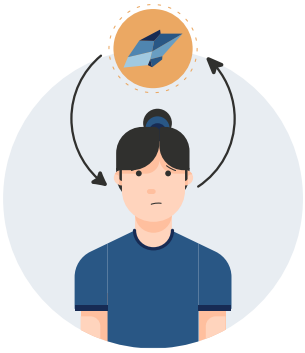
Methamphetamine and Psychosis: Factsheet for Health Workers

Summary

- Methamphetamine-associated psychosis (MAP) is an acute, transient state of psychosis that can occur with (often heavy and regular) use of methamphetamine.
- Symptoms of MAP can include paranoia, hallucinations, muddled thinking, hostility, aggression, depression, and anxiety.
- The duration of MAP symptoms can vary, lasting from a few hours to a few days, and in a small number of cases, may persist even after stopping methamphetamine use.
- Risk factors for MAP include methamphetamine dependence, high dosage and frequency of use, polydrug use, genetic predisposition, and other factors associated with heavy use.
- Treatment for MAP involves managing the underlying methamphetamine use and may include the use of sedatives or antipsychotic medications to minimise acute symptoms.
- Health workers can provide ongoing support by educating individuals about MAP, assisting with treatment and rehabilitation, offering psychosocial support, and addressing co-occurring disorders and physical health issues.

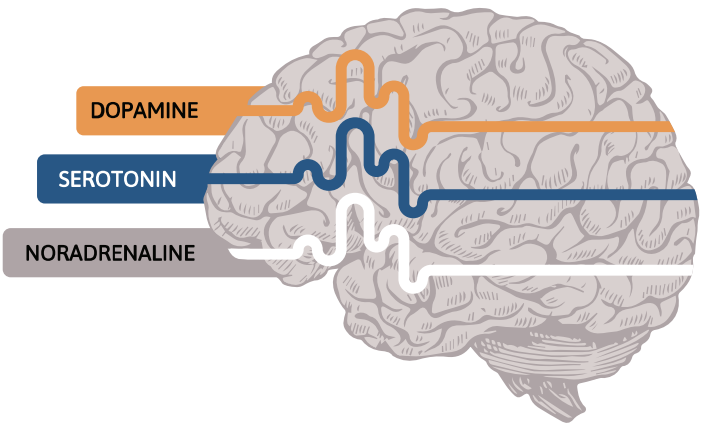


What is methamphetamine-associated psychosis?

Methamphetamine-associated psychosis (MAP) is an acute state of transient psychosis which typically lasts less than 24 hours but can extend over a few days. MAP is common with heavy and regular use of methamphetamine (including crystal methamphetamine). People who use methamphetamine are more likely to experience psychosis than the general population. People who use methamphetamine more frequently, or who have a diagnosis of methamphetamine-use disorder are most likely to experience psychotic symptoms. This factsheet will discuss the causes and symptoms of MAP, as well as considerations for health workers.

What are the causes and features of methamphetamine-associated psychosis (MAP)?

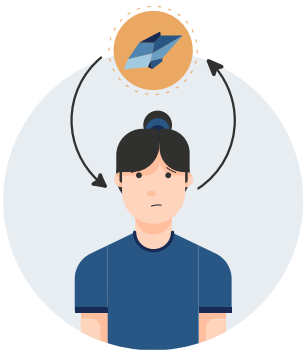
The relationship between methamphetamine and psychosis still requires further research. Methamphetamine acts on the brain's monoamine pathways, affecting neurotransmitters dopamine, serotonin, and noradrenaline (Refer to Ice and the Brain factsheet).



The stress-vulnerability model suggests that some people will have a genetic predisposition to developing psychosis which is triggered by methamphetamine use. Individuals with familial risk for substance abuse, and familial risk for psychosis are more likely to experience substance induced psychosis. Regular methamphetamine use or dependence are frequently cited risk factors for developing psychosis, however individual responses can vary, thus supporting the stress-vulnerability model for MAP.

Risk Factors

There are also some factors associated with increased risk of MAP, such as:



Methamphetamine dependence
Primary risk factor of MAP

High dosage & high frequency of use
e.g., high blood concentration of methamphetamine

Polydrug use
e.g., use of alcohol or cannabis at the same time

Younger onset of methamphetamine use
has been associated with higher risk

Genetic predisposition or a family history
of psychosis, bipolar disorder, or schizophrenia

Other factors associated with heavy use
(e.g., sleep deprivation, history of trauma)

*From Arunogiri et al., 2018, Arunogiri et al., 2020, & McKetin, 2013a.

What are the symptoms of methamphetamine-associated psychosis?

Symptoms can vary in intensity and duration. Not all symptoms need to be present for MAP to occur. **Symptoms include:**

- Paranoia, feeling suspicious or persecutory ideation
- Hallucinations
- Muddled thoughts or incoherent speech
- Being hostile or increased aggression
- Depression or anxiety

How long does methamphetamine-associated psychosis last?

Symptoms can last a few hours or up to a few days and will often cease after stopping use or following withdrawal from methamphetamine. A small number of people may find these symptoms last much longer (e.g. more than a few weeks) or continue even when a person is not using. Recent research suggests that most cases of MAP that present to hospital are able to be treated and were largely resolved within 24 hours without any need for further treatment.

Treatment and support

What should you do if someone is experiencing methamphetamine-associated psychosis?

MAP causing distress and functional disturbance needs to be addressed by medical services to minimise harm to the person experiencing MAP and others.

Persons intoxicated with methamphetamine are in a highly aroused state. When coupled with paranoia, they can feel easily threatened. This can be associated with an increased risk of aggressive behaviour. Depending on the level of psychosis someone is experiencing, they may or may not know that they need help. Seeking clinical support (e.g. mental health crisis team) can help manage the situation.

Screening

MAP symptoms are often mild and transient, and not every symptom will always be present or observable. If an individual is experiencing distress, opening the discussion around what they are going through can be useful for both the individual and the health worker.

When communicating with someone experiencing MAP, consider:

- That they may not be aware of what is happening to them
- Start with finding common ground – build up to more specific questions
- Let them guide the pace and style of interaction (when reasonable)
- Avoid the term 'psychosis' and instead ask about changes in their thoughts, feelings or behaviour. How long have these changes been present? Are they finding them distressing?
- Acknowledge that this experience would be stressful, and that seeking help takes a lot of courage

If an individual is experiencing active psychosis, symptoms such as disorganised thought or speech patterns may mean that observation is more helpful in identifying symptoms. For example:

- Are they having conversations with someone who isn't in the room?
- Are they responding abnormally to things in the environment?

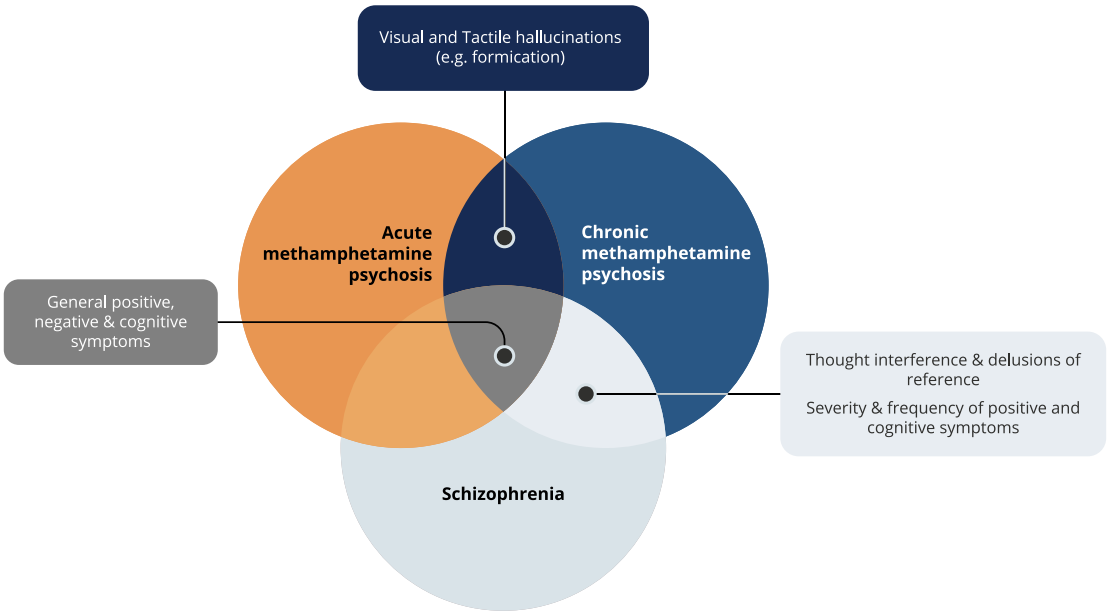


Figure 1. Adapted from Wearne and Cornish, 2018.

The figure above shows some of the unique and shared symptomology of different forms of psychosis.

Treatment

Guidelines for managing acute episodes of psychotic symptoms typically include the use of sedatives or antipsychotic medications. These have been shown to help minimise acute symptoms of psychosis, while still allowing for monitoring and further assessment.

Treatment should involve a focus on managing the underlying methamphetamine use. Any reduction in methamphetamine use will be a reduction in risk for experiencing further psychotic episodes. Behavioural treatment for methamphetamine dependence is arguably the most optimal approach for reducing psychosis in persons who use methamphetamine.

Other considerations should be around **language and environment**:

Language

The words and tone you use are important in managing an episode of methamphetamine-induced psychosis. Try to:

- Use clear, non-judgemental, and supportive language
- Avoid overly clinical terminology
- Offer explanations on what is happening
- Use a confident and calm tone
- Listen attentively and engage with the individual
- Treat them with kindness and respect
- Use neutral body language (e.g. keeping your hands visible, and arms by your sides)
- Avoid arguing or agreeing with any unusual beliefs

Environment

Adapting the setting in which you provide treatment can minimise any risks of escalation and allow the best-possible outcomes for someone experiencing MAP and others.

Considerations include:

- A space that is private, quiet, safe, and free from distractions
- Staying in well-lit areas
- Giving the individual plenty of personal space
- Avoiding sudden movements
- Consider the available exits and access to support in the space. If there is only one exit, position yourself closest to it
- Have an exit plan in mind in case the situation escalates
- Removing any items that could be a danger to the individual or others

How can health workers provide ongoing support?

As MAP is highly related to current and ongoing methamphetamine usage, assisting in the reduction or cessation of methamphetamine use is key to reducing chances of psychosis. For most people, once they stop using methamphetamine, any psychosis related symptoms stop. Health workers can use this opportunity to inform the patient of ongoing risks and support them in biopsychosocial treatment for methamphetamine use and dependence.

- Health workers can provide support by educating the individual in:
- Recognising the warning signs of psychotic symptoms (such as feeling more anxious or paranoid than usual or seeing/ hearing strange things).
- Treatment or rehabilitation support – providing advice about structured programs, or cessation advice
- Psychosocial support such as peer support groups or counselling
- Management of co-occurring disorders such as depression and anxiety, as these may increase chance of relapse to methamphetamine use
- Monitoring and managing physical health issues related to methamphetamine use
- Minimising social stressors (such as housing, finances, legal problems, or social support) and accessing services that may be able to assist in these areas

Further resources

NDARC's Ice Psychosis Factsheet

Cracks in the Ice: Managing a client with symptoms of psychosis

Comorbidity Guidelines: Managing symptoms of psychosis

SA Health: Management of acute presentations related to methamphetamine use (clinical guidelines)

Turning Point: Methamphetamine Treatment Guidelines

Mental Health First Aid: Psychosis Guidelines

Key sources

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