



NDIS Quality
and Safeguards
Commission



Interventions reducing inappropriate use of psychotropic medications in people with neurodevelopmental disabilities

June 2025

Evidence Summary



This is a summary of the research review Interventions to reduce inappropriate prescribing and administration of psychotropic medications for people with neurodevelopmental disabilities^{*}.

Why did we do the review?

Psychotropic medications can be important in treating mental disorders, or physical illnesses and are also often prescribed to manage behaviours of concern in people with disabilities.^{1,2}

However, two Royal Commissions (The Royal Commission into Aged Care Quality and Safety and the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability) have found that psychotropic medications are being misused or overused in older people and people with disability.³

The NDIS Commission recognises the importance of reducing the inappropriate use of psychotropic medication because:

- ◆ There is evidence that psychotropic medications are overprescribed and overused in older people and people with disability.^{1,2}
- ◆ There is limited evidence to show psychotropic medications are effective to manage behaviours of concern.^{4,5}
- ◆ There is evidence that psychotropic medications can increase the risk of falls

^{*} <https://onlinelibrary.wiley.com/share/author/FEIFYKDFHDEBCPRSM7DH?target=10.1111/jar.70046>

and other physical issues such as weight gain, hypertension, diabetes.⁶

- ◆ There is evidence that psychotropic medications can negatively impact wellbeing and quality of life.^{7,8,9}

We did this review to:

- ◆ understand which interventions can reduce the inappropriate use of psychotropic medication
- ◆ understand if reducing psychotropic medications causes negative effects.

How did we do the review?

Our researchers searched research databases to find studies on interventions used with organisations or services to reduce prescribing and administration of psychotropic medications in people with neurodevelopmental disabilities. A full list of interventions we searched for, and the descriptions can be found in the Appendix.

We included research on people with neurodevelopmental disability in any setting such as nursing homes, residential homes, forensic settings, disability services and schools.

We used a statistical technique called meta-analysis. This technique allows us to combine the results of different studies and understand if there are effects or relationships across the results of multiple studies.

Intervention

In this review, an intervention is a method or strategy an organisation might use to reduce the use of psychotropic medications. Descriptions of different interventions we found are in the appendix below.

Behaviours of concern

Behaviours of concern, also known as ‘challenging behaviours’, are defined as behaviours of such intensity that they can cause harm or affect the quality of life of the person displaying the behaviour, or the people around them.^{1,5,10}

Neurodevelopmental disability

In this review, ‘neurodevelopmental disability’ included: Autism Spectrum Disorder, Attention-Deficit/Hyperactivity Disorder, Global Developmental Delay, Developmental Coordination Disorder, and Stereotypic Movement Disorder.

Psychotropic medication


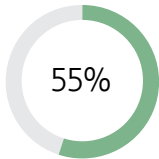

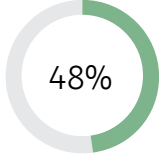

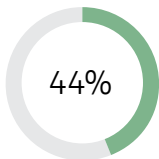

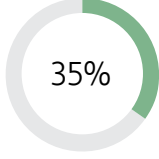
Are any drug that can affect how we think, feel and act.¹¹

Our findings

Finding 1:

What interventions are effective to reduce the inappropriate use of psychotropic medication?

We found fourteen studies suitable for our research. All interventions significantly reduced psychotropic medication use by at least 35%. The table below describes the four interventions identified in the studies.

Intervention	Description	Number of Studies Found	Psychotropic Reduction Percentage
 Medication review	Health professionals working together to review and reduce medications.	7	 55%
 Workplace training	Training that focused on subjects like medication, incident reporting, behavioural support, and crisis management strategies.	2	 48%
 Organisational guidelines and policies	Guidelines and policies such as using restrictive practices as a last resort and the recording and auditing of psychotropic use data.	1	 44%
 Multi-component strategies	Two or more of the strategies listed above.	4	 35%

Finding 2:

What are the negative effects of psychotropic medication reduction?

There was limited data on whether any negative effects such as behaviours of concern or restrictive practices occurred following medication reduction or whether people remained off medications long-term.

Only two studies reported negative effects of psychotropic medication reduction.^{12,13} One study on multi-component strategies showed a 21% increase in psychotropic medication use following the intervention.¹³ Another study on medication reviews found that a year after the intervention, 75% of participants had returned to the same or a higher dose of psychotropic medication.¹²

What do the findings mean?

Our research provides evidence that medication reviews, workplace training, organisational guidelines and policies, and multi-component intervention strategies can decrease prescribing and administration of psychotropic medications in people with neurodevelopmental disabilities.

The research also suggests decisions about psychotropic medication use should include a diverse range of people including people with disability themselves, their medical practitioners, pharmacists, allied health professionals, nurses, behaviour support practitioner, disability support workers and family to ensure the best outcomes.

However, it can be challenging to reduce psychotropic medication as people tend to focus on the positive effects of its use and the convenience in managing behaviours of concerns but not the negative effects it can have on someone. People with disability

and those who will work with them may also be reluctant to discontinue psychotropic medication due to concerns that a person's behaviour will become more problematic or experience withdrawal from the medication. While we found no evidence that behaviours of concern and restrictive practices increased after the reduction of psychotropics, there were very few studies that reported these data. Therefore, we cannot conclude whether these were increased or decreased.

The findings from the research should be taken with care as there were no high-quality studies, limiting confidence in the findings. This means more high-quality research is needed to better understand what makes an intervention effective, including having a standard way to measure the long-term impact of interventions. More research is also needed to learn more about the reasons why psychotropic medications are used inappropriately.

Appendix

Interventions

- ◆ **Organisational Interventions** – actions and strategies implemented by an organisation to decrease the use of psychotropic medications. This may include policy changes, staff training, regular medication reviews, and promoting non-medication alternatives to manage behaviours of concern.
- ◆ **Debriefing and Review with Staff or Person With a Disability, or Both** – identifying and reviewing factors associated with the use of psychotropic medications and learning to prevent them.
- ◆ **Use of Data to Inform Best Practice** – collecting and reporting data on occurrences of behaviours of concern and the use of psychotropic medications and measuring the progress and effectiveness of strategies aimed at their reduction.
- ◆ **Workforce Training and Education** – teaches staff to use preventative strategies for managing behaviours of concern, reducing the need for psychotropic medication.
- ◆ **Mentoring and Professional Supervision** – an experienced worker helps new staff to learn the skill to prevent behaviours of concern and manage the use of psychotropic medication.
- ◆ **Embedded Specialist Services** – availability of specialists in understanding and responding to a person's behaviours of concern within the organisation.
- ◆ **Improved Environmental Factors** – altering surroundings to improve clinical outcomes, reduce reliance on psychotropic medication, and enhance overall quality of care.
- ◆ **Organisational Guidelines and Policies** – development of clear guidelines and policies for the use of psychotropic medication and managing behaviours of concern which helps staff understand and apply strategies the organisation has put in place to reduce these practices.
- ◆ **Multi-Component Strategies** – a suite of organisational strategies to help reduce the use of psychotropic medication.
- ◆ **Deprescribing Strategies** – helps identify factors associated with the use of psychotropic medication and aims to prevent these incidents in the future.
- ◆ **Medication Reviews** – evaluating a person's current medications to ensure they are appropriate, effective, and safe, with the goal of reducing inappropriate use of medications.

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