



Examining experiences and pathways of young people referred to AOD treatment: A mixed methods study

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Youth Pathways team**

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ATCA Conference

Acknowledgement of Traditional Custodians

The Bidjigal and Gadigal people of the Eora nation were coastal dwelling and the harbour and ocean provided much of their food.

We begin with respectful acknowledgement of the Traditional Custodians and Traditional Owners of the lands on which we meet. We pay our respects to Elders past, present and emerging. We acknowledge the deep feelings of attachment and relationship of Aboriginal and Torres Strait Islander peoples to country. We also pay respects to the cultural authority of Aboriginal and Torres Strait Islander people online today.



Funding, team & acknowledgments

The Investigator and research team: Sally Nathan, Andrew Hayen, Joanne Bryant, Eileen Baldry, Mark Ferry, Megan Williams, Tyson Whitten, Jesse Cale, Patrick Rawstorne, Marian Shanahan, Kieran Palmer, Sarita Bista, Bianca Martin.

- ✦ This research was supported by an Australian Research Council Linkage Projects funding grant (LP140100429) and the Ted Noffs Foundation. Sarita Bista was supported as a PhD student with a full scholarship at the UTS Sydney.
- ✦ The Aboriginal Advisory Committee for the project.
- ✦ The data custodians and the CHeReL team - NSW Ministry of Health and ACT Health. Cause of Death Unit Records provided by the Australian Coordinating Registry for the COD URF on behalf of the NSW Registry of Births, Deaths and Marriages, NSW Coroner and the National Coronial Information System.
- ✦ Noffs staff, and most importantly the young people themselves who shared their stories with the project team and consented to being part of this study

Presentation focus

1. Background to study
2. Mortality linked data findings
3. Hospitalisation linked data findings
4. Convictions linked data findings
5. Aboriginal young people experiences



The Youth Pathways Study - Aim

- There have been very few high-quality outcome studies focused on AOD residential treatment outcomes for young people internationally and none identified in Australia.



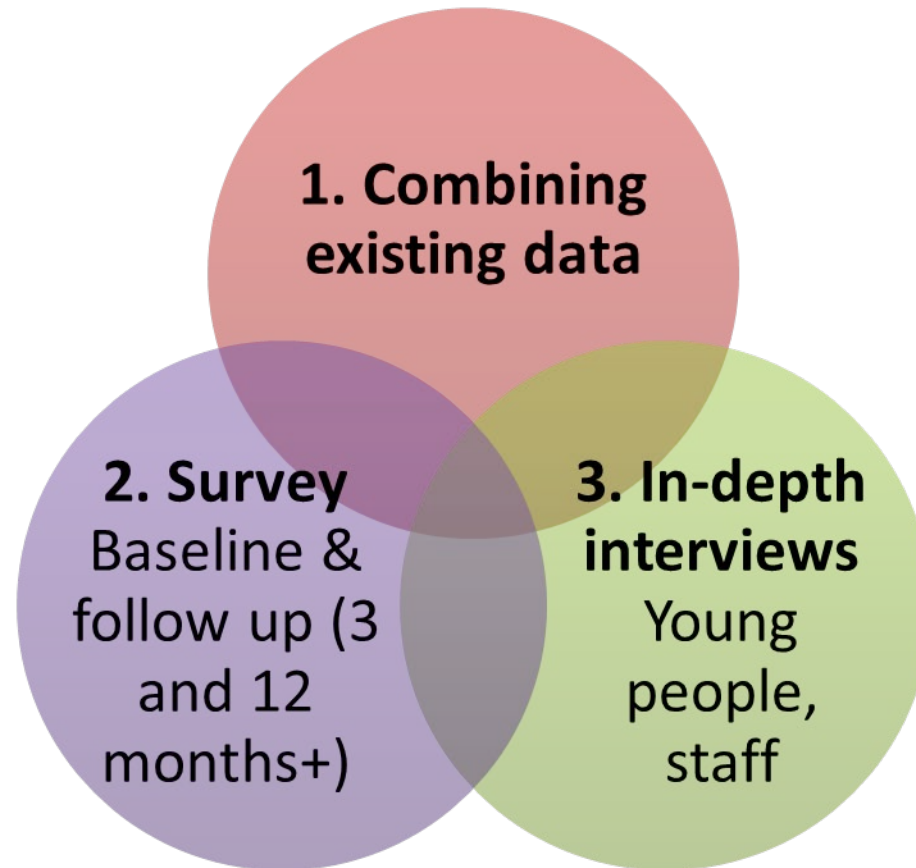
To examine the experiences and outcomes for young people who have participated in PALM compared with similar young people who have not completed such a program

Table 1: Young people who attended PALM, 2009-2014

	Number (%) of participants (n = 865)
Age, mean (SD)	16.6 (1.0)
Male	628 (72.6)
Ever suspended or expelled from school	725 (83.8)
Ever enrolled in special class at school	340 (39.3)
Places lived in six months prior	
1 place	287 (33.2)
2 places	235 (27.2)
3 places	160 (18.5)
≥ 4 places	183 (21.2)
Arrests in three months prior	
0 arrests	279 (32.3)
1 arrest	241 (27.9)
2–3 arrests	233 (26.9)
≥ 4 arrests	112 (12.9)

Source: Nathan et al , MJA, 2016b

The study had three main components

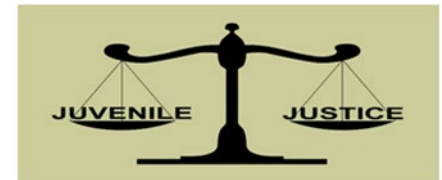


Linked data

The records of 3,308 persons from the cohort of 3,639 referred persons (2001-2015) were linked to at least one dataset with:

- 79.4% to the Emergency Department records
- 72.1% linking to the Admitted Patient records
- 68.2% to Mental Health Ambulatory records,
- 58.4% to the criminal justice dataset
- 27.9% to Notifiable Conditions Registry
- 1.7% to the death registration records

Data pre-referral from age 11 and up to 15 years post treatment depending on age and referral date of client.



2. Mortality data analysis

Aims:

- to estimate mortality and compare it with the general population and by demographic, treatment, AOD use, and mental health characteristics
- to analyse causes of death

Study design:

- Retrospective cohort study (2001-2015)
- Cohort data linked to mortality data
- Follow-up of up to 16 years until Dec 2016.

Cite: Bista S; Nathan S; Rawstone P; Palmer K; Ferry M; Williams M; Hayen A, 2021, Drug and Alcohol Dependence, vol. 228

Results & Implications

- Higher rate of mortality compared to the general population of the same age – using SMR.
- Many of those who died were aged below 24 years
- Co-morbid mental health and history of trauma = elevated rate of mortality
- Those in treatment likely to be more at risk with higher co-morbid mental health issues at baseline than those who do not attend
- Drugs and alcohol were an underlying or contributing cause in 2/3 of deaths
- Continuing care post treatment is vital to minimise relapse and reduce risk of harm including death

3. Hospitalisations linked data

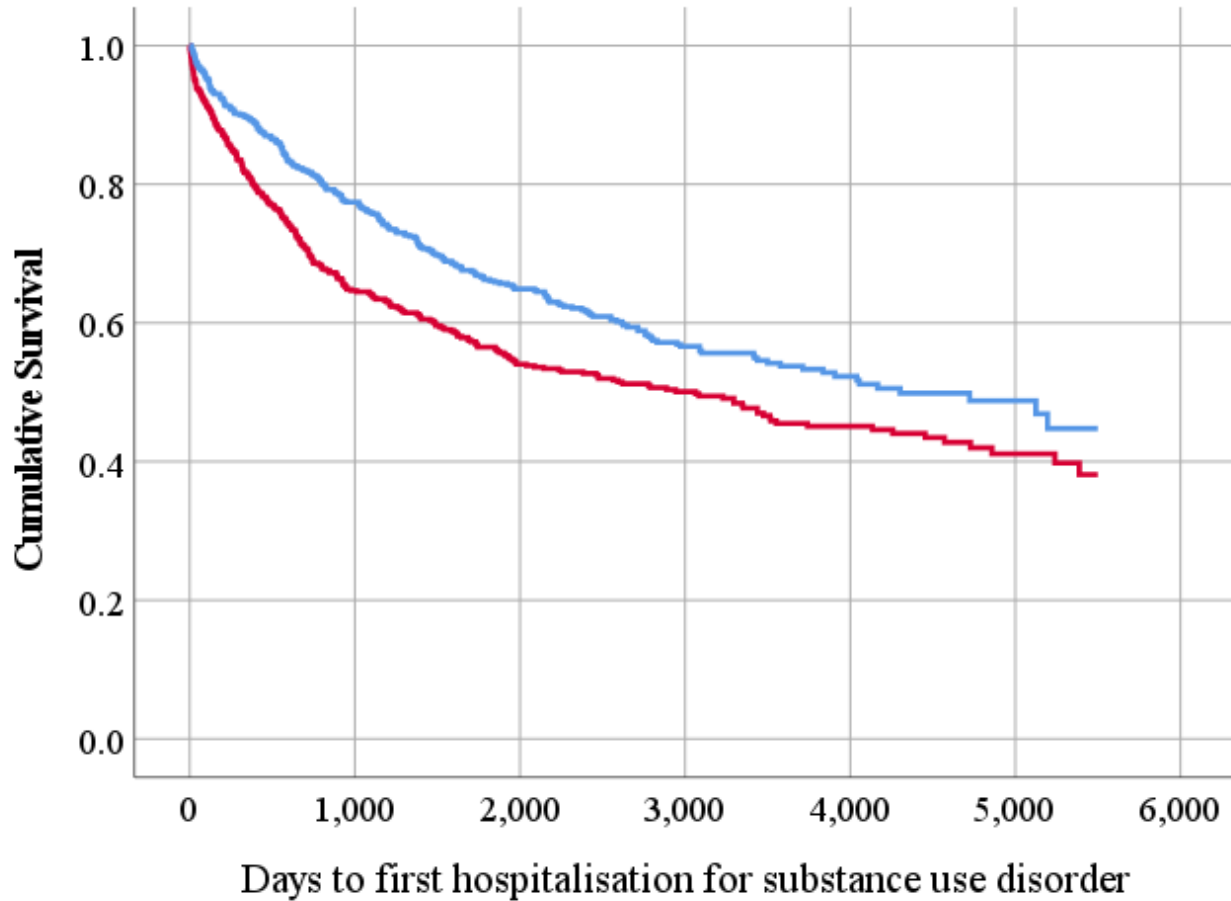


We examined the rate of hospitalisation separately for a (i) physical injury, (ii) mental health problem, (iii) substance use disorder, and (iv) organic illness, up to 15 years post-treatment among:

1. All adolescents admitted to PALM, and;
2. Separately for those with and without a history of criminal conviction

Cite: Whitten T, Cale J, Nathan S, Bista S, Ferry M, Williams M, et al. Hospitalisation following therapeutic community drug and alcohol treatment for young people with and without a history of criminal conviction. *Drug and Alcohol Dependence*. 2022;231.

Survival Function



— Comparison
— Treatment

Substance use HR (95% CI)

Treatment: 0.59 (0.47-0.75)^t

No prior conviction: 0.64 (0.48-0.86)

Prior conviction: 0.60 (0.45-0.80)

Key findings

- Treatment in PALM for ≥ 30 days was associated with a lower rate of hospitalisation for all diagnostic categories.
- Treatment conferred significantly greater reductions in the rates of physical injury for those with a history of criminal conviction.
- Treatment effect may be due to PALM's focus on targeting many of the social determinants of health.
- Aftercare important in sustaining the long-term benefits of treatment - CALM.
- The high proportion of Aboriginal and/or Torres Strait Islander young people attending PALM also highlights the need for continued attention to culturally responsive models of care.

4. Convictions linked data analysis

Study 1: Influence on young people's criminal conviction trajectories

Whitten, T., Cale, J., Nathan, S., Williams, M., Baldry, E., Ferry, M., & Hayen, A. (2023). Influence of a residential drug and alcohol program on young people's criminal conviction trajectories. *Journal of Criminal Justice*, 84, 102026.

<https://doi.org/10.1016/j.jcrimjus.2022.102026>

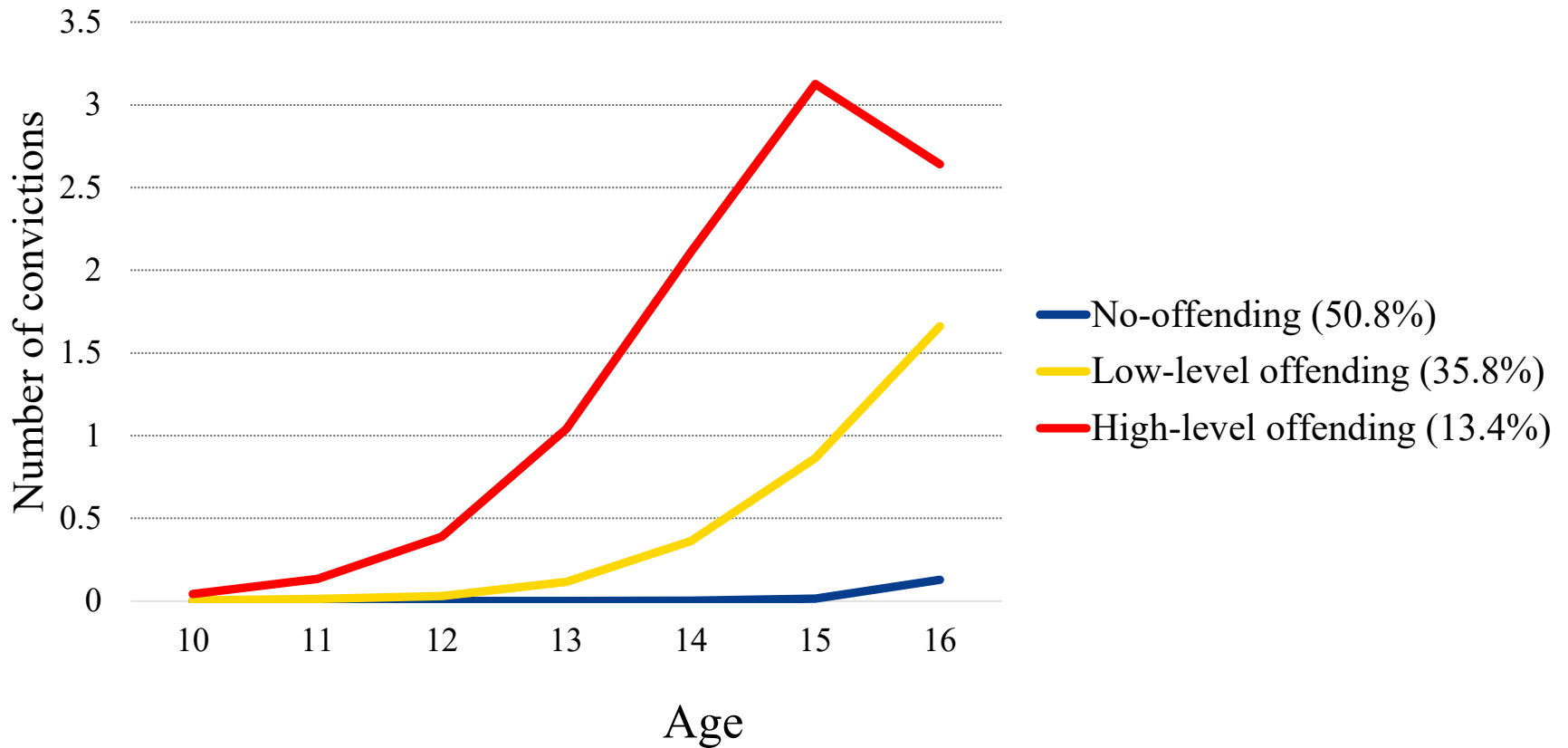
WHAT WE DID

SAMPLE: Adolescents who spent at least one day in the Sydney PALM facility & further restricted to the 891 clients aged 17 years at their last treatment episode who had at least five years of follow-up data.

METHOD: Group-based trajectory modelling and propensity score matching to estimate treatment effect at age 17 on subsequent convictions up to 22 years of age.

COVARIATES: Sex, Aboriginal/Torres Strait Islander identity, prior mental disorder diagnosis, referral source, socioeconomic status (SEIFA), number of prior offences, age, and number of prior days in treatment. Controlled for days incarcerated from ages 17 to 22.

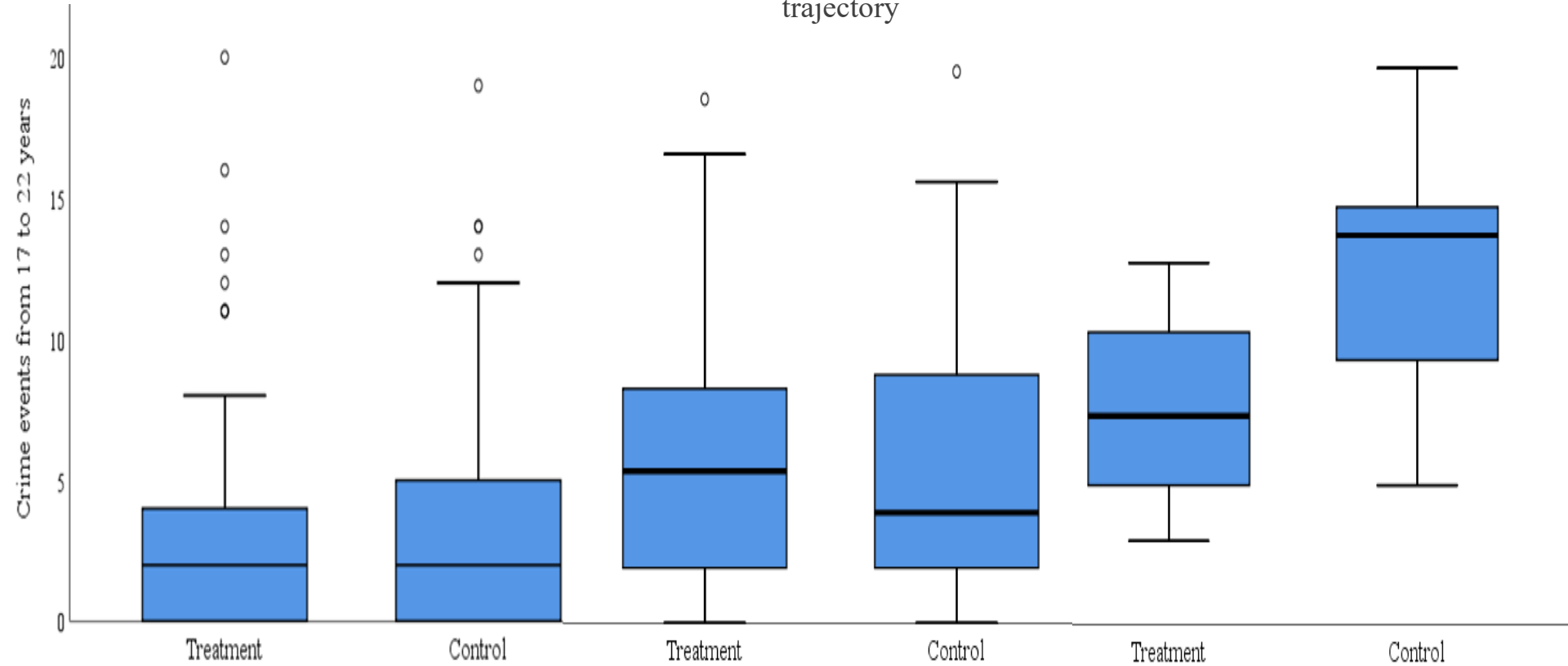
Adolescent trajectories of offending prior to referral



No or low convictions trajectory

Moderate incline conviction trajectory

High incline conviction trajectory



Convictions analysis key findings

- Staying in the program for 31 days or more **associated with a significant decrease in convictions for the high incline convictions trajectory** relative to young people who spent less than three days in the program.
- The reduction in the number of convictions for the high incline group was substantial corresponding to an average **4.36 fewer convictions over five years post referral**.
- Sensitivity analyses confirmed findings
- **Conclusion:** Residential therapeutic communities may be an effective intervention to reduce future convictions among young people with drug and alcohol problems who have a high number of convictions prior to referral.

Study 2: Convictions days in treatment analysis

AIM: Examine the association between duration of treatment and subsequent rate of conviction for any offence, and separately for a violent, non-violent, and administrative offence up to 15 years posttreatment

Whitten, T, Cale, J, Nathan, S, Hayen, A, Williams, M, Shanahan, M, et al. Duration of stay and rate of subsequent criminal conviction and hospitalisation for substance use among young people admitted to a short-term residential program. *Drug Alcohol Rev.* 2023; 42(6): 1450–1460. <https://doi.org/10.1111/dar.13655>



WHAT WE DID

SAMPLE: Adolescents who spent at least one day in the Sydney PALM facility (n=1,955).

COVARIATES: Sex, Aboriginal/Torres Strait Islander identity, prior mental disorder diagnosis, referral source, socioeconomic status (SEIFA), number of prior offences, age, and number of prior days in treatment.

METHOD: Cox proportional hazards regression analyses.

Table 1. Median days to first conviction.

DAYS IN TREATMENT	OFFENCE TYPE			
	ANY	VIOLENT	NON-VIOLENT	ADMIN
1 to 29 days	371	1595	546	2118
30 to 59 days	474	1979	604	3326
60 to 89 days	699	3425	1145	3532
90 to 120 days	1002	3699	1195	3933
log-rank χ^2	44.05*	34.52*	37.72*	30.60*

* $p < .001$

Days in treatment key findings

- Thirty days or more in treatment was associated with a lower rate of conviction for any and a non-violent offence
- Sixty days or more was associated with a lower rate of conviction for a violent and administrative offence, relative to those who spent 1 to 29 days in treatment.
- Sixty days or more of treatment was also associated with a lower rate of conviction for all crime types, except administrative offence, relative to 30 to 59 days in treatment.
- Ninety to 120 days had no additional crime reduction benefit than 60 to 89 days in treatment.

Summary of convictions findings

Study 1: Our findings indicate that residential treatment in a therapeutic community led to significant reductions in convictions among those characterised by the most serious offending trajectory from age 10 to 16 years prior to PALM referral.

Study 2: At least 60 days in care may be the minimum duration needed for short-term, therapeutic community treatment programs to reduce the risk of offending across all crime types

5. Aboriginal young people



Key findings from survey of those who stayed 30 days or more

- Significant decrease in self-harm and attempted suicide post compared to prior to the program.
 - Number of drugs used also significantly reduced, and Severity of Dependence Scale scores significantly improved.
 - Significant decrease in the proportion who reported being arrested at 3 months post-discharge compared to referral.
- BUT how to prevent significant numbers leaving before 30 days...

Experiences of Aboriginal young people

Introduction



Critical success factors for young Aboriginal and Torres Strait Islander people in residential drug and alcohol treatment.

- Understanding Aboriginal young peoples' experiences in treatment vital to inform service improvements and maximise the impact of programs.



Findings from qualitative data

1. Unique experiences and pathways to healing
2. Time for healing – physical, psychosocial, cultural and spiritual
3. Collective health – family and community
4. Ongoing journey of healing – after care, support for families and in community



Implications

- Critical to embed Aboriginal cultural knowledges and practices about healing at an organisational level.
- Partnerships between Aboriginal and mainstream services are highlighted and must be mutually beneficial.
- Importance of employing more Aboriginal staff in mainstream services and ensuring a culturally-safe work environment for Aboriginal staff.
- Programs need to seek out and support long-term relationships with Aboriginal Elders to support Aboriginal young people in residential treatment.

Key papers published

Whitten T, Cale J, Nathan S, Williams M, Baldry E, Ferry M, et al. Influence of a residential drug and alcohol program on young people's criminal conviction trajectories. *Journal of Criminal Justice*. 2023. <https://doi.org/10.1016/j.icrimjus.2022.102026>

Whitten T, Cale J, Nathan S, Hayen A, Williams M, Shanahan M, et al. Duration of stay and rate of subsequent criminal conviction and hospitalisation for substance use among young people admitted to a short-term residential program. *Drug and Alcohol Review*. 2023. <https://doi.org/10.1111/dar.13655>

Whitten T, Cale J, Nathan S, Bista S, Ferry M, Williams M, et al. Hospitalisation following therapeutic community drug and alcohol treatment for young people with and without a history of criminal conviction. *Drug and Alcohol Dependence*. 2022;231:109280. <https://doi.org/10.1016/j.drugalcdep.2022.109280>

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