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What Works

Residential Rehabilitation for Alcohol
and Other Drug Treatment



360edge.

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In brief

Residential rehabilitation is a key treatment setting for people seeking help for alcohol and other drug related issues.

Residential rehabilitation services can differ greatly in terms of length of treatment and model of care.

We undertook an extensive review of research published between 2000 and 2023 that examined the effectiveness of residential rehabilitation, including therapeutic communities.

The quality of the research and the outcome measures reported varied greatly and the wide variety of elements in residential programs make strong conclusions difficult.

Nevertheless, our review found:

- Low to moderate quality evidence that residential rehabilitation is effective in reducing alcohol and other drug use, decreasing the risk of criminal behaviour and improving mental health outcomes
- There is no evidence that one type of residential rehabilitation that is more effective than another
- Some evidence that residential treatment is more effective than other treatment types for people who inject drugs

- Limited evidence for effectiveness of adjunct treatments, such as vocational education, in a residential rehabilitation setting
- High relapse rates, emphasising the importance of aftercare programs, which improve long term outcomes
- Evidence that individual counselling is an important component of residential programs, with both general and alcohol and other drug specific counselling being effective
- Family oriented treatment may result in better outcomes.

We found that both treatment length and treatment completion are important in achieving positive outcomes.

There are considerable gaps in the research for specific populations. There was a small body of research involving women, Aboriginal and Torres Strait Islander Peoples and young adults. We were unable to identify research that investigated outcomes for people with acquired brain injury, low literacy, who identify as LGBTQIA+, or are from culturally and linguistically diverse backgrounds.



Contents

In brief	i
01 Residential rehabilitation	1
Who accesses residential rehabilitation?	1
Models of residential rehabilitation.....	2
Treatment approaches	3
02 Measuring effectiveness	5
Randomised controlled trials	5
Quasi experimental studies.....	5
Cohort studies	5
Impact of study design	6
03 What is effective	7
The effectiveness of residential rehabilitation.....	7
The effectiveness of therapeutic communities.....	9
Length of stay, treatment retention and continuing care	10
Adjunct treatments in residential rehabilitation	11
04 People with specific needs	12
Women.....	12
Aboriginal and Torres Strait Islander people.....	13
People with co-occurring mental health issues	15
Young people.....	16
People in prisons.....	17
Other people with specific needs.....	18
References	19

01 Residential rehabilitation

Residential rehabilitation is one among a suite of options available for people seeking treatment for alcohol and other drug issues.

It provides the opportunity for people to live in a safe and stable environment while they concentrate on their personal goals.

Residential rehabilitation is not a treatment in itself; it is a setting where a range of services and interventions are delivered.⁽¹⁾

It provides accommodation and a structured therapeutic program that typically includes a combination of individual counselling, group work, peer support and support for community reengagement.⁽²⁾

For the current evidence check, we have examined the last two decades of research on the effectiveness of residential rehabilitation for treating alcohol and other drug issues.

Who accesses residential rehabilitation?

Residential rehabilitation is usually sought by and provided to people who have tried a number of other treatment types with limited success.

It is generally offered to those who are not well suited to outpatient or community based programs, including people whose housing or social determinants put them at greater risk of relapse.

Residential rehabilitation is suitable for people who have more severe or complex issues related to their alcohol or other drug use, including moderate to severe dependence.

People who are at risk of more severe harm associated with their alcohol and other drug use, such as those with criminal histories, child protection issues and those who are experiencing significant social, health and economic disadvantage, may also benefit from residential rehabilitation. Significant disadvantage can include homelessness, mental health issues, complex trauma histories and joblessness.

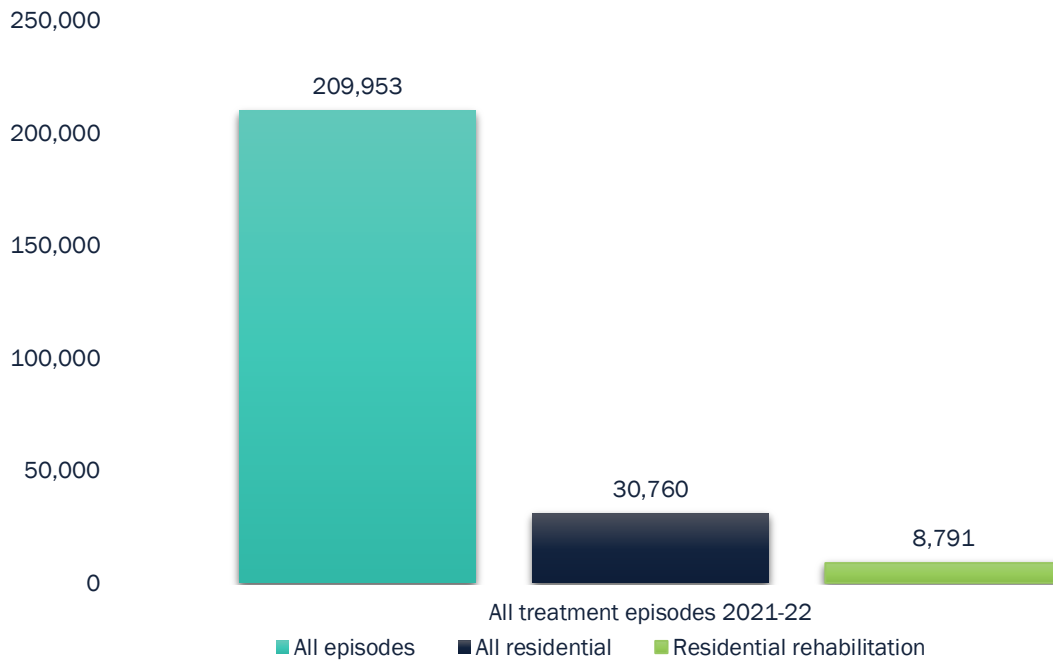
During 2021 to 2022 in Australia, approximately 14% of all closed treatment episodes for a person's own drug use were provided at residential treatment facilities.⁽³⁾

Of all residential services delivered, 28.5% were classified as residential rehabilitation, with the remainder split between assessment only, withdrawal management and 'other' (see Figure 1).

Overall, residential rehabilitation comprised 4% of all services provided by reporting public alcohol and other drug treatment agencies in 2021 to 2022.

In Australia, residential rehabilitation providers are diverse with respect to treatment approaches, models of care, service level factors and client needs.⁽⁴⁾

Figure 1: Residential rehabilitation as a component of all alcohol and other drug treatment delivered in Australia 2021–2022.



Models of residential rehabilitation

Residential rehabilitation programs are diverse, with varying lengths of stay (see Figure 2) and treatment approaches.

Length of stay

Short stay

Short stay residential rehabilitation programs generally run for a duration of twelve weeks or less.

Some of these programs can be as short as two weeks and offer low intensity programs designed for people with less complex histories, current employment, stable housing and family or community support to resume their lives at the completion of the program.

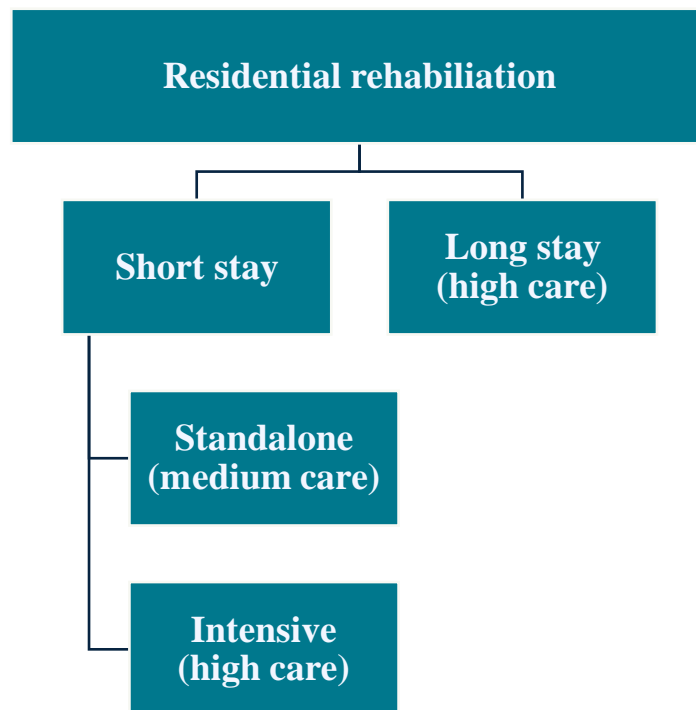
Other programs provide more intensive medical and therapeutic interventions over a two or three month period. These tend to be aimed at people with more complex treatment needs who require a more structured program and longer accommodation.

Short stay residential rehabilitation programs are typically followed by ongoing outpatient care.

Long stay

Long stay residential rehabilitation refers to programs of six months or longer. People who attend long stay programs tend to have a long and complex history of more severe alcohol and other drug dependence, dependence involving multiple substances, or have previously engaged in treatment on several occasions.

Figure 2: Types of residential rehabilitation by length of stay.



Treatment approaches

Residential rehabilitation services can be based on a number of different treatment philosophies or approaches. For example, residential services may offer cognitive behavioural therapy based programs, 12-step programs, therapeutic communities (see below) or a combination of these models of care.

Therapeutic work may be provided as one to one counselling or group therapy. Adjunct programs may also be offered, such as parenting programs, life skills or employment training, or education programs.⁽⁵⁾

Residential rehabilitation services can vary widely:⁽⁵⁾

- Services can accommodate specific groups such as men only, women only, women with children, family inclusive, Aboriginal and Torres Strait Islander peoples, or young people
- Models of care may address alcohol and other drug use only or respond to co-occurring alcohol and other drug and mental health issues

- Services may offer alcohol and other drug withdrawal services, but the way withdrawal services are provided may differ
- Residential services may offer supported or transitional accommodation in the later stages of the program or post discharge

Therapeutic communities

Therapeutic communities differ from other approaches to residential rehabilitation in that the emphasis is on the 'community as method' for effecting change in people's lives. This means that community as method model is seen as the primary vehicle of change.

Therapeutic communities were originally developed as an alternative to psychiatric inpatient rehabilitation, which relied heavily on the medical model, by establishing a mutual self help community.⁽⁶⁾

Historically, therapeutic community programs did not allow people to use any type of medication and were run exclusively by peers who were also recovering from

alcohol and other drug dependence, relying on the community as a whole to assist in people's rehabilitation.

People in traditional therapeutic communities are actively involved in providing peer support to others in the community and are involved in all decisions regarding the program.

Therapeutic communities encourage people to examine and reflect on their behaviours and to employ 'right living', which is considered to be based on the virtues of honesty, hard work, willingness to learn, and willingness to take responsibility.⁽⁷⁾

The therapeutic community model is applied by staff and residents. It is designed to be both the forum and catalyst for alcohol and other drug use behaviour change.

Therapeutic communities have undergone some important changes since their inception in the late 1950s. While many modern therapeutic communities retain this core ethos, many now combine participation in the community with comprehensive

medical support, including medication and psychiatric intervention.⁽⁷⁾ These are called modified therapeutic communities.

Modified therapeutic communities may also add programs that accommodate people's mental health needs, such as more individualised treatment, shorter sessions, less confrontational therapeutic styles, fewer sanctions, and greater encouragement for individual achievements (see *People with co-occurring mental health issues.*)

Contemporary approaches generally include a multidisciplinary workforce made up of peers, medical and allied health professionals and staff with counselling qualifications. People are still expected to provide mentoring, support and mutual aid to each other.

Generally, as people progress through the program stages they take on more responsibility in the community, potentially taking on leadership and staff roles when they reach an appropriately advanced stage in their own recovery.



02 Measuring effectiveness

Different research methodologies have different inherent limitations when it comes to understanding whether a treatment or program is effective. In addition, how well a particular methodology is executed impacts outcomes. These factors impact on how confidently effectiveness can be established.

Randomised controlled trials

Randomised controlled trials are considered the gold standard in intervention trials because they reduce the risk of bias and can establish cause and effect between an intervention and outcomes.

For example, people entering a traditional therapeutic community may be randomly assigned to receive individual counselling (intervention) or no individual counselling (control) to establish whether individual counselling adds benefit to a therapeutic community.

But this design is hard to implement in residential treatment settings as it is difficult, and in some cases may be unethical, to randomly allocate someone to one service type over another. And it is much harder to control the application of psychological therapy because each practitioner may have a slightly different way of delivering treatment. Often, selection of the participants is rigorous to simulate as close to ideal conditions as possible.

People are randomly assigned to either an intervention or a comparison (control) group. The closer to true randomisation, the less bias influences the results. Contact between the control group and the intervention group can also influence results. People's knowledge of which group they have been assigned to can lead to a placebo or nocebo effect.

Due to the difficulty with conducting randomised controlled trials, few high quality studies are available to answer questions about the effectiveness of residential rehabilitation.

Quasi experimental studies

Quasi experimental studies are, in some ways, more feasible in a treatment setting. While not as strong as a randomised controlled trial, this design is still able to compare an intervention to a control group. People are not randomised to a group.

Quasi experimental studies identify a comparison group that has similar key characteristics to the treatment or intervention group and evaluates the outcomes of the two groups.

For example, instead of randomly assigning people to groups, people who attend individual counselling (intervention) are compared with people who did not (control). This introduces bias as there may be something different about people who chose individual counselling compared to those who didn't, such as level of motivation.

Cohort studies

Cohort studies do not assign people to groups at all. They describe outcomes of a particular group of people (a cohort).

A cohort study follows what is often a large group of research subjects over a long period of time, sometimes years or even decades. This type of longitudinal study method recruits people with similar characteristics (a cohort), such as those of similar age, gender, type and length of drug use. It assesses the impact of an issue of interest to the researchers (a variable), such as outcomes from a particular type of

treatment, or compares behaviours between groups over a period of time.

For example, outcomes of people in a therapeutic community that participated in individual counselling are looked at over a period of time to see if there are changes.

A very important cohort study was conducted by British researchers Doll and Hill¹ in the 1940s that was the first to show a link between cigarette smoking, lung cancer, and increased mortality among a large cohort of medical doctors.

Cohort studies are often used in the early stages of research to see if there is an association worth investigating further.

Impact of study design

All research designs aim to answer one or more questions and tell a story based on the findings.

Which outcomes are measured vary greatly across studies, reflecting the value researchers place on the outcomes and the

relevance to the program studied. Typical outcome measures reported in the alcohol and other drug treatment literature include duration of abstinence posttreatment, relapse rates, and psychosocial and mental health outcomes.

Research into alcohol and other drug treatment also suffers from high rates of participant attrition. A large number of participants in treatment settings either drop out of the treatment under investigation or are unable to be contacted following treatment. The high rates of attrition limits an accurate assessment of outcomes for people who did not receive treatment or could not be contacted for follow up.

All these limitations may make it difficult to make strong conclusions about outcomes. When there is a small number of studies, it is even more difficult.

Despite the limitations of the available body of evidence, a review of the research provides valuable insights to inform future directions for alcohol and other drug research and treatment.

¹ Doll R, Hill AB. Smoking and carcinoma of the lung; preliminary report. Br Med J. 1950 Sep 30;2(4682):739-48. doi: 10.1136/bmj.2.4682.739.

03 What is effective

The effectiveness of residential rehabilitation

The key takeaways:

- Residential rehabilitation is associated with a number of positive outcomes
- Continuing care following completion of residential rehabilitation is a key facilitator for sustaining positive outcomes
- Longer treatment admissions, strong rapport with counsellors and individual counselling are important elements of residential rehabilitation for people who use methamphetamine
- Residential rehabilitation can lead to better outcomes for people who use injected drugs compared with other treatment options
- Residential rehabilitation may be more effective in promoting abstinence from alcohol compared with community programs, which may be more suitable for those wishing to control their use

A key challenge in determining the effectiveness of residential rehabilitation is the wide variety of programs delivered to diverse cohorts in residential treatment settings.⁽⁸⁾

As a result, most studies show low to moderate confidence in effectiveness, but some evidence of effectiveness has been shown across a number of different measures. These include reducing alcohol and other drug use, stabilising mental health symptoms, and reducing criminal activity, among other psychosocial outcomes.

Two systematic reviews on residential rehabilitation found mixed results.

One found that participating in residential rehabilitation reduced criminal activity and

alcohol and other drug use and severity among people using methamphetamine compared to those receiving outpatient services.⁽¹⁾ Mental health symptoms, quality of life, and social functioning may also be improved when compared with people who participated treatment in the community. However, some studies outlined in the review found no significant differences between residential and outpatient treatment on a range of indicators.

The other review found that most studies reported improvements across drug use measures and mental health symptoms, noting that continuing care is an important treatment element in supporting ongoing outcomes.⁽⁹⁾

Across both multiple study reviews, the design quality varied widely, making it difficult to draw definitive conclusions.

However, the findings from these reviews do broadly demonstrate that residential rehabilitation can result in positive outcomes.

Residential rehabilitation for methamphetamine use

A study published in 2012⁽⁴⁰⁾ looked at the outcomes of an intensive residential rehabilitation program that included behavioural treatment, recreational activities, social and community living skills, group work, and relapse prevention. It found that the program resulted in significantly higher levels of abstinence from methamphetamine at three months post discharge, compared to no effect from withdrawal therapy only.

However, these improvements reduced after one year, and by three years, outcomes were not much better than people who received no treatment. This suggests that the greatest impact of residential rehabilitation was in

the early period following program completion.

A 2018⁽¹¹⁾ follow up of the 2012 study, found that longer treatment duration, developing strong rapport with counsellors, and receiving individual counselling were key contributors to continuing abstinence from methamphetamine. The following strategies were offered to promote these factors.

For people who leave residential rehabilitation early, offering an opportunity to engage in ongoing counselling enables them to continue participating in some form of treatment.

Reducing wait times and involving families and a significant other in the treatment process can help to bolster retention, as can ensuring residential rehabilitation services are appropriately matched to individual needs. This can be achieved by ensuring people understand the model of care and have aligned their treatment goals and expectations prior to entry.

Developing clinicians' rapport building skills and confidence in managing methamphetamine related presentations through training, prioritising a person centred approach, and seeking feedback from people receiving treatment can improve the therapeutic relationship.

People attending residential rehabilitation for methamphetamine treatment should receive individual counselling. Counselling for matters not directly related to drug use were found to be just as effective for maintaining abstinence as counselling that focused primarily on drug use. Offering a more holistic care, that includes addressing co-occurring mental health issues, unemployment, unstable housing, and family problems through counselling, can improve treatment outcomes.

Residential rehabilitation for injecting drug use

Residential rehabilitation may be preferable to other forms of treatment for people who use drugs via injection.^(12, 13)

For people who use heroin, two studies found significantly higher rates of abstinence⁽¹²⁾ and reduced heroin

dependence, other drug use, needle sharing, injection related health problems, criminal activity, as well as improved physical health⁽¹³⁾ for people participating in residential rehabilitation, compared to a range of other treatments, including maintenance therapy, community based counselling services, and withdrawal therapy.

While neither study detailed the elements of residential rehabilitation that enhanced effectiveness, both found that residential rehabilitation resulted in significantly better outcomes compared with other treatments.

Family oriented residential rehabilitation for alcohol use

One study found that participating in a family oriented residential rehabilitation program for alcohol use produced higher rates of abstinence than a community outpatient program.⁽¹⁴⁾

The two programs reviewed involved group therapy, family therapy, psychoeducation, bibliotherapy, problem solving therapy, peer support and self help elements.

The residential program ran for six weeks and was followed by a two year aftercare program. The community program ran for ten weeks.

People followed up six months post residential program, were significantly more likely than those who participated in the community group to be abstinent and less likely to experience negative consequences of drinking or psychological adjustment problems. Noting that people in the community group were more likely to be moderate drinkers.

Residential rehabilitation may therefore be more effective in promoting abstinence from alcohol and improving health outcomes than community programs, which may be more suitable if controlled drinking rather than abstinence is the goal.

Residential rehabilitation may have benefit over community programs by offering respite from environments that reinforce their alcohol consumption and providing a more intensive treatment experience. The two year aftercare program following the residential

rehabilitation program reiterates the importance of post discharge care.

The impacts of residential rehabilitation compared with an intensive day hospital program

One study looking at the effects of residential rehabilitation compared to an intensive day hospital program found they had similar outcomes.⁽¹⁵⁾

People participated in the community residential program for up to two months, which included 12-step groups, recreation and meditation activities and daily living chores.

People attended the hospital day program daily for three to five hour group sessions over two to three weeks, focusing on the biological, psychological and social aspects of alcohol and other drug dependence, and attendance at external 12-step meetings.

Both treatment programs resulted in high rates of abstinence with no significant difference between them.

The study found that longer attendance at a 12-step program following the treatment program was associated with higher rates of abstinence. Although causal direction cannot be determined, but highlights the importance of post treatment support for maintaining abstinence.

The effectiveness of therapeutic communities

The key takeaways:

- Therapeutic communities are associated with positive outcomes, however the evidence about their effectiveness compared to other interventions is inconclusive
- Continuing care is essential to promote ongoing positive outcomes

As is the case for residential rehabilitation, research looking at the effectiveness of therapeutic communities differs greatly in design and outcomes reported.

We identified four systematic reviews directly related to the effectiveness of therapeutic

communities that examined a total of 46 studies.⁽¹⁶⁻¹⁹⁾ The reviews were published between 2006 and 2014.

There were major differences in the quality of these studies, as well as type of program, setting, treatment duration, study population and outcome measures. This makes it difficult to make general statements about the overall effectiveness of therapeutic communities.

Therapeutic communities may reduce alcohol and other drug use and psychological distress, and improve mental health, social engagement and employment outcomes.⁽¹⁶⁻¹⁸⁾

The reviews found that rates of relapse are high among people participating in therapeutic community programs, with one review highlighting the important role of longer treatment exposure and the provision of aftercare in ensuring ongoing positive outcomes.^(16, 18)

Therapeutic communities may be particularly effective for people with high levels of dependence and compounding issues, such as people with mental health problems, or people who are incarcerated or homeless.⁽¹⁸⁾

Therapeutic communities compared with other interventions

In comparison with no treatment or alternative treatment options, the findings are less conclusive.^(17, 19)

This may be in part due to differences in outcome measures and treatment elements, as well as the methodological quality of studies.

There is some low level evidence that, in comparison to methadone maintenance treatment, residential rehabilitation and hospital treatment, participation in therapeutic communities is associated with improved quality of life, mental health and abstinence.^(20, 21)

The psychosocial environment of therapeutic communities that promotes recovery may contribute to this.

Length of stay, treatment retention and aftercare

The key takeaways:

- Longer length of stay is associated with better outcomes but people may also be more likely to leave longer programs early
- Continuing care is integral to sustaining ongoing positive outcomes, especially for people who are at a higher risk of relapse
- Key elements to successful continuing care include self help supports, relapse prevention strategies, behavioural interventions and medications where necessary, ensuring support networks and involving people in planning

Treatment retention and completion is generally associated with better outcomes from alcohol and other drug treatment. However, an ideal length of treatment has not been well established in the literature and may be influenced by individual factors.

Systematic reviews of therapeutic communities have consistently identified that longer lengths of stay are associated with significantly better outcomes, yet completion rates in longer programs are lower.^(16, 18) However, there is some evidence that shorter residential rehabilitation programs can have a sustainable impact on alcohol and other drug use.⁽⁹⁾

There is also some evidence that treatment completion is an important predictor of recovery.⁽⁹⁾

Treatment in therapeutic communities generally runs for six to 12 months, which may increase the possibility of people leaving the program early.⁽¹⁸⁾ People are more likely to leave the program in the early phases of treatment (during the first 15 to 30 days), highlighting the importance of implementing strategies that promote retention during this period.⁽¹⁶⁾

Therapeutic communities may positively impact rates of retention through the involvement of families and social networks, focusing on induction interventions, using

motivational interviewing techniques, and contingency management.⁽¹⁸⁾

People should have a clear understanding of the treatment model, goals and expectations to help them determine whether the type of residential program meets their individual treatment needs, which can in turn improve treatment retention.⁽¹¹⁾

According to one study, length of stay in a modified therapeutic community has been found to be significantly associated with reduced depression, anxiety and stress, and improved life purpose; it was also an independent predictor of improved social, emotional and psychological wellbeing as well as client perceived assessment of recovery.⁽²²⁾

The study found that each 90 day period in treatment was associated with an increased likelihood of improvements, with people who were determined to be 'reliably improved'² having stayed in treatment for an average of four months and two weeks, compared to people who stayed in treatment for just under three months who had not improved.

There is strong evidence that accessing ongoing support after completing a residential rehabilitation program is an essential element in sustaining recovery due to the chronic and relapsing nature of alcohol and other drug dependence.^(9, 11, 14, 15, 18, 23) The best long term outcomes are achieved by ensuring care continues beyond the residential admission.^(18, 23)

People that are at a higher risk of relapse, such as those with limited social support or low motivation early in treatment, may experience a greater benefit from continuing care.⁽²³⁾ An example of a continuing care intervention is demonstrated in a recent Australian study that examined the early results of delivering either 4 sessions or 12 sessions of aftercare via a telephone call centre to people who had completed residential rehabilitation.⁽²⁴⁾

Sessions included a check in on mental health symptoms and counselling related to 'triggers, high risk situations, coping strategies and recovery related activities,'

² The researchers established a 'reliable change' predictor through a series of binomial logistic regressions.

with people being encouraged to plan for potential future high risk situations and to set and reflect on their goals.

Engaging in continuing care was associated with increasing the odds of abstinence and ongoing improvements in recovery, refusal skills, psychological distress, quality of life and physical health. Key elements of continuing care include the availability of self help supports, relapse prevention strategies, behavioural interventions and medications where appropriate, involving family members and support networks, and developing continuing care plans.⁽²³⁾

Continuing care can promote ongoing positive outcomes by reducing the risk of relapse, connecting people with employment and training, and engaging people in pro-social community activities.⁽¹⁸⁾ Aftercare planning processes should be customised to each person's individual needs and post residential situation, and aligned with post care needs. Plans should be regularly reviewed and adapted as appropriate.⁽¹⁸⁾

Adjunct treatments in residential rehabilitation

The key takeaways:

- Substance specific interventions have no additional benefit compared to general alcohol and other drug interventions
- Including a behavioural activation can improve treatment outcomes
- Vocational training can improve outcomes

While our primary focus is on the effectiveness of residential rehabilitation generally, we also reviewed some studies that investigated whether the addition of adjunct treatment elements enhanced outcomes.

One study found that substance specific treatment does not improve outcomes.⁽²⁵⁾ The study found that stimulant specific group content had no impact on treatment outcomes in comparison to general alcohol and other drug content. The researchers noted that treatment should be tailored to individual needs rather than provision of substance specific treatment.

Including behavioural activation³ in residential treatment may increase abstinence after treatment.⁽²⁶⁾ One study found that the addition of the behavioural activation program 'LETS ACT'⁴ to regular residential treatment activities was associated with significantly higher abstinence rates for up to 12 months posttreatment.⁽²⁶⁾

Offering people participating in therapeutic community programs the opportunity to engage in vocational education can improve post residential treatment outcomes.⁽²⁷⁾ One study found that participating in vocational education was associated with higher rates of treatment completion as well as higher rates of employment and lower rates of arrest post treatment.

Providing specialist or targeted adjunct treatment activities in residential rehabilitation can promote sustained positive outcomes beyond reducing alcohol or other drug use.

³ Behavioural activation is CBT approach that promotes understanding of the influence between emotions and behaviours, it can be used independently or as part of broader range of CBT approaches.

⁴ LETS ACT is based on the theoretical foundations of reinforcement theory and behavioural economic models of

alcohol and other drug use. Small group sessions focus on 'the treatment rationale and generating, scheduling, engaging in and recording value driven substance free behaviours that serve to increase daily reinforcement.'

04 People with specific needs

Women

The key takeaways:

- Women experience multiple risk factors and barriers to accessing residential treatment; women only programs may be more appropriate in addressing women's specific needs
- For women with children, the provision of transitional services following residential treatment and including children in the residential program can promote positive outcomes
- For women in prison, gender responsive programs can promote more positive outcomes

The specific needs of women who use alcohol and other drugs has been studied extensively in the treatment literature.⁽²⁸⁾

Women seeking treatment generally have higher rates of mental health issues, more severe clinical profiles and complex presentations, greater risk taking behaviours, pregnancy and childcare needs, and greater social and economic disadvantage.

Women only programs have been developed in an attempt to address some of the issues that act as barriers to participating in residential treatment and limit rates of retention.⁽²⁹⁾

While women have been found to have similar residential rehabilitation treatment completion rates as men, they may be less likely to be referred to residential treatment facilities.⁽³⁰⁾

Barriers to women entering any form of alcohol and other drug treatment include

childcare responsibilities, ability to attend services regularly, financial constraints, stigma, limited social support and co-occurring conditions.⁽³⁰⁾

Women who choose women only programs, including residential rehabilitation, report higher rates of recent physical abuse, psychiatric and medical conditions, lower educational attainment and more severe alcohol and other drug use issues than those in mixed gender programs.⁽³¹⁾

One study found that women with greater support needs may benefit more from women only programs, as they generally offer more appropriate services that are matched to their needs.⁽³¹⁾ In this study, women who participated in women only programs reported better drug use outcomes and were less likely to be arrested in the year following treatment admission.

Women with children

For women with children, residential treatment in combination with community based transitional support services can lead to better outcomes than residential rehabilitation alone or outpatient interventions.

One study found that women who had children in foster care and participated in both residential and transitional care were more likely to progress in their treatment and become reunited with their child sooner.⁽³²⁾

Transitional services are associated with treatment continuity, social reintegration and treatment completion, contributing to

improved treatment progress and reunification with children. This highlights the importance of transitional support as an addition to residential treatment in promoting better outcomes for women and their children.

Although treatment retention is associated with positive outcomes, it can be difficult to retain women in residential rehabilitation.

A study investigating a gender specific, family focused residential program for mothers and their children found that the mean length of stay was 11 months of the planned 12 months, indicating that including children in programs may increase mothers' length of stay.⁽³³⁾

Participating in this program also resulted in improved psychosocial outcomes and attitudes about parenting, and supported children with developmental delays to receive interventions that they may not otherwise have access to.

This highlights the value of gender responsive and family focused residential rehabilitation programs for women with children, who often face significant barriers to accessing treatment.

The researchers noted that while residential rehabilitation provides a foundation for recovery, continuing care following the program is important for sustaining positive outcomes for women and children.

Women in prisons

A high proportion of women in prisons have histories of trauma and abuse; concerns have been raised that the 'highly confrontational' nature of therapeutic community programs in prison settings can lead to adverse consequences for women.⁽³⁴⁾ To address this concern, modified therapeutic communities that take a gender responsive approach have been developed.⁽³⁴⁾

There is growing evidence supporting the effectiveness of gender responsive programs in prison settings. For example, one study found significant differences between a women only, gender responsive treatment

group compared to a standard therapeutic community model in a prison setting.⁽³⁵⁾

The gender responsive treatment program used a cognitive behavioural approach and incorporated mindfulness meditation, experiential therapies (such as art therapy), psychoeducation and relational techniques.

The researchers found that gender responsive treatment resulted in better outcomes, including higher reductions in drug use and reincarceration rates. Women in the gender responsive treatment group voluntarily remained in aftercare treatment for longer than the comparison group, which was associated with better outcomes.

Women in the gender responsive treatment programs were highly invested and satisfied with their treatment. Gender responsive treatment environments were found to be conducive to an increased sense of comfort and safety in women, which is especially important in correctional settings.

Aboriginal and Torres Strait Islander people

The key takeaways:

- Aboriginal and Torres Strait Islander peoples are at a higher risk drug use and experience disproportionate harms
- Residential rehabilitation programs that are owned, designed and implemented by Aboriginal and Torres Strait Islander peoples are integral in ensuring that people receive culturally appropriate and effective treatment
- Embedding cultural activities in programs, having staff with lived experience, and providing continuing care is important in increasing retention and ongoing positive outcomes

While rates of risky drinking have declined to levels similar to the general population, Aboriginal and Torres Strait Islander people are more likely than non Indigenous Australians to have consumed an illicit drug in the past 12 months and smoke daily, and experience disproportionate levels of harms associated with alcohol and other drug use.^(36, 37)

There is limited good quality research into residential rehabilitation outcomes for Aboriginal and Torres Strait Islander people. A systematic review in 2017 found that there were very few published studies.⁽³⁸⁾

The researchers identified a need for standardised data collection systems and more detailed reporting on client characteristics so services can better tailor their approach to people's needs, including Aboriginal people. They also called for further evaluations of residential treatment programs delivered by Aboriginal community controlled organisations in order to improve treatment outcomes.

The importance of Aboriginal Community Controlled Organisations (ACCOs), which are initiated and governed by the local Aboriginal or Torres Strait Islander community, has increasingly gained widespread recognition for providing culturally appropriate services for Aboriginal and Torres Strait Islander people.

Mt Theo

Although no longer in operation, the Mt Theo program received attention for its success in reducing petrol sniffing in Yuendumu, one of the largest Aboriginal communities in Central Australia, which faced a petrol sniffing crisis during the 1990s.

The Mt Theo program was entirely run by Aboriginal people and involved sending affected young people to live on an outstation⁵ for one month to participate in traditional recreational and cultural activities, offering them a safe and supportive environment.⁽³⁹⁾

Living in a remote outstation disrupted the petrol sniffing patterns in the community, provided positive alternatives to petrol sniffing, and effectively eliminated petrol sniffing in the community within nine years.

The program facilitated strong cross cultural partnerships and community cohesion, enabling the program to overcome cultural challenges.

⁵ An outstation is a small, remote community where Aboriginal people live on their traditional lands, maintaining cultural practices, languages and traditional knowledge.

The success of the Mt Theo program demonstrated the importance of residential programs designed, owned and operated by Aboriginal communities.

The Glen

The Glen for Men is a residential rehabilitation program managed by Ngaimpe Aboriginal Corporation.

The Glen program runs for three months and offers people the opportunity to stay in a longer six to 12 month transitional program.

While The Glen accepts both Aboriginal and non Aboriginal men, it is based on Aboriginal values and spirituality. With a focus on strengthening people's connections with Aboriginal culture, the program involves traditional dance, yarning around the fire, didgeridoo lessons and liaison with Aboriginal Elders, alongside daily group sessions, individual counselling and case management.

People are encouraged to attend 12-step meetings and have the opportunity to access educational support and tutoring, employment support, gambling counselling, and grief and trauma counselling, as well as a general practice clinic.

A recent evaluation found positive outcomes.⁽⁴⁰⁾ The evaluation found that Aboriginal people attending The Glen were more likely to complete treatment and report improvements in psychological distress compared with those attending non Aboriginal controlled services, demonstrating the importance of culturally appropriate programs run by ACCOs for Aboriginal people.

The Glen has recently opened The Glen for Women, a women only residential rehabilitation program specifically designed for Aboriginal and Torres Strait Islander women. It also accepts non Aboriginal women.

Improving treatment retention

A recent Australian study examined discharge and readmission patterns across six years in the six residential alcohol and other drug rehabilitation programs run by ACCOs in New South Wales.⁽³⁶⁾

Each program accepts both Indigenous and non-Indigenous people and is designed to align with 'the traditions of the Aboriginal peoples on whose land each program is based'. Each program includes the core components of cultural healing, case management, education and life skills, therapeutic activities, abstinence from alcohol and other drugs, and aftercare planning and support.

The study found that Aboriginal people were more likely to self discharge from the program if amphetamines were their primary drug of concern or if they were referred from the criminal justice system, highlighting the importance of improving person centred approaches that tailored to each person's unique circumstances and needs. It found that Aboriginal people who identified amphetamines as their primary drug of concern were almost eight times as likely to be readmitted within two years than those who did not.

The study did not investigate specific program elements associated with retention and readmission for Aboriginal people. However, other studies offer additional insight into the program elements that work well and areas for improvement.

It has been well established that strengthening connections to culture is integral to recovery in Aboriginal and Torres Strait Islander people. A qualitative study on one of the included programs found that embedding culture into the program positively impacted people's health and wellbeing.⁽⁴¹⁾

The findings from another study on five of the included programs supports this, identifying traditional arts and crafts, hunting and gathering, culturally focused talks, being on country, and spending time with other Aboriginal people as the most frequently engaged in and helpful cultural activities.⁽⁴²⁾

Both studies found that people would prefer to engage in more cultural activities, with the authors of the latter study suggesting that a variety of high quality cultural activities should be consistently offered to all people in treatment, and that improving levels of engagement with Aboriginal Elders and in communities may assist in enhancing the delivery of cultural activities.

In the former study, it was found that having staff with lived experience who identify as Aboriginal helped people to build rapport with staff and develop cultural bonds, promoting trust and safety. The period immediately following treatment is when people are most vulnerable; improvements in continuing care were identified as necessary to reducing rates of relapse and readmission, with people attending the program noting that they were not always aware of what support they could access when they left the program. Staff suggested that referrals to designated workers in the community, as well as including people's families in their transition back into the community, would assist in ongoing recovery.

People with co-occurring mental health issues

The key takeaways:

- The evidence regarding the provision of integrated care residential treatment settings is mixed
- Modified therapeutic communities may facilitate better outcomes
- Continuing care is essential in promoting the sustainability of positive outcomes for people with co-occurring mental health and alcohol and other drug use concerns

The co-occurrence of alcohol and other drug use and mental health issues is high. People with mental health concerns are more likely to smoke daily, drink at risky levels and use illicit drugs.⁽³⁷⁾ Between 70 and 90 per cent of people in alcohol and other drug treatment services in Australia meet diagnostic criteria for at least one mental health disorder and at least a third have multiple co-occurring disorders.⁽⁴³⁾

Integrated care involves combining treatments for co-occurring issues within a single service setting.

The evidence regarding integrated care in residential settings is mixed.

One meta analysis found that integrated care in residential settings may be more effective in reducing alcohol use and improving psychological outcomes; however, the improvements were modest and there was no significant decline in drug use in integrated care settings.⁽⁴⁴⁾

Some studies have found reduced alcohol and other drug use in people attending integrated residential treatment programs, while others have found no difference between an integrated residential program and a standard non residential program.⁽⁴⁵⁾

Integrated residential treatment programs may be well suited to people with housing needs and longer integrated residential programs may produce better outcomes.^(46, 47)

However, it is important to note that the methodological quality of studies investigating integrated residential treatment programs is generally low.^(45, 46)

A modified therapeutic community retains the core elements of a traditional therapeutic community, adding programs that accommodate people's mental health needs. This includes more individualised treatment, shorter sessions, less confrontational therapeutic styles, fewer sanctions, and greater encouragement for individual achievements.

Modified therapeutic communities have been found to promote positive outcomes across different population groups with co-occurring alcohol and other drug use and mental health issues, including people who are homeless or in contact with the criminal justice system.⁽⁴⁸⁾

For people with co-occurring mental health and alcohol and other drug issues, attending outpatient mental health services for at least twelve weeks following a residential treatment admission can improve longer term outcomes. One study found that attending an outpatient program reduced

mental health hospitalisations and levels of use at six months following treatment.⁽⁴⁹⁾

Young people

The key takeaways:

- Modified therapeutic communities for adolescents may result in positive outcomes; individualised person centred care is integral in responding to each person's specific needs
- Therapeutic communities for young people should foster a positive peer culture and provide intensive continuing care
- For young people in contact with the criminal justice system, therapeutic communities may promote positive outcomes, but continuing care is integral in ensuring these are maintained

As of 2019, 26.3% of young people in Australia aged between 15 and 24 had used illicit drugs in the past 12 months and 32.9% had exceeded the single occasion risk of harm for alcohol.⁽³⁷⁾ While the majority of young people will experiment with drugs for a brief period, some will develop problematic patterns of use, which can be a significant contributor to the disruption of cognitive development.^(50, 51) The evidence regarding the effectiveness of residential treatment for young people is mixed and generally of a low methodological quality.⁽⁵¹⁾

The Program for Adolescent Life Management (PALM) is an Australian modified therapeutic community that takes a holistic harm reduction approach, offering up to three months of treatment.^(52, 53) It involves a structured program including life skills training, therapeutic group work, vocational and educational activities, individual counselling, family support, and recreational activities.⁽⁵³⁾

One study of young people attending PALM with alcohol as a primary or secondary drug of concern found significant reductions in alcohol and other drug use and criminal behaviour, and improvements in physical and mental health following treatment.⁽⁵³⁾

Another study of over 3,000 young people who were referred to PALM found that, at

baseline, they reported high rates of polydrug use, suicide attempts, self harm and physical or sexual assault, with young women reporting particularly high rates⁽⁵²⁾

The researchers highlighted the importance of accurately identifying risk factors and taking a person centred approach focusing on the complex needs of young people participating in treatment.

Designing therapeutic communities for young people in a way that fosters a positive peer culture that gives people a sense of belonging can promote therapeutic engagement, reinforce treatment goals, and improve post treatment outcomes.⁽⁵⁴⁾

Continuing care is also important to ensure positive outcomes are sustained for young people who have participated in residential treatment.^(52, 55)

Assertive continuing care, including referrals to services alongside a nominated case manager to attend home visits, assists young people to attend appointments and provides social support, can encourage young people to continue with post treatment care, and contributes to ongoing abstinence.⁽⁵⁵⁾

Young people in the criminal justice system

Phoenix Academy is a nine to 12 month residential therapeutic community program in Los Angeles, specialising in alcohol and other drug treatment for adolescents.⁽⁵⁶⁾ The program involves a structured schedule with an onsite school, community meetings, therapeutic groups, counselling, and recreational and other activities.

An evaluation compared the outcomes of Phoenix Academy with six similar programs that offered some alcohol and other drug treatment services but did not specialise in alcohol and other drug treatment, unlike Phoenix Academy.

Outcomes among young people aged between 13 and 17 years on probation were evaluated. The evaluation found that young people who attended the specialist Phoenix Academy program had significantly better alcohol and other drug use and psychological functioning outcomes after 12

months, suggesting that therapeutic communities may be beneficial for young people with alcohol and other drug issues who are involved in the criminal justice system.

A similar study comparing Phoenix Academy with comparable programs found similar results at 12 months to the aforementioned study.⁽⁵⁷⁾ The study found that after nine years, the differences in outcomes were not sustained. The researchers highlighted that structured continuing care for young people in contact with the criminal justice system is critical. As when young people complete the residential program they return to environments that expose them to multiple risk factors. Follow up care is essential to minimise risk factors and support ongoing positive outcomes.

A recent Australian study found that, among young people who had a high number of convictions, treatment in a therapeutic community was associated with fewer subsequent convictions, with no impact on those with fewer convictions.⁽⁵⁸⁾ The program provides holistic treatment that includes personal therapy, family support, and educational and vocational training, assisting youth with emotional regulation, mental health and relationships while equipping them with valuable life skills.

These findings suggest that young people with complex needs have greater benefit from attending a therapeutic community.

People in prisons

Rates of alcohol and other drug use are significantly higher among people who are incarcerated compared with the general population.⁽⁵⁹⁾

Alcohol and other drug interventions for people who are incarcerated should be delivered in accordance with the evidence base for effectiveness among the general population, while also targeting the complex and multidimensional factors associated with criminal behaviour.

Therapeutic communities have been found to be one of the most effective treatment options for people with alcohol or other drug issues who are incarcerated, and are

associated with reductions in recidivism, alcohol and other drug use and relapse.⁽⁵⁹⁻⁶¹⁾

Continuing care following participation in prison based therapeutic community treatment programs is associated with ongoing positive outcomes.⁽⁶¹⁾

Our [What Works: Alcohol and other drug interventions in prisons](#) report offers a comprehensive overview of the evidence on effective treatments among prison populations.

Other people with specific needs

We did not find any studies of a high methodological quality examining the effectiveness of residential rehabilitation for people with acquired brain injury, people with low literacy, people who identify as LGBTQIA+, or people from culturally and linguistically diverse backgrounds. This highlights the important need for further research in these populations.



References

1. Reif S, George P, Braude L, Dougherty RH, Daniels AS, Ghose SS, Delphin-Rittmon ME. Residential treatment for individuals with substance use disorders: assessing the evidence. *Psychiatr Serv*. 2014;65(3):301-12.
2. Queensland Alcohol and Other Drugs Sector Network. Queensland Alcohol and other Drug Treatment Service Delivery Framework. Brisbane; 2022.
3. Australian Institute of Health and Welfare. Alcohol and other drug treatment services in Australia: early insights. Canberra: AIHW; 2023.
4. Madden E, Fisher A, Mills KL, Marel C. Best practice approaches for alcohol and other drug treatment in residential settings. Evidence check prepared for the Network of Alcohol and other Drugs Agencies (NADA), commissioned and managed by NADA. Sydney; 2021.
5. National Treatment Agency for Substance Misuse. Models of residential rehabilitation for drug and alcohol misusers. London; 2005.
6. De Leon G, Unterrainer HF. The Therapeutic Community: A Unique Social Psychological Approach to the Treatment of Addictions and Related Disorders. *Front Psychiatry*. 2020;6(11):786.
7. National Institute on Drug Abuse. Therapeutic Communities Research Report. 2015.
8. Mutschler C, Junaid S, Tellez C, Franco G, Gryspeerdt C, Bushe J. Community-based residential treatment for alcohol and substance use problems: A realist review. *Health Soc Care Community*. 2022;30(2):287-304.
9. de Andrade D, Elphinston RA, Quinn C, Allan J, Hides L. The effectiveness of residential treatment services for individuals with substance use disorders: A systematic review. *Drug Alcohol Depend*. 2019;201:227-35.
10. McKetin R, Najman JM, Baker AL, Lubman DI, Dawe S, Ali R, et al. Evaluating the impact of community-based treatment options on methamphetamine use: findings from the Methamphetamine Treatment Evaluation Study (MATES). *Addiction*. 2012;107(11):1998-2008.
11. McKetin R, Kothe A, Baker AL, Lee NK, Ross J, Lubman DI. Predicting abstinence from methamphetamine use after residential rehabilitation: Findings from the Methamphetamine Treatment Evaluation Study. *Drug Alcohol Rev*. 2018;37(1):70-8.
12. McKeganey N, Bloor M, Robertson M, Neale J, MacDougall J. Abstinence and drug abuse treatment: Results from the Drug Outcome Research in Scotland study. *Drugs (Abingdon Engl)*. 2009;13(6):537-50.
13. Teesson M, Marel C, Darke S, Ross J, Slade T, Burns L, et al. Long-term mortality, remission, criminality and psychiatric comorbidity of heroin dependence: 11-year findings from the Australian Treatment Outcome Study. *Addiction*. 2015;110(6):986-93.
14. Doyle M, Carr A, Rowen S, Galvin P, Lyons S, Cooney G. Family-oriented treatment for people with alcohol problems in Ireland: a comparison of the effectiveness of residential and community-based programmes. *J Fam Ther*. 2003;25(1):15-40.
15. Witbrodt J, Bond J, Kaskutas LA, Weisner C, Jaeger G, Pating D, Moore C. Day hospital and residential addiction treatment: randomized and nonrandomized managed care clients. *J Consult Clin Psychol*. 2007;75(6):947-59.
16. Malivert M, Fatseas M, Denis C, Langlois E, Auriacombe M. Effectiveness of therapeutic communities: a systematic review. *Eur Addict Res*. 2012;18(1):1-11.
17. Magor-Blatch L, Bhullar N, Thomson B, Thorsteinsson E. A systematic review of studies examining effectiveness of therapeutic communities. *Therapeutic Communities: The International Journal of Therapeutic Communities*. 2014;35(4):168-84.

18. Vanderplasschen W, Colpaert K, Autrique M, Rapp RC, Pearce S, Broekaert E, Vandevelde S. Therapeutic communities for addictions: a review of their effectiveness from a recovery-oriented perspective. *Sci World J.* 2013;2013:427817.
19. Smith LA, Gates S, Foxcroft D. Therapeutic communities for substance related disorder. *Cochrane Database Syst Rev.* 2006(1):CD005338.
20. Babaie E, Razeghi N. Comparing the effects of methadone maintenance treatment, therapeutic community, and residential rehabilitation on quality of life and mental health of drug addicts. *Addict Health.* 2013;5(1-2):16-20.
21. Vidjak N. Treating heroin addiction: comparison of methadone therapy, hospital therapy without methadone, and therapeutic community. *Croatian Medicine Journal.* 2003;44(1):59-64.
22. Turner B, Deane FP. Length of stay as a predictor of reliable change in psychological recovery and well being following residential substance abuse treatment. *Ther Communities.* 2016;37(3):112-20.
23. McKay JR. Impact of Continuing Care on Recovery From Substance Use Disorder. *Alcohol Research.* 2021;41(1):01.
24. Kelly PJ, Ingram I, Deane FP, Baker AL, Byrne G, Degan T, et al. Feasibility and preliminary results of a call centre delivered continuing care intervention following residential alcohol and other drug treatment. *Drug Alcohol Rev.* 2023;42(6).
25. Kamp F, Hager L, Proebstl L, Schreiber A, Riebschlager M, Neumann S, et al. 12- and 18-month follow-up after residential treatment of methamphetamine dependence: Influence of treatment drop-out and different treatment concepts. *J Psychiatr Res.* 2020;129:103-10.
26. Daughters SB, Magidson JF, Anand D, Seitz-Brown CJ, Chen Y, Baker S. The effect of a behavioral activation treatment for substance use on post-treatment abstinence: a randomized controlled trial. *Addiction.* 2018;113(3):535-44.
27. Messina N, Nemes S, Wish E, Wraight B. Opening the black box: The impact of inpatient treatment services on client outcomes. *Journal of Substance Abuse Treatment.* 2001;20(2):177-83.
28. Grella CE. From generic to gender-responsive treatment: Changes in social policies, treatment services, and outcomes of women in substance abuse treatment. *J Psychoactive Drugs.* 2008;Suppl 5:327-43.
29. Grella CE, Joshi V, Hser YI. Program variation in treatment outcomes among women in residential drug treatment. *Eval Rev.* 2000;24(4):364-83.
30. Bazargan-Hejazi S, De Lucia V, Pan D, Mojtahedzadeh M, Rahmani E, Jabori S, et al. Gender Comparison in Referrals and Treatment Completion to Residential and Outpatient Alcohol Treatment. *Subst Abuse.* 2016;10:109-16.
31. Niv N, Hser YI. Women-only and mixed-gender drug abuse treatment programs: service needs, utilization and outcomes. *Drug Alcohol Depend.* 2007;87(2-3):194-201.
32. Huang H, Ryan JP. Trying to come home: Substance exposed infants, mothers, and family reunification. *Child Youth Serv Rev.* 2011;33(2):322-9.
33. McComish JF, Greenberg R, Ager J, Essenmacher L, Orgain LS, Bacik WJ, Jr. Family-focused substance abuse treatment: a program evaluation. *J Psychoactive Drugs.* 2003;35(3):321-31.
34. Eliason MJ. Are therapeutic communities therapeutic for women? *Subst Abuse Treat Prev Policy.* 2006;1:3.
35. Messina N, Grella CE, Cartier J, Torres S. A randomized experimental study of gender-responsive substance abuse treatment for women in prison. *J Subst Abuse Treat.* 2010;38(2):97-107.
36. James DB, Lee KSK, Dronavalli M, Courtney RJ, Conigrave KM, Conigrave JH, Shakeshaft A. Predictors of length of treatment, discharge reason, and re-admission to Aboriginal alcohol and other drug residential rehabilitation services in New South Wales, Australia. *Drug Alcohol Rev.* 2021;41(3):603-15.
37. Australian Institute of Health and Welfare. National Drug Strategy Household Survey 2022–2023. Canberra: AIHW; 2024.

38. James D, Shakeshaft A, Munro A, Courtney RJ. The Need to Move from Describing to Evaluating the Effectiveness of Indigenous Drug and Alcohol Residential Rehabilitation Services: A Systematic Review. *Curr Drug Abuse Rev.* 2017;10(1):52-67.
39. Preuss K, Brown JN. Stopping petrol sniffing in remote Aboriginal Australia: key elements of the Mt Theo Program. *Drug Alcohol Rev.* 2006;25(3):189-93.
40. Kelly PJ, Coyte J, Robinson L, Deane FP, Russell S, Clapham KF, et al. Evaluating an Aboriginal community controlled residential alcohol and other drug services: Use of benchmarking to examine within treatment changes in wellbeing. *Drug Alcohol Rev.* 2022;41(4):953-62.
41. Munro A, Allan J, Shakeshaft A, Breen C. "I just feel comfortable out here, there's something about the place": staff and client perceptions of a remote Australian Aboriginal drug and alcohol rehabilitation service. *Subst Abuse Treat Prev Policy.* 2017;12(1).
42. Berry S, Crowe T, Deane F, Quinlan E. An exploratory study of culture in treatment for Aboriginal Australian men in residential drug and alcohol rehabilitation services. *J Ethn Subst Abuse.* 2020;21(1):149-73.
43. Deady M, Barrett ELB, Mills KL, Kay-Lambkin F, Haber P, Shand F, et al. Effective models of care for comorbid mental illness and illicit substance use: An Evidence Check review brokered by the Sax Institute for the NSW Mental Health and Drug and Alcohol Office. Sydney; 2014.
44. Chow CM, Wieman D, Cichocki B, Qvicklund H, Hiersteiner D. Mission impossible: treating serious mental illness and substance use co-occurring disorder with integrated treatment: a meta-analysis. *Ment Health Subst Use.* 2013;6(2):150-68.
45. Cleary M, Hunt GE, Matheson S, Walter G. Psychosocial treatments for people with co-occurring severe mental illness and substance misuse: systematic review. *J Adv Nurs.* 2009;65(2):238-58.
46. Mueser KT, Drake RE, Sigmon SC, Brunette MF. Psychosocial Interventions for Adults with Severe Mental Illnesses and Co-Occurring Substance Use Disorders. *J Dual Diagn.* 2005;1(2):57-82.
47. Drake RE, Mueser KT, Brunette MF, McHugo GJ. A review of treatments for people with severe mental illnesses and co-occurring substance use disorders. *Psychiatr Rehabil J.* 2004;27(4):360-74.
48. Sacks S, Banks S, McKendrick K, Sacks JY. Modified therapeutic community for co-occurring disorders: a summary of four studies. *J Subst Abuse Treat.* 2008;34(1):112-22.
49. Grella CE, Shi Y. Stability of Outcomes Following Residential Drug Treatment For Patients with Co-occurring Disorders. *J Dual Diagn.* 2011;7(1-2):103-12.
50. Gray KM, Squeglia LM. Research Review: What have we learned about adolescent substance use? *J Child Psychol Psychiatry.* 2018;59(6):618-27.
51. Tripodi SJ. A comprehensive review: methodological rigor of studies on residential treatment centers for substance-abusing adolescents. *J Evid Based Soc Work.* 2009;6(3):288-99.
52. Bista S, Nathan S, Rawstorne P, Palmer K, Ferry M, Williams M, Hayen A. Mortality among young people seeking residential treatment for problematic drug and alcohol use: A data linkage study. *Drug Alcohol Depend.* 2021;228.
53. Howard J, Arcuri A. Predictors of retention, and client perceptions of treatment satisfaction and outcomes, among young people presenting to residential drug and alcohol treatment with alcohol as a primary or secondary substance of concern. New South Wales; 2005.
54. Gunter WD, Abdel-Salam S. Therapeutic Engagement and Posttreatment Substance Use in Adolescent TC Clients: Direct and Indirect Effects. *J Drug Issues.* 2013;44(1):22-36.
55. Godley MD, Godley SH, Dennis ML, Funk RR, Passetti LL. The effect of assertive continuing care on continuing care linkage, adherence and abstinence following residential treatment for adolescents with substance use disorders. *Addiction.* 2007;102(1):81-93.
56. Morral AR, McCaffrey DF, Ridgeway G. Effectiveness of community-based treatment for substance-abusing adolescents: 12-month outcomes of youths entering phoenix academy or alternative probation dispositions. *Psychol Addict Behav.* 2004;18(3):257-68.

57. Edelen MO, Slaughter ME, McCaffrey DF, Becker K, Morral AR. Long-term effect of community-based treatment: evidence from the Adolescent Outcomes Project. *Drug Alcohol Depend.* 2010;107(1):62-8.
58. Whitten T, Cale J, Nathan S, Williams M, Baldry E, Ferry M, Hayen A. Influence of a residential drug and alcohol program on young people's criminal conviction trajectories. *J Crim Justice.* 2023;84:102026.
59. Doyle MF, Shakeshaft A, Guthrie J, Snijder M, Butler T. A systematic review of evaluations of prison-based alcohol and other drug use behavioural treatment for men. *Aust N Z J Public Health.* 2019;43(2):120-30.
60. Galassi A, Mpofu E, Athanasou J. Therapeutic Community Treatment of an Inmate Population with Substance Use Disorders: Post-Release Trends in Re-Arrest, Re-Incarceration, and Drug Misuse Relapse. *Int J Environ Res Public Health.* 2015;12(6):7059-72.
61. Bahr SJ, Masters AL, Taylor BM. What Works in Substance Abuse Treatment Programs for Offenders? *Prison J.* 2012;92(2):155-74.



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