undertake is unknown. The handbook does not provide information pertaining to the implementation of specific interventions, only providing a brief, general description of remediation, compensatory and adaptive approaches undertaken by various health disciplines. The handbook proposes that a treatment plan is determined by a health professional, such as a neuropsychologist, psychologist or occupational therapist, and training in the execution of various interventions is discipline specific. Others who assist in the care of individuals with mental illness and cognitive impairment may then be instructed in how they may assist with the intervention and this instruction is the responsibility of the prescribing professional. MHCC would argue that from the perspective of recovery orientation that planning should involve a much more collaborative approach with the client, carers and support providers.

Identifying possible strategies

Cognitive Remediation Therapy (CRT)

Various 'intervention' strategies are being used to treat the cognitive deficits associated with mental illness. For example, a meta-analysis of Cognitive Remediation Therapy (CRT) found out that it produces moderate improvements in cognitive performance in patients with schizophrenia (McGurk et al., 2007). It is also suggested to provide improvement in organisational skills and ADLs for adults with attention deficit hyperactivity disorder (ADHD) (Stevenson et al., 2002). CRT addresses the process rather than the content of thinking, thus helping patients to develop a metacognitive awareness of their own thinking styles (McGurk et al., 2007), it is various in the presence of a therapist and their mode of practice (Wykes & Spaulding, 2011).

Findings from a meta-analysis (Wykes, et al., 2011) looking at the effectiveness of CRT, suggested that CRT has a small to moderate durable effect on cognitive outcomes for people with a diagnosis of schizophrenia. Wykes et al (2011) propose that CRT for schizophrenia is 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'. The authors' found that functional outcomes are best achieved by using a more strategic CRT approach, embedded in the individual's daily activities, rather than the drill and practice of CRT strategies. Studies where concurrent rehabilitation (psychological and psychosocial) was provided alongside CRT demonstrated significantly improved outcomes.

Environmental and occupational modification

While capacity building strategies focus on changing/improving a person's capabilities, environmental and occupational modification strategies focus on establishing a supportive context for functional performance and modifying the task to match the client's capacities. For example, providing checklists to a client who has impaired working memory to remind them of the things needed to be done. For clients who have difficulties in paying attention, reducing the distracting factors in the environment and cutting down the task into several parts would make it easier for the clients.

The Perceive, Recall, Plan and Recall (PRPP) system of task analysis (Chapparo & Ranka, 1997) can be utilised to raise a worker's awareness on cognitive impairments and gain an understanding of different kinds of difficulties clients may experience due to different cognitive impairments. The PRPP system is a process-oriented assessment that employs task analysis methods to determine problems with cognitive information processing functions during routine, task performance (Chapparo & Ranka, 1997). The PRPP System is usually used to describe the impact of cognitive impairment on client performance of daily tasks and informs intervention (Chapparo & Ranka, 1997).

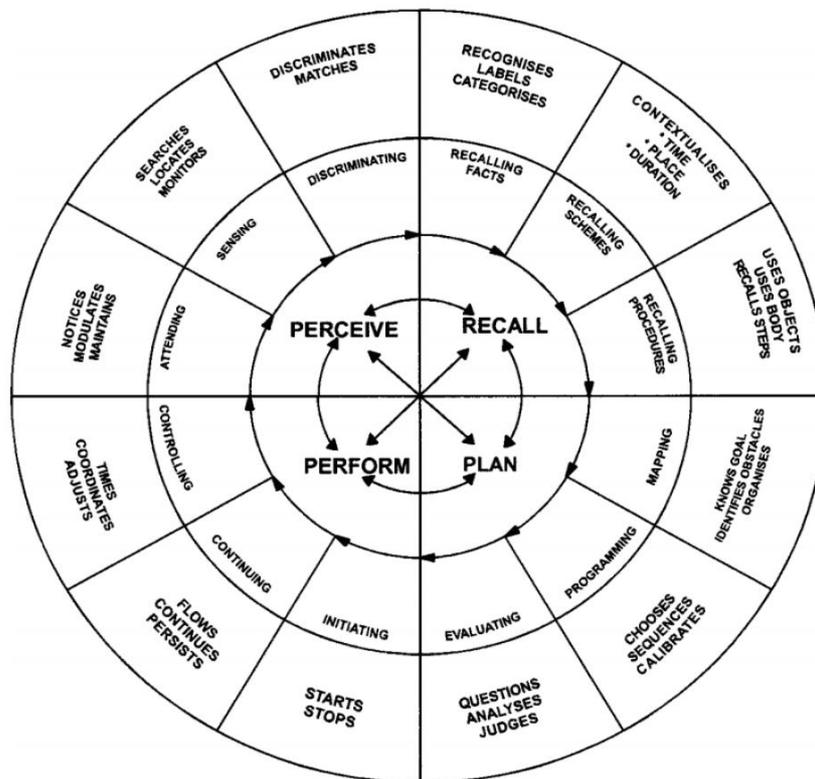


Figure 1: The Perceive, Recall, Plan and Perform System of Task Analysis (Chapparo & Ranka, 2005).

The information processing strategies measured in the PRPP assessment represent four processing dimensions:

1. attention and sensory perception (Perceive);
2. memory (Recall);
3. response planning and evaluation (Plan); and
4. performance monitoring (Perform).

These are illustrated in the central quadrants of the PRPP assessment's conceptual model (Chapparo & Ranka, 2005; see Fig. 1). There are total 34 behavioural 'descriptors' representing the observable behaviours in daily living, such as 'maintain', 'recall steps' and 'coordinate'. Service providers could connect their observation of clients' behaviour to these systems to identify the component representing impaired cognition and direct the intervention and goal setting.

Summary of Findings

The literature reviewed suggests that cognitive deficits are core features of mental health conditions such as schizophrenia and affective disorders, including bipolar and depression. Cognitive impairments may include problems with attention, memory recall, planning, organising, reasoning and problem solving. These cognitive skills are essential for many functional tasks including work, study, social interactions, community participation and independent living.

Finding 1 - cognition is an important component of a person's functional abilities and should be a key consideration for workers when supporting clients who are experiencing mental health conditions.

The effects of long-term institutionalisation, experiences of trauma and life-long impacts including dissociative disorders may be attributed to a person's diminished functional capacity, making cognitive capacities difficult to identify.

Finding 2 – services should acknowledge cognitive functioning as integral to the design and development of programs and resources.

It is important that service users' experiences and perspectives of programs and services are sought and taken into account, including their perspectives of some of the cognitive interventions referred to in the literature findings of this report.

Finding 3 - the workforce providing support services to people with mental health conditions across community managed mental health services should have access to training and professional development to gain a better understanding and awareness of the role of cognitive impairment in poorer functional outcomes and how to better work with cognitive difficulties during care planning. Training should include addressing the question of how cognitive functioning focused supports sits with the concept of recovery-orientation and trauma-informed care and practice.

Interview methodology

Interview questions were informed by the information gleaned during the literature mapping process. The purpose of the interviews was to understand the experiences and attitudes of workers in the community mental health sector regarding their work with clients who experience cognitive impairments in conjunction with, or as a result of, their mental health conditions. Interview questions were reviewed by two advisory committee members. Supervisory feedback was accepted and the questions were adapted accordingly (See Appendix 4).

The interviews were semi-structured and followed a flexible interview guide, allowing the interviewees to expand on certain areas they viewed as relevant to the topic. The flexible interview guide also allowed the interviewers to pose additional questions to either clarify concepts introduced by the participants or to enquire further about topics that arose during the interviews. Additional questions were posed at the discretion of the interviewers.

All interviews comprised of one to two interviewees were conducted by two interviewers. The purpose of interviewing two workers simultaneously was intended to provide the opportunity for interviewees to build and expand upon each other's ideas. An interview schedule was devised and a Participant Information Statement (see Appendix 2) and a Consent Form (see Appendix 3) were prepared and forwarded to all participants. Consent forms were collected prior to the commencement of the interviews. All interviews, except one, were conducted over the phone. The

remaining interview was conducted in person, with two people with lived experience of mental health conditions who have both engaged with a variety of services. The questions posed in the consumer interview were altered accordingly (see Appendix 5) nevertheless, they included much of the same content as worker interviews.

All interviews were audio-recorded except one. The interview that was not recorded was transcribed and sent to the interviewees for member checking to ensure the transcript was consistent with the interviewee's intended thoughts. As stated in the consent form, audio-recordings were deleted at the conclusion of data transcription.

A light form of thematic analysis was performed for each interview by a project team member who had conducted that particular interview (i.e., no group member analysed an interview that they did not participate in). This ensured that the student was familiar with the interview content, and therefore enhanced the trustworthiness of findings. Salient points for each interview were noted during review of audio recordings. For the interview that was not recorded, the two interviewees made detailed notes and consulted each other at the conclusion of the interview. Interview texts were coded and grouped under common themes. These themes included perceived effects of cognition on daily functioning, strategies used by workers when collaborating with consumers and perceived training needs.

Interview limitations

Interviews were limited in number and duration due to the project time constraints. Nonetheless, the students were able to achieve saturation of themes from the eight worker interviews. Saturation of themes could not be reached for the consumer interviews, as only two consumers were available for consultation during the interview process. Interviews were between 20 and 30 minutes duration and most worker/consumer interviews were conducted in pairs. Despite these limitations, the evidence gleaned from the interviews is most valuable since the student project team members were unable to locate interviews of this nature within the current literature. The following themes therefore constitute preliminary evidence that should be further explored in future projects.

Key Themes

Five key themes emerged from the interview process. These themes appear to reflect the common experiences identified by workers providing services to people with mental health conditions who experience difficulties with cognitive functioning. Themes included:

1. Cognitive difficulties are often difficult to identify in clients.
2. Cognitive difficulties affect many areas of their clients' daily functioning.
3. Cognitive difficulties are a significant barrier to independent living.
4. Workers develop their own intuitive strategies to assist clients with cognitive issues.
5. There is a gap in meeting the training needs required in relation to cognition and mental health.

Difficulty recognising cognitive problems

Interviewees identified that cognitive difficulties experienced by clients often go unacknowledged or unrecognised due to difficulty distinguishing between cognitive impairment and other factors (such as mental health symptoms). Workers identified that underpinning cognitive issues are often confused with mental health related symptoms. Phrases such as the client presenting as 'unmotivated', or 'not ready for change' or 'lacking insight' or 'challenging' are commonly used as

an explanation for behaviours, rather than considering that the client may not have the cognitive capacity to undertake the task. Often access to clear cognitive or neuropsych assessments would assist workers to better understand their clients' needs and provide care to adequately address the level of support necessary. However, it was stated that due to a lack of funding and access to these services, such assessments are not always possible. One interviewee commented of some clients that *"They often have a terrible reputation for being 'challenging' or 'doesn't want help' or 'doesn't want services'". Once we are getting people assessed these are the guys with actual diminished cognitive capacity."*

Without clear assessments workers reported often making assumptions about what the clients' underlying issues are, stating that they go through a process of 'trial and error' with their interventions and support. For workers, finding the right balance between promoting independence and autonomy, and offering support can be difficult, particularly when the client is experiencing complex issues such as cognitive impairment. One interviewee stated, *"We aren't always skilled in being able to assess [clients' cognitive capabilities]. It feels like we're guessing a lot of the time"*. Gaining a more thorough understanding of the clients' cognitive capacity would aid workers to be able to target their support levels to better meet the needs of their clients.

One interviewee stated that the key to being able to recognise a cognitive problem in a client is to spend time observing how they perform tasks and respond to different situations. Gaining a good understanding of the clients' presentation, behaviours and triggers is essential for being able to distinguish whether underlying cognitive issues are present. However, due to competing priorities and high caseloads, there is limited time to build rapport and gain a thorough understanding of client's needs when there are complex issues at play (such as cognitive difficulties).

Another interviewee discussed some of the difficulties of being able to address a clients' cognitive capacity, within the recovery-oriented practice framework. They explained that working with clients in recovery-focused practice involves encouraging clients to take on responsibility for their own health and wellbeing and promoting independence. However, if workers don't fully understand their clients' cognitive capacity, they may not be able to provide the level of support required to adequately meet their clients' needs. This interviewee stated *"workers are often too scared to say that the client simply doesn't have the capacity in certain areas, as it might seem that we're not being recovery-focused"*.

Cognitive issues and daily functioning

The interviewees were able to identify how cognitive problems in areas of memory, attention, planning and organisation affect a variety of areas of daily functioning in their clients' lives. Interviewees identified that many of their clients have difficulty with attending and maintaining concentration on tasks. Examples included clients becoming distracted and unable to see tasks, such as cooking, cleaning and shopping, through to completion. Some workers described difficulty maintaining their clients' attention for the duration of a case plan meeting, due to the clients' inability to maintain concentration. Workers stated that a clients' cognitive capacity for attention is particularly evident within group sessions (i.e. group therapy or skills-based groups such as cooking). Many clients' will leave the group halfway through or exhibit 'challenging' behaviours such as calling out, refusing to participate in group activities or wandering around the room; all behaviours that may be attributed to their inability to maintain attention, which is a key cognitive function.

All interviewees commented that their clients experience great difficulty keeping appointments. Interviewees attributed this to possible cognitive problems in the areas of memory, planning and organisation. One interviewee stated that clients *'get so punished for [not keeping appointments]'*.

Workers will often make appointments with clients to attend various services and practitioners (e.g. housing, drug and alcohol, psychiatrists), and, with the aim of promoting independence and autonomy, organise for clients to attend the appointment independently, only to discover that they never turned up. This can be problematic as many of these services have long waiting lists and once an appointment is missed, it may not be possible for another appointment to be made for months ahead. Many interviewees found that clients in these situations often get labelled as 'unmotivated.' Workers reported that, if they searched deeper, the majority of the time the reason is often that the client didn't have the capacity to manage their time effectively and organise themselves appropriately to make the appointment. Again, these are crucial cognitive functioning abilities. Interviewees discussed difficulties assessing the '*right balance of support needs*' in these situations when trying to determine whether the client needs more support due to limited capacity or whether autonomy and independence should be encouraged.

Interviewees stated that there are often difficulties in goal setting and achievement when working with clients who may have cognitive problems. Clients will present in case planning meetings as if they understand the goal and are clear about what needs to happen, but when steps aren't taken towards that goal, workers often discover that the client is unsure of how to execute the plan. There is often a mismatch between clients' understanding of the goals and the ability to execute steps to achieve the goal. Workers described this to be particularly evident when clients need to access complicated government processes, such as those required by Centrelink and the NSW Housing.

Shopping, budgeting, planning meals and cleaning the house were other common area of difficulty for clients who may experience cognitive functioning problems, as these tasks involve a high level of attention; memory; organisation and planning. Workers found that clients often have difficulty planning meals, and end up spending money on groceries that they don't use. This often results in poor nutrition and physical health as clients then purchase ready-made, unhealthy meals. '*Cleaning the house*' was also described by interviewees as being a difficult task for many of their clients. Often in these situations, interviewees stated they have discovered that the client wishes to keep a clean house, but doesn't understand the steps involved in undertaking the task, possibly due to limited cognitive planning and organisation capacities.

The two consumers who were interviewed described experiencing difficulties with their memory, particularly during periods of increase symptoms relating to their mental health condition. Examples given included not being able to remember names and places, as well as keeping track of meetings and appointments. One consumer described that memory difficulties also impact on their self-esteem and confidence, as they fear being judged for forgetting simple tasks or information.

Cognitive problems are a barrier to independent living

The majority of interviewees identified safety issues resulting from cognitive impairments as being the greatest barrier to independent living for their clients. Interviewees provided examples of fires occurring when clients had become distracted during cooking tasks or forgetting to turn the stove off; flooding of houses due to clients forgetting to turn off taps; expensive electricity bills when clients had forgotten to turn off appliances such as heaters; and clients becoming sick from eating spoiled food due to not adhering to food hygiene procedures. Interviewees reflected on the primary cause of these situations, noting that they most likely occurred due to cognitive impairment, and that they had only realised this was the underlying issue after the incident had occurred.

Strategies used by workers to assist clients

Many workers provided examples of how they identify when their clients are experiencing cognitive problems and have taken on client-centred strategies that address the underlying cognitive issues. Interviewees provided a variety of examples of strategies they have used to assist with attention difficulties, including incorporating breaks into sessions, diversifying activities, providing verbal or visual prompts to maintain clients' attention on the task, and use of rewards (e.g. incorporating a pleasurable activity at the completion of a not-so-pleasurable task). To assist with clients who may be experiencing memory difficulties, interviewees described several useful strategies to assist clients with functional tasks, including writing down 'to-do' lists, keeping diaries for appointments, using technology (e.g. iPhones) to set reminders, practicing mindfulness and having visual prompts up in their houses.

One salient point that all interviewees touched on was the importance of really 'listening to your clients' and seeking to understand what their needs are. Workers advised against making assumptions about why clients are behaving in certain ways or not meeting case plan goals. Instead, they suggested having an honest conversation with the client to identify what the difficulties are. Workers stated that clients may have difficulty verbalising why they are experiencing difficulty with certain tasks, therefore workers should observe them or undertake the task with the client in order to witness where the problem lies first-hand. This requires time, effort and rapport-building, but will ultimately provide workers with more valuable information to better target their clients' support needs.

Training and Skill Development Needs

All interviewees identified that they have not received any specific training around how to identify and work with clients who may have cognitive impairment in conjunction with, or as a result of, mental health conditions. Some interviewees described training they have received relating to cognitive impairment with clients who may have had brain injuries, or working with cognitive impairment due to onset of dementia, but none with focused on the functional impacts of cognitive impairment in clients with mental health conditions.

Some interviewees stated that they felt specific training on the functional impacts of cognitive impairments may be useful. They stated that this would provide workers with practical strategies to implement in practice to assist clients to cope with their daily tasks. Interviewees expressed the desire to gain skills in identifying when their clients might be experiencing cognitive problems, and how to distinguish these from other mental health or drug and alcohol complications, in order to provide more targeted support that better meets their clients' needs. Interviewees described one of their key roles with clients as being to assist them in managing the day-to-day living tasks. Therefore, training should include practical strategies that workers could implement to improve their clients' functional abilities.

Summary

Key themes and findings from worker and consumer interviews supported the findings gleaned from the literature review. Workers were able to provide practice examples from their own experiences of working with clients who may be experiencing cognitive impairments associated with their mental health conditions.

Workers identified that it is often difficult to distinguish when a client is experiencing cognitive problems, and early detection is key to more effectively meeting clients' support needs. Workers and consumers provided insights into how cognitive impairments in the areas of attention, memory, planning and organisation, can affect multiple facets of daily living and functional capacity.

As a consequence of identifying the key themes, the following recommendations are proposed with careful consideration of what is needed for workers to better support their clients who may be experiencing cognitive issues associated with their mental health condition.

Recommendation 1: Early and ongoing assessment of a client's cognitive capacity, and the impact of this on their functional abilities, is key to providing more efficient, targeted support needs. This should be achieved through:

- Readily accessible and thorough assessments from health professionals (e.g. neuropsych assessments, occupational task assessments and/or cognitive assessments, as well as physical and organic work-ups)
- Better collaboration and communication across service contexts for example as consumers transition between public and community managed mental health services

Recommendation 2: Training and skill development for the community mental health workforce, in order for workers to be better equipped to:

- Identify and recognise when their clients are experiencing cognitive problems and how this may impact on their functional abilities.
- Utilise strategies to assist clients who may be experiencing cognitive problems in the areas of attention, memory, planning and organisation, to undertake daily activities and maintain independent living.

In order to proceed with Recommendation 2, it is a given that prior, it will be necessary to conduct an environment scan of existing approaches (e.g. remedial/compensatory interventions), training and resources to inform a targeted professional development product.

Next steps

A key recommendation arising from the study that included the literature mapping and interviews with member organisations was that:

Training and skill development for the community and public mental health and human services workforce is proposed for workers to be better equipped with the skills and competences to:

- Identify and recognise when their clients are experiencing cognitive difficulties and how this may impact on their functional abilities.
- Utilise strategies to assist clients who may be experiencing cognitive difficulties in the areas of attention, memory, planning and organisation, to undertake daily activities and maintain independent living.

MHCC is partnering with Marathon Health, a Primary Health Network in Western NSW to progress the project in order to deliver on these recommendations. This new project seeks to develop a training/skill development resource for the mental health and human services workforce across service settings, particularly relevant in the context of the NDIS rollout. Marathon Health have been a key partner throughout the project, actively participating on the AWG and enabling consultation and interviews with their Partners in Recovery services on the ground.

The project will include:

- The development of training materials for a 2 day workshop 'Cognitive Functioning: supporting people with mental health conditions and cognitive impairment', including a worker resource book, power-point presentation slides and training plan.
- Pilot training to be delivered in Dubbo, NSW to a maximum of 15 participants from a diversity of mental health and psychosocial support services in Western NSW within the Marathon Health catchment area.
- Updates to training material arising from the pilot experience and feedback.

Outcomes

Workers participating in the training will benefit from the pilot training and skill development opportunity, after which it is expected they will be better equipped to identify and recognise when clients are experiencing cognitive difficulties: how this may impact on their functional abilities; and utilise strategies to assist in the areas of attention, memory, planning and organisation, to undertake daily activities and maintain independent living, including self-advocacy.

Organisations will be able to look to these activities as part of quality improvement, sustainability and accreditation. In turn this will benefit clients, enhancing their ability to function independently. Subsequently the training activity could be rolled out across other services working with this client group. The knock – on effect of the training activity is cost effectiveness through cost reduction of supporting people long-term who with more appropriately skilled mental health support workers (including peer workers) may improve recovery outcomes and potentially enjoy more autonomy from service supports.

Management and Governance

The development of training materials will be guided by an Expert Reference Group to ensure training is high quality, relevant and reflects workforce needs and requirements.

An Expert Reference Group has already contributed extensive experience and expertise concerning cognitive impairment and working with the challenges and barriers experienced by clients in the project that informs this proposal. The existing group has expressed a willingness to continue to share their knowledge about the skills and competencies required to support clients towards greater independence. Whilst our intention is to expand the ERG to particularly include consumers and carers and other important stakeholders, we propose that the continued support of existing members is vital to the success of ensuring the deliverables are forthcoming.

The following organisations and individuals participating will be:

- Laurie Bassett, Manager, Partners in Recovery
- Jenna Bateman, Chief Executive Officer, MHCC
- Luke Butcher, Area Manager Western NSW, Mission Australia
- Raphael Chapman, Partners in Recovery Manager, Western NSW Medicare Local
- Bill Gye OAM, General Manager Recovery Services Schizophrenia Fellowship NSW
- Corinne Henderson, Principal Advisor | Policy & Legislative Reform, MHCC
- Chris Keyes, Manager, MHCC Learning and Development (until January 2016)
- Andrew O'Brien, General Manager Operations (South/East) Richmond PRA
- Justin Scanlan, Lecturer, Faculty of Health Sciences (OT) Uni Sydney

Appendix 1. Project Specification Brief (Abbreviated version)

Project Name: Supporting Cognitive Functioning in Mental Health: Program and Resource Development Foundations.

Project Team: Stephanie Clements
Shalyce Corney
Rebecca Karmas
Huimin Yang

Community Partner: Mental Health Coordinating Council (MHCC)

Project Supervisor: Corinne Henderson

Identification of Community Need

MHCC member organisations have identified a gap in the knowledge and skills required to work with people experiencing mental health challenges with complex needs. This gap appears most prominent amongst mental health consumers experiencing impaired cognitive functioning. Barriers to independent living associated with cognitive impairments may be poorly understood by workers. This may affect worker attitudes and/or consumer care. In order to bridge this gap, MHCC aims to increase the awareness, skills and knowledge related to overcoming cognitive barriers by incorporating a cognitive-specific component into the Certificate IV in Mental Health.

Project Overview

The aim of the project is to determine the knowledge and skills required by the mental health workforce in supporting and improving outcomes of clients with mental health conditions living in the community, and particularly those experiencing impaired cognitive functioning. Cognitive impairments may relate to organisational ability, planning and/or memory. Outcomes of interest may include level of support, independence, participation in activities of daily living, cognition, and social or interpersonal skills.

A report will be developed identifying the scope of issues and challenges experienced by people working with mental health consumers experiencing impaired cognitive functioning. This will explore workers' perceptions of their training and resource needs, informed by literature and consultation with workers.

Project Audience

MHCC member organisations employ workers from a variety of disciplines and with various qualifications. The workforce includes community mental health workers, peer workers, doctors, nurses, social workers and allied health professionals across community, public and private sectors. While it should be kept in mind that the overall project aims to inform training programs for this workforce, the immediate audience for the report will be the policy advisors and program developers at MHCC who will ultimately use this information for training programs and resource development.

The following values and theories will guide this project:

- **Recovery-Oriented Practice**
In the context of mental illness, recovery involves actively engaging in life as well as gaining autonomy, social identity and a positive sense of self. The principles of recovery-oriented practice ensure that services delivery supports the recovery, dignity and respect of consumers (Australian Government Department of Health, 2010).
- **Occupational Justice**
Individuals depend on access to diverse opportunities and resources for participation in culturally-defined and health-building occupations, which impact on well-being. Denial of access to opportunities and resources to participate in such occupations is unjust (Townsend and Wilcock, 2004).
- **Trauma-Informed Care and Practice (TICP)**
TICP is grounded in and directed by an understanding of the neurological, biological, psychological and social effects of trauma and interpersonal violence, and the prevalence of these experiences in persons who receive mental health services. A trauma-based approach primarily views the individual as having been harmed by something or someone (MHCC, 2015).
- **The Occupational Performance Model (Australia)**
The OPMA is a conceptual model that explores the complex network of factors involved in occupational performance. The model illustrates functional barriers to occupational performance and well-being and is applicable to people experiencing mental illness. The OPMA explores cognitive, biomechanical, sensory-motor, interpersonal and intrapersonal components and the interaction between these components within the performance of occupations (Chapparo and Ranka, 1997).

Deliverable

This project will culminate in the delivery of a report identifying key studies and findings to answer the following question:

What knowledge and skills are needed by the mental health workforce in order to enhance the outcomes of people living in the community with mental health conditions who are experiencing impaired cognitive functioning?

To answer this question, literature will be sourced and reviewed in order to report on key studies that:

1. Provide definitions relevant to cognitive functioning and mental illness.
2. Describe factors influencing cognitive impairment in clients living in the community experiencing mental illness.
3. Investigate the knowledge, skills and training needs of mental health workers when working with clients living in the community who experience mental illness and impaired cognitive functioning.
4. Evaluate interventions to enhance, support or improve outcomes for clients living in the community who experience mental illness and impaired cognitive functioning.

Key studies will inform the development of interview questions to be posed to mental health workers in order to explore the perceptions of the mental health workforce and consumers of mental health services. Up to five brief interviews will be conducted with stakeholders from MHCC partner organisations, including:

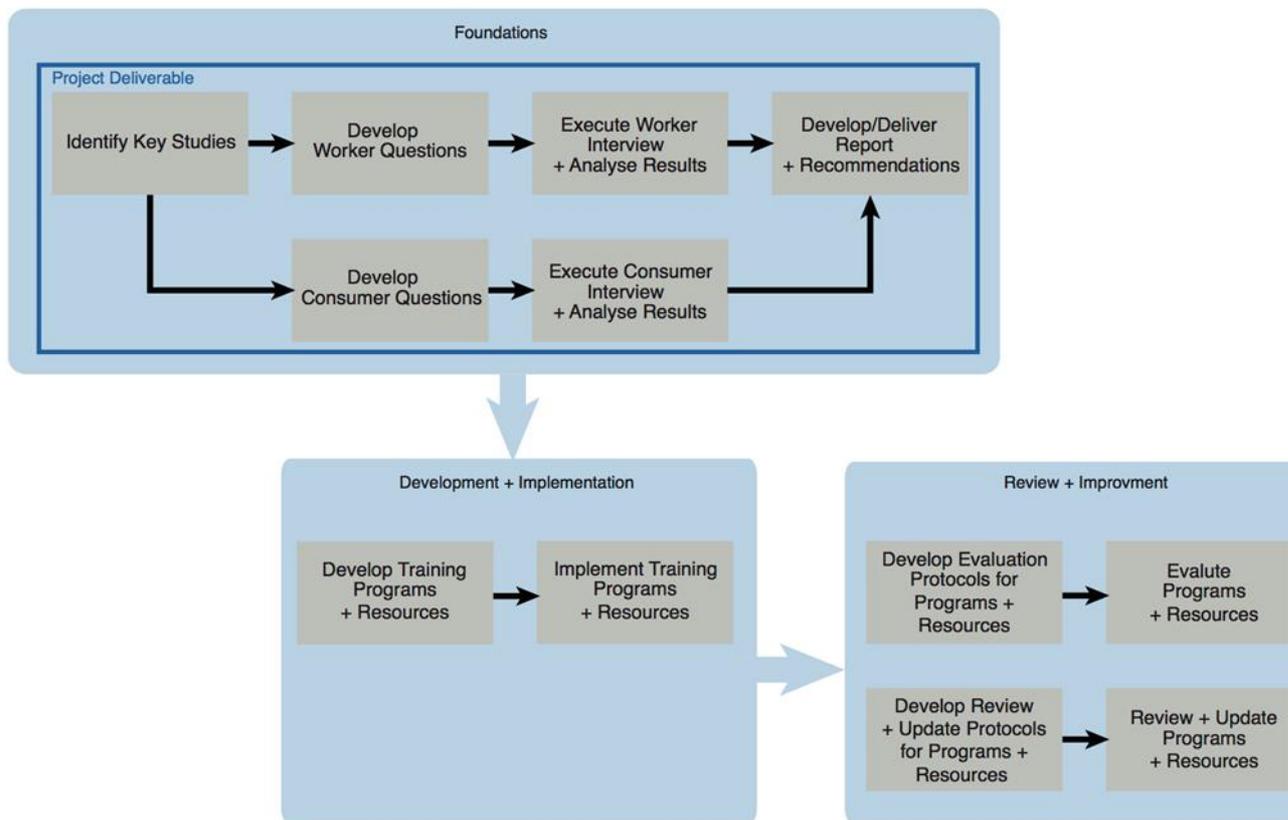
- The mental health workforce, to better understand their needs in relation to supporting clients living in the community who experience mental illness and impaired cognitive functioning; and
- The consumers of mental health services, to better understand their support needs and preferences.

The final report will include;

1. Results of the literature findings.
2. Summaries of the key concepts from interviews with stakeholders.
3. A list of recommendations based on these results.

Deliverable in Context

The deliverable of this project will be a component of a larger project which aims to meet the knowledge and training needs of workers within MHCC member organisations. The insights and recommendations identified in this project will inform the next steps taken by MHCC regarding the development of the content and structure of appropriate training programs and resources.



Appendix 2. Participant Information Statement



Faculty of Health Sciences

Stephanie Clements
Masters of Occupational Therapy Student

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Faculty of Health Sciences
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SUPPORTING COGNITIVE FUNCTIONING IN MENTAL HEALTH: PROGRAM AND RESOURCE DEVELOPMENT FOUNDATIONS PARTICIPANT INFORMATION STATEMENT

1. What is this study about?

You are invited to take part in a project about the knowledge and skills required to provide quality services to clients experiencing mental health conditions living in the community, particularly those experiencing cognitive impairments.

You have been invited to participate in this project because your experience will help us identify the issues and challenges confronted by workers when dealing with mental health consumers. This Participant Information Statement tells you about the project. Knowing what is involved will help you decide if you want to participate. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

2. Who is running the study?

The project is being carried out by students from the University of Sydney, Masters of Occupational Therapy Program, in collaboration with the Mental Health Coordinating Council (MHCC). This student project will take place under the supervision of Corinne Henderson, Principal Advisor | Policy & Legislative Reform, MHCC.

3. What will the study involve for me?

- You will be involved in a one-hour interview to discuss any challenges you have come across while supporting clients with mental health conditions, particularly those experiencing impaired cognition. The interview will be conducted at your facility, on a date that is convenient for you.
- Interviews will be audio recorded for academic usage only. Recording will not be published and will be erased at the completion of this project.

4. What will happen to information about me that is collected during the study?

Your opinions will be used to help us identify the challenges experienced by mental health workers when supporting clients with mental health conditions, and will help us to propose recommendations for training programs to increase service provision. The collected information will not be used outside this project.

5. What if I would like further information about the study?

When you have read this information, the student team members and Corinne Henderson will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the project, please feel free to contact:

Stephanie Clements on 0430 002 589 or email scle5803@uni.sydney.edu.au or
Corinne Henderson on 02 9555 8388 or email corinne@mhcc.org.au

This information sheet is for you to keep

Appendix 4. Interview questions

1. What is your role?
2. How long have you been working in the mental health field?
3. What are some of the challenges you face when working with people with mental health conditions?
4. How do you assess the changing level of support you provide to your clients, throughout their recovery journey?
5. In your work, what characteristics have you seen in your clients that might suggest cognitive problems?
6. How have these cognitive problems impacted their daily lives?
7. What strategies do you employ in your work to help people with cognitive difficulties such as planning, memory and attention?
8. What do you consider to be the greatest barriers to independent living for the people you work with?
9. On a scale of 1 to 10 (1 being not confident at all and 10 being very confident) how confident are you in working with cognitive difficulties that your clients are experiencing? Why did you rate yourself at this level?
10. Have you received training on how to work with cognitive difficulties with your clients? If so, what training? If not, what would be a useful process for meeting this need?
11. What advice would you give to a new worker in your position with regard to working with clients with mental health challenges and cognitive impairments?

Appendix 5. Interview questions (for consumers)

1. What is your role in your respective jobs?
2. What is your experience with the mental health sector?
3. How long have you been a consumer of mental health services?
4. What are some of the barriers or challenges to functioning have you experienced as a result of mental illness?
5. How did you coordinate your care? Did you have someone who helped you or did you find the people/services yourself?
6. Have you found any barriers or challenges to working with health professionals or mental health services that you engaged, in regard to them understanding your cognitive impairment?
7. How severely have cognitive functioning problems impacted your daily lives? (And did you feel the people who were working with you understood?)
8. Were there any strategies that you used that helped with planning, memory and attention? (And were they introduced to you or did you develop them yourself?)
9. Which services were the most helpful/understanding in regard to cognitive impairment?
10. What do you think a mental health worker should be trained in?
11. What advice would you give to a new mental health worker?

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