

# Substance abuse treatment relies on good brain function, which many users don't have

August 14 2018, by Julaine Allan

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Credit: AI-generated image ([disclaimer](#))

Methamphetamine and opioid use has become a problem in Australia, and a recent New South Wales [parliamentary inquiry](#) recommended urgent action for more substance treatment services, especially residential rehabilitation.

People seek drug and alcohol [treatment](#) because their substance use is having a negative effect on their health, wellbeing, relationships or other personal circumstances.

Excluding medications, the most effective types of treatment are counselling approaches such as [cognitive behavioural therapy](#) and [motivational interviewing](#). But these methods won't work for many of the people using these services, and that needs to be recognised before we can help them.

## How does drug treatment work?

These methods are based around cognitive and behaviour change activities, where people analyse risky situations, thoughts and feelings by talking and thinking about how they can reduce or manage their substance use. Learning, problem-solving and planning for the future are [key tasks](#).

Most [treatment guidelines](#) suggest people try the lowest intensity treatment, such as weekly counselling, to start with. They will then seek more intensive options if they need more support to change their substance use.

Residential rehabilitation is the most intensive treatment. Residential programs are best for people who have serious substance problems they can't control at all, or they also have mental health problems or unsafe home environments where drug use [is common](#).

Residential rehabilitation offers a safe, structured environment with individual and group therapy for people to learn about controlling substance use triggers and cravings.

Not everybody progresses through treatment programs in the same way.

People can stop turning up or get kicked out of residential programs, relapse, turn up again – sometimes seeking support for a different drug than the last time. Recognition of the range of problems substance users face requires us to look at what happens in treatment to work out how it works and [for whom](#).

## Why doesn't it work for so many?

Cognitive impairment is one issue where we need to change tack in order to help someone off drugs.

Cognitive impairment is an umbrella term used to refer to the impacts of acquired or traumatic brain injury, intellectual disability or foetal [alcohol spectrum disorder](#).

Our [prevalence study](#) found 52% of people in participating residential programs had a cognitive impairment, and for 12% of them it was a serious impairment. [Other studies](#) have found up to 80% of people in treatment programs had cognitive impairments.



Credit: Piyapong Sayduang from Pexels

This means at least half the people in substance treatment programs will experience difficulty understanding, remembering and applying information about drug and alcohol misuse to their own situation. The usual treatment methods [will not work](#) for them and [many drop out](#).

Substance problems and cognitive impairment are often connected. People with intellectual disability can have a low tolerance to drugs and take too much medication [too often](#). [A study](#) of adults with foetal alcohol spectrum disorder found 35% have alcohol and drug problems compared to 4% of the general population.

A cognitive impairment can be acquired via a brain injury. Many people with substance problems report a history of head injuries, with an average of six to eight blows to the head during their life time. Heavy and long-term alcohol and drug use can have the [same effect](#).

Cognitive impairments are a hidden disability. They usually affect invisible processes such as thinking and behaviour, concentration, memory and self-control. People with impairments can be impulsive, not learn from their mistakes and have trouble problem solving.

Cognitive impairments interfere with the learning and using of new information and, in turn, are related to poorer response to treatment, [higher drop out rates](#) and worse [long-term outcomes](#).

But knowing this has not changed how we treat people with substance misuse. It continues to be organised and delivered in ways that do not take account of participant's cognitive abilities.

[Our study](#) also found our multidisciplinary team did not know how to recognise or respond to cognitive impairments. None of our treatment staff, including nurses, counsellors and community service workers, had ever had training at university or afterwards in cognitive functioning.

## **What needs to happen?**

There are simple ways we can change substance treatment programs to be more inclusive of people with cognitive impairments. First, [brief cognitive screens](#) that require minimal training to use can give an indication of [cognitive functioning](#). We can combine this with structured interviews asking about head injuries, school experiences and parental alcohol use.

Second, making treatment staff aware of prevalence rates of [cognitive](#)

[impairment](#) and the impact it can have on treatment participation can make a big difference to the way people are responded to. For example, instead of interpreting not turning up to an appointment as a reluctance to change, it can be thought of as a memory problem.

Treatment strategies include encouraging people to keep lists, practice concentrating with games such as Guess Who, or use other formal thinking and planning tools [designed to help with cognitive problems](#).

The content and delivery of our treatment programs now use practical demonstrations and concrete examples before theoretical concepts. Programs provide opportunities to role-play and practise, use simple written material to support spoken information, and use many repetitions of information and activities.

Substance problems are common, and [hard to get rid of](#). As we learn more about the needs of people with cognitive impairments in substance treatment, we can make services more inclusive and effective than in the past.

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