

RESEARCH

Open Access



# “There’s a big tag on my head”: exploring barriers to treatment seeking with women who use methamphetamine in Sydney, Australia

Brendan Clifford<sup>1,2,3,4\*</sup>, Kate Van Gordon<sup>5</sup>, Fiona Magee<sup>6</sup>, Victoria Malone<sup>1</sup>, Krista J. Siefried<sup>1,2,4</sup>, Duncan Graham<sup>2</sup> and Nadine Ezard<sup>1,2,3,4</sup>

## Abstract

**Background** Australia has a high prevalence of regular use of methamphetamine. While half of people who use methamphetamine regularly are women, they make up only one third of people seeking treatment for methamphetamine use disorder. There is a lack of qualitative research into the facilitators and barriers to treatment for women who use methamphetamine regularly. The study seeks a better understanding of the experiences and treatment preferences of women who use methamphetamine, to inform person-centred changes in practice and policy that break down barriers to treatment.

**Methods** We conducted semi-structured interviews with 11 women who frequently use methamphetamine (at least once a week), and who are not engaged in treatment. Women were recruited from health services surrounding a stimulant treatment centre at an inner-city hospital. Participants were asked about their methamphetamine use and health service needs and preferences. Thematic analysis was completed using Nvivo® software.

**Results** Three themes were developed from participants’ responses around experiences of regular methamphetamine use and treatment needs: 1. Resistance of stigmatised identity including dependence; 2. Interpersonal violence; 3. Institutionalised stigma. A fourth set of themes on service delivery preferences were also elicited, including continuity of care, integrated health care, and provision of non-judgmental services.

**Conclusion** Gender-inclusive health care services for people who use methamphetamine should actively work to address stigma, support a relational approach to assessment and treatment, and seek to provide structurally competent health care that is trauma and violence informed, and integrated with other services. Findings may also have application for substance use disorders other than methamphetamine.

**Keywords** Methamphetamine, Methamphetamine use disorder, Gender, Health services accessibility

\*Correspondence:

Brendan Clifford

Brendan.clifford@svha.org.au

<sup>1</sup> Alcohol & Drug Service, St Vincent’s Hospital Sydney, Sydney, New South Wales, Australia

<sup>2</sup> National Centre for Clinical Research on Emerging Drugs of Concern, Sydney, New South Wales, Australia

<sup>3</sup> Drug and Alcohol Clinical Research and Improvement Network, Sydney, New South Wales, Australia

<sup>4</sup> National Drug and Alcohol Research Centre, University of New South Wales Sydney, Sydney, Australia

<sup>5</sup> Victor Medical Centre, Victor Harbor, South Australia, Australia

<sup>6</sup> South Eastern Sydney Local Health District, Sydney, New South Wales, Australia



© The Author(s) 2023. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article’s Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article’s Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.

## Background

The use of methamphetamine is a growing public health concern globally [1], with methamphetamine related death rates increasing in Australia from 0.14 to 0.44 per 100,000 population between 2012 and 2016 [2]. Harms associated with methamphetamine use include depression, anxiety, psychosis, cardiovascular disease, cerebrovascular disease [3, 4], and the development of methamphetamine use disorder [5, 6]. Evidence-based therapies for methamphetamine use disorder include psychosocial interventions such as Cognitive Behavioural Therapy (CBT) [7] with ongoing work to develop adjunct pharmacotherapies [8]. In Australia, despite high rates of regular use and methamphetamine use disorder, there is relatively low treatment utilisation overall [9], with a gap of five [10] to ten years [11] between first problematic use of methamphetamine and the seeking of treatment. This is partly due to self-perceived non-problematic use, even after people have begun to experience harms associated with methamphetamine [12]. People who use methamphetamine, however, also report low confidence in the efficacy of treatment services and cite the opiate-centric nature of alcohol and other drug (AOD) services as barriers to help-seeking [13–15]. Specialist treatment services that provide psychological and medical interventions for people experiencing methamphetamine use disorder delivered within a non-judgmental, harm reduction framework have been found to be attractive to participants [16] and effective in providing significant reductions in methamphetamine use and its harmful effects [17].

Substance use remains deeply gendered in Australia, being seen as of rite of passage and a form of active exploration in masculinity, but linked with “ineffective coping mechanisms” [18] and a need to quell internal psychological struggles when associated with femininity [19]. Importantly, evidence suggests that once in treatment, outcomes for women may be better than those for men. In a longitudinal Californian study of people in treatment for methamphetamine use disorder [20], for instance, women demonstrated greater improvement in family relationships and medical problems compared to men. This was despite women in the sample being more likely than men to be unemployed, have childcare responsibilities, live with someone who also used substances, have been physically or sexually abused, and to have more psychiatric symptoms [20]. In Australia, however, women are less likely to participate in treatment for methamphetamine use disorder [21], making up only a third of people who access treatment [22], despite being as likely as men to use methamphetamine weekly [23].

This study was undertaken to understand the nature of barriers to specialist methamphetamine use disorder

treatment for women in a metropolitan area of Sydney, Australia. Rather a fixed binary epidemiological or clinical category, it understands gender as complex social phenomenon that extends beyond these classifications [24], and seeks to build the voices of women into contemporary clinical practice.

## Methods

### Design

An exploratory qualitative methodology was used to assess experiences of women who regularly use methamphetamine but who have not accessed a specialised treatment service. The study setting was an inner-city tertiary Australian hospital with a free specialist treatment clinic that provides assessment and early intervention [16] and outpatient counselling [17] for people who use methamphetamine. The clinic serves a local community which is a mixed area of high disadvantage and rapid gentrification, with high rates of drug use, a number of sex work premises and the city’s only medically supervised injecting centre.

### Sampling and data collection

Study advertisements were placed in five local and community health centres purposively chosen to provide a range of service settings including an opioid assisted treatment clinic, a free primary care clinic, a medically supervised injecting centre, a community drop in service for people of diverse sexualities and genders, and a women’s refuge. Advertisements sought interviews with people who identified as women and who used methamphetamine at least weekly, were not engaged in methamphetamine specific treatment, and were aged at least 18 years. Prospective participants were asked to contact the investigator team by telephone where eligibility criteria were confirmed, and if suitable an interview time arranged to be held in a counselling room at the clinic. A study information sheet was provided at the interview visit, and informed consent was sought. Participants were given an AU\$20 grocery voucher prior to completing demographic and substance use questionnaires, the Severity of Dependence Scale (SDS) [25] and undertaking a semi-structured interview exploring participants experiences of methamphetamine use, health care services and treatment preferences for methamphetamine use disorder. The SDS [25] was used as a less burdensome indicator of dependence than a full clinical assessment, as the study sought women who used methamphetamine but did not necessarily regard themselves as having a use disorder or needing treatment. The SDS is a five-item measure of the degree of dependence on a drug, based on psychological components such as preoccupation, anxiety related to missing doses, and impaired control [25].

Each item is scored from 0 to 3, with a maximum score of 15, and a score of 4 or more indicating dependence [25].

### Analysis

The interview data are recognised as being co-created by participant and interviewer, and both the data and its analysis influenced by the perspectives and genders of the researchers [26]. The interviews were transcribed, and analysed thematically [27]. Authors KVG, FM, BC and VM initially coded two transcripts each using NVivo® (QSR International) software examining participants' relationship to and experiences of methamphetamine use; barriers experienced in access to care; use of health services; and perceived treatment needs. The study team then met to examine emergent subthemes from the codes, exploring linkages between themes and subthemes, searching for negative or deviant examples, extracting quotes to exemplify arguments, and developed a thematic framework with which to analyse the remaining transcripts. After the remaining transcripts were coded, the team met again to re-evaluate the validity of the themes and draw out meta-themes.

### Results

A total of 11 women contacted the study team, all of whom met the eligibility criteria. They were mainly recruited from non-gender specific AOD services. SDS scores ranged from 1 to 11, with a median of 9, and nearly three quarters of the sample scored 4 or more (indicative of dependent use). Further participant characteristics are presented in Table 1. Eleven interviews were conducted, with an average length of 33 minutes. Four themes were developed from the data: identity, stigma and resistance; interpersonal violence; institutionalised stigma; and service delivery preferences. Quotes are provided to illustrate each theme, with the participant identification number, age range and SDS score also provided for context.

#### Identity, stigma and resistance

Several participants emphasised the positive aspects of their methamphetamine use, such as how it enabled productivity, or as a form of recreation.

*"The sex is just more intense and, you know, you've less inhibitions" (Participant 6, age 41-45, SDS 9).*

*"My first experience ... I found that it elevated my levels of perception and my levels of superwoman likeness ... in a way that I could achieve many things in a short period of time." (Participant 3, age 31-35, SDS 1).*

**Table 1** Participant characteristics

Demographic	Number (%)
Total sample	11
Gender (identified as woman)	11 (100)
Age range in years	
25-35	2 (9)
36-40	2 (18)
41-45	4 (36)
46+	3 (27)
Aboriginal/Torres Strait Islander	3 (27)
Sexual Orientation	
Heterosexual	7 (63)
Bisexual/Queer	4 (37)
Relationship Status	
In a relationship	6 (55)
Experiencing Homelessness	5 (45)
Mode of MA use	
Injecting	11 (100)
Smoking	2 (18)
Frequency of use (last 30 days)	
> 2 times per week	11 (100)
Daily	7 (63)
Duration of frequent use	
< 5 years	5 (45)
5-10 years	4 (37)
> 20 years	2 (18)
Methamphetamine dependence	
SDS $\geq$ 4	8 (72)
Self-reported dependence	7 (63)
Other Drugs – use/self-reported dependence	
Opiates	10 (90) / 7 (63)
Alcohol	11 (100) / 1 (1)
Tobacco	10 (90) / 7 (63)
Gamma-hydroxybutyrate/Gamma-Butyrolactone	8 (72) / 0 (0)
Cannabis	11 (100) / 3 (27)
Benzodiazepines	10 (90) / 2 (18)
Methamphetamine related harms	
Physical <sup>a</sup>	10 (90)
Mental <sup>b</sup>	6 (55)
Social <sup>c</sup>	11 (100)

<sup>a</sup> Heart disease, cardiac stents, chest pain, bacterial endocarditis, oral decay, skin abscesses, staphylococcus infections, chest pain, hepatitis, persistent cough

<sup>b</sup> Psychosis, severe mood swings, depression, anxiety, paranoia, hallucinations

<sup>c</sup> Intimate partner violence, domestic violence, violence, imprisonment, loss of custody of children, debt, gambling, poverty, homelessness

*"I'm usually doing something though - cleaning or doing something so I'm not sitting there in the mirror picking." (Participant 5, age 36 - 40, SDS 9).*

Nonetheless, stigmatising language was used by the participants themselves in describing methamphetamine use.

*“The methamphetamine scene - I have never seen such putrid behaviour. I've never seen such vile creatures or predators or soulless people in my life and it has been truly a very disheartening experience.” (Participant 3, age 31-35, SDS 1).*

They also described the stigma they felt in being identifiable as someone who used drugs.

*“I sort of feel like there's a big tag on my head that says I'm a drug user (laughs). I don't know but I just stand out.” (Participant 1, age > 50, SDS 5).*

*“I was treated like a second class citizen, possibly because I looked quite dubious.” (Participant 3, age 31-35, SDS 1).*

This affected their sense of belonging and identity within their families.

*“My family judged me. They judged my loss of weight, they judged my appearance, they judged the fact that I had lost everything in my life” (Participant 3, age 31-35, SDS 1).*

The loss of custody of children in relation to their methamphetamine use and implications of this on their sense of self, was also discussed by participants.

*“It's not pleasant. I really need to go back to family. There are things that the ice [crystal methamphetamine] has stopped me from doing like things that I should be doing.” (Participant 6, age 41-45, SDS 9).*

*“No one ever gave me a pat on the back to say, you know ‘Good, we recognise that you've made major changes because of your children’ ... you know I don't want to be labelled like a bad parent.” (Participant 1, age > 50, SDS 5).*

*“I just wanna get a place and a get a house where I can go get my children and bring them home and live with me as a family and I will wanna stay off the ice for them. I just wanna stop doing it for my children's sake.” (Participant 2, age 25-30, SDS 11).*

Participants characterised their own use as being different to problematic or dependent use.

*“I certainly wouldn't say that I am addicted to it ... It takes a very strong personality to take a drug for three days and then stop because this drug is by far the most addictive drug out of all of them.” (Participant 3, age 31-35, SDS 1).*

Participants also highlighted the difference between their use with the use of others, both in terms of

“controlled use” and better management of the consequences of use.

*“I feel sorry for her ... she doesn't have that self-control that's just the mind over matter thing.” (Participant 3, age 31-35, SDS 1).*

*“Ah it's just disgusting ... she must probably shoot up her neck, so wherever the shooting site is ... If I even see a couple of spots on me, I'm straight to the doctor. I don't wanna turn out like that.” (Participant 1, age > 50, SDS 5).*

### Interpersonal violence

Several participants spoke of their intimate partner relationships as being innately linked with their use of methamphetamine. These relationships were also associated with the experience of violence and coercive control.

*“It was in a domestic violent relationship and the deal with him was if I were to use it, I had to inject it. So I started injecting it. Before that I was smoking it. It was a control thing for him, being the control freak.” (Participant 4, age 36-40, SDS 10).*

*“If I ever get in a co-dependant relationship or a violent relationship it was usually based around using of ice. If they went to jail I stopped using ... I'm letting him control the whole relationship, the money and everything. And then I'm the one that's gotta go out and get more money.” (Participant 6, age 41-45, SDS 9).*

Partners were also described as key to the participant's initial use of methamphetamine.

*“I never used to like the ice ... it was only through a boyfriend I was with, but before that the thought of it - I hated it. It was first it was around having sex, get on the high before having sex or while having sex. I did it at the beginning to please my partner - I never really did it for me.” (Participant 4, age 36-40, SDS 10).*

### Institutionalised stigma

Participants identified situations in which they faced institutional prejudice and stigma, particularly within the healthcare and criminal justice systems.

*“With police you know, I always have issues with them you know because of my drug history. Once they know you're a drug user they treat you different ... To them I think you know you're a piece of shit ... so they talk down to you ... Even in domestic violence*

situations where I've been badly bashed or whatever they still treat you the same." (Participant 4, age 36-40, SDS 10).

"I was going to court for my children and I was wearing normal clothes as everyone else in the train station – the suit jacket and you know black and white. The police were there and they came just straight to me. Why me you know? I look the same as everyone else." (Participant 1, age > 50, SDS 5).

This extended into healthcare interactions, and participants reported that this impacted on their willingness to ask or receive help.

"I don't know if I was paranoid but yeah with some doctors I felt once they realised you're a sex worker or a drug user their whole persona changes." (Participant 4, age 36-40, SDS 10).

"I had to wait two hours ... and it wasn't until I started crying and going on, just because you couldn't ... you know no one can see my symptoms." (Participant 8, age 41-45, SDS 3).

Participants identified how feelings of shame affected their capacity to seek help.

"I feel a bit shame about what I've been through and I didn't wanna talk about it cos I didn't know how to express it. Now that I'm over it and I've realised what I've been through I can talk and express it." (Participant 2, age 25-30, SDS 11).

Even when seeking help, participants emphasised the challenge in communicating their distress to healthcare workers.

"No one knew what I was going through because they hadn't been through it, or they never knew anyone in that situation before ... I wasn't speaking the right words." (Participant 2, age 25-30, SDS 11).

"I was so agitated, I was so distressed, and then I just said to [telephone counsellor] 'thank you very much I must be a really difficult one, have a good day.' [laughs] Just to release him cos he really wasn't helping" (Participant 8, age 41-45, SDS 3).

### Health service delivery preferences

We identified three key themes around participant's preferences for health service delivery: trusted continuous care; care that is integrated with other services; and is free of judgment.

### Trusted continuous care

Participants valued continuity of care from healthcare professionals that knew their individual history and they had built a therapeutic relationship with over an extended period of time. It gave participants a sense of trust and belonging.

"Sometimes I guess I feel shy around people I don't know. The last couple of times I've been shifted around to a different person and I'm not gonna start telling them my dark secrets." (Participant 7, age 41-45, SDS 11).

"I have ... a problem with feeling comfortable with certain people and trust issues. If I don't feel comfortable or if I don't like you I won't be sitting there. It's taken weeks, months if not years before I even sit down and have a conversation with you." (Participant 4, age 36-40, SDS 10).

### Integrated with other services

Participants valued services that had an integrated approach to medical care, psychological and social service support.

"It's the place that I'll go to for everything ... they're the best people ... I see my psychiatrist there, my doctors there, and my counsellor ... my folder's about that thick [laughs]." (Participant 1, age > 50, SDS 5).

"[Current health service] is combined with counselling, help with housing, domestic violence. If I've got to go to court, [case worker] comes straight up to talk with me, like on a minute's notice" (Participant 5, age 36 – 40, SDS 9).

Culturally appropriate services were also valued

"[Aboriginal Health Worker] gets what I like, what I don't like. She even knows the clothes I like to wear ... Whenever I get any of the ladies that are downstairs, that are non-Indigenous, they always come out with old people clothes." (Participant 11, age 46-50, SDS 9).

### Non-judgmental

Participants feared experiencing discrimination due to their drug use when seeking help from health professionals, and described how non-judgemental care improved their interactions with health services.

"I like it because they don't discriminate ... that they really make me feel I'm not different. I can

*just talk to them just to let it out and I never snap. [At other places] it was like guilty - I had to prove myself innocent.” (Participant 1, age > 50, SDS 5).*

*“They’ve always been really non-judgemental and you know really forthright and you know don’t look down on you.” (Participant 6, age 41-45, SDS 9).*

## Discussion

In this study, we explored the perspectives of a sample of 11 diverse women who regularly use methamphetamine and their healthcare service delivery preferences. Findings point toward several areas which might be addressed to promote earlier specialist treatment-seeking.

### Working with stigma

Effective assessment of substance use issues is key to facilitating earlier recognition of substance use disorders, and engagement with specialist treatment. The self-identification of problematic use was complicated for participants in the study by feelings of shame and the fear of experiencing discrimination. Women who use drugs may be more susceptible to feeling stigmatised than men [28], and are reported to be more likely to experience stigma as a barrier to treatment [29]. Countering stigma is a key competency for professionals working with this group [30]. Green (2006) found that women were most likely to seek help for substance use in primary healthcare and mental healthcare [28], highlighting the need for effective engagement for both AOD and non-AOD services. It also suggests a role for specialist treatment programs for methamphetamine use disorder to work with and upskill healthcare professionals in non-specialist AOD and other healthcare settings.

It is also notable that participants readily identified benefits to their use of methamphetamine, such as increased productivity and sociability. People may not readily identify their ambivalence around reducing or ceasing methamphetamine use in healthcare settings, given the stigma of drug-related pleasure [31]. Healthcare professionals should recognise there are different stages in readiness to addressing drug use, and have a number of strategies to engage accordingly. Motivational interviewing, for instance, takes account of readiness to change, and can be effective after just one session when delivered by healthcare professionals in non-AOD settings [32].

### Working with social networks

A prominent theme among study participants was the interaction between social relationships, their experience

of methamphetamine use, and treatment seeking. Intimate relationships were implicated in onset and continuation of methamphetamine use for some, and relationships involving trauma and violence were common. Women with substance use disorders have been reported as having higher rates of trauma histories than men [33], with up to 80% of women who seek treatment for substance use disorder estimated to have lifetime histories of sexual and/or physical trauma [34]. This underscores the need for trauma and violence-informed care in all settings [35], with health professionals trained in the empathetic eliciting and recognition of intimate partner violence, robust systems of referral, and an understanding of the impact of trauma on health and help-seeking.

A number of the participants had experienced engagement with child protection services, consistent with substance use being recognised as a predictor of children being taken into care at birth [36]. An Australian study of a sample of methamphetamine smokers found that in addition to experiences of poverty and homelessness, accessing treatment was also associated with an increased likelihood of child-removal for women [37]. The risk of child removal in addition to stigmatisation and high rates of disadvantage and trauma for this population [38, 39] underline the need for careful assessment and adequate support for this population when engaging with services.

Importantly, relationships were regarded as resource and a driver for treatment seeking and utilisation by participants. This mirrors the growing recognition of the role of significant others [40] and social networks as a form of recovery capital [41, 42], and the inclusion of family and friends in treatment planning presents an opportunity to enhance outcomes in treatment. Further research is required in order to build the evidence base for family and social network inclusive practices in methamphetamine use disorder treatment.

### Countering power imbalances

Participants reported that experiences of stigma in interactions with healthcare and other institutional settings were common. This led to caution around disclosing their methamphetamine use in case it led to discriminatory attitudes or behaviours towards them when they were especially vulnerable, and underpins the value participants held for trusted relationships built over time with individual professionals in those institutions. Hospitals and other healthcare settings can be experienced as unsafe spaces by people who use drugs [43, 44]. The inclusion of workers with lived experience in healthcare teams can be an effective strategy in reducing fear of discrimination and empowering clients [45]. People may

feel also more comfortable receiving healthcare outside of institutional settings, and so the delivery of specialist methamphetamine use disorder treatment through outreach and community partnerships, and with technological innovations such as telehealth, may also be of value in addressing these provider-client power imbalances.

### **Integrated and structurally competent service delivery**

Participants in the study had needs across multiple domains, encompassing physical and mental health needs, income support, social support and justice involvement. This need for integrated care to support the whole of a person's health needs through effective working across healthcare and other services has also been highlighted by other studies with people with substance use disorders [46, 47].

The participants' accounts of disadvantage are also better understood as resilience in the face of structural vulnerability [48], rather than behaviours or social risk factors. Such an understanding focuses on the ways in which social structures and power relationships make specific groups more or less likely to develop substance use issues, which is then compounded by inequities in access to healthcare treatment. As McKenna notes, poor and minority women who use drugs exist in risk environments characterised by multiple levels of structural, physical and symbolic violence [49]. This vulnerability is reinforced by stigmatizing drug policies, laws and media portrayals [49]. The multiple axes of structural vulnerability recounted by the participants in this study, not just gender, but also race, and poverty, underscore the need an intersectional approach to planning treatment services. Structurally competent healthcare [50] seeks to produce workers and systems who recognise the effects of structural disadvantages on health and develop responses that prevent further harms. It is especially relevant in addressing the challenges to health equity that arise from systemic discrimination for people who use drugs [51, 52], as well as inequities arising due to gender [53, 54].

### **Limitations**

Our study is subject to a number of limitations. Firstly, the size of the participant sample was limited given the study was unfunded, and passive recruitment in studies from groups who have experienced institutional stigma can be difficult [55]. Future, better resourced studies would likely benefit from working with peer researchers in participatory action or other co-design methodologies [55]. Secondly, the source of our sample means that the study should not be taken as a representative sample of all women who use methamphetamine. For instance, the sample was drawn from those already accessing public

health services, so may have missed more marginalised women. Conversely, those accessing privately funded services may also have been missed. We also did not explicitly seek individuals who identified as transgender or gender diverse. This necessarily limits the generalisability of this study.

### **Conclusion**

This study explored the perspectives of a diverse group of women on their methamphetamine use and preferences for healthcare. Findings show a complex interaction between the management of identity, self-stigma and the fear of discrimination and showed personal relationships as being both a challenge and a resource. Healthcare institutions were not seen as safe spaces, with integration and continuity of care delivered by non-judgemental staff valued by the participants, and the need for trauma and violence informed care in all settings was clear. Findings may also have relevance for healthcare interventions for a range of other substance use disorders. Future research on effective anti-stigma interventions for healthcare professionals, family inclusive practice, and structurally competent care will be of value in providing better access to methamphetamine use disorder treatment services for women.

### **Acknowledgements**

The authors would like to acknowledge and pay their respects to the custodians of the land where the project was undertaken, the Gadigal people of the Eora Nation. They also offer their sincere gratitude to the women who participated in the study and shared their stories. Thanks to Leanne McQuiston for her support with transcription.

### **Authors' contributions**

BC undertook interviews, data analysis, drafted the manuscript and completed final edits. KVG undertook study design, undertook interviews, data analysis and contributed to the manuscript. FM undertook interviews, data analysis, contributed to the manuscript, VM undertook data analysis and contributed to the manuscript. KJS undertook data analysis and contributed to the manuscript. DG undertook data analysis and contributed to the manuscript. NE undertook study design, data analysis, and contributed to the manuscript. The author(s) read and approved the final manuscript.

### **Funding**

No funding was received for this study.

### **Availability of data and materials**

The datasets generated are not publicly available due to confidentiality requirements but are available from the corresponding author on reasonable request.

### **Declarations**

#### **Ethics approval and consent to participate**

Ethical approval for the study was provided by St. Vincent's Hospital Human Research Ethics Committee on 18th December 2015 Ref LNR/15/SVH/469. All methods were performed in accordance with the ethics approved protocol and relevant guidelines and regulations.

Informed consent was provided by all participants in the study.

#### **Consent for publication**

Not applicable.

**Competing interests**

The authors declare that they have no competing interests.

Received: 8 August 2022 Accepted: 30 January 2023

Published online: 16 February 2023

**References**

- Farrell M, Martin NK, Stockings E, Bórquez A, Cepeda JA, Degenhardt L, et al. Responding to global stimulant use: challenges and opportunities. *Lancet*. 2019;394(10209):1652–67.
- Man N, Sisson SA, McKetin R, Chrzanowska A, Bruno R, Dietze PM, et al. Trends in methamphetamine use, markets and harms in Australia. *Drug Alcohol Rev*. 2003–2019; n/a(n/a).
- Karila L, Petit A, Cottencin O, Reynaud M. Methamphetamine dependence: consequences and complications. *Presse Med*. 2010;39(12):1246–53.
- Chomchai C, Chomchai S. Global patterns of methamphetamine use. *Curr Opin Psychiatry*. 2015;28(4):269–74.
- Haber PDC, Farrell M, editors. *Addiction medicine: principles and practice*: Research: IP Communications, Pty. Ltd; 2015.
- Degenhardt L, Sara G, McKetin R, Roxburgh A, Dobbins T, Farrell M, et al. Crystalline methamphetamine use and methamphetamine-related harms in Australia. *Drug Alcohol Rev*. 2017;36(2):160–70.
- AshaRani PV, Hombali A, Seow E, Ong WJ, Tan JH, Subramaniam M. Non-pharmacological interventions for methamphetamine use disorder: a systematic review. *Drug Alcohol Depend*. 2020;212:108060.
- Siefried KJ, Acheson LS, Lintzeris N, Ezard N. Pharmacological treatment of methamphetamine/amphetamine dependence: a systematic review. *CNS Drugs*. 2020;34(4):337–65.
- Kenny P, Harney A, Lee NK, Pennay A. Treatment utilization and barriers to treatment: results of a survey of dependent methamphetamine users. *Substance abuse treatment, prevention, and policy*. 2011;6(1):1–7.
- Lee N, Harney A, Pennay A. Examining the temporal relationship between methamphetamine use and mental health comorbidity. *Adv Dual Diagn*. 2012;5(1):23–31.
- Brecht M-L, Lovinger K, Herbeck DM, Urada D. Patterns of treatment utilization and methamphetamine use during first 10 years after methamphetamine initiation. *J Subst Abuse Treat*. 2013;44(5):548–56.
- Quinn B, Stooove M, Papanastasiou C, Dietze P. An exploration of self-perceived non-problematic use as a barrier to professional support for methamphetamine users. *Int J Drug Policy*. 2013;24(6):619–23.
- Kenny P, Harney A, Lee NK, Pennay A. Treatment utilization and barriers to treatment: results of a survey of dependent methamphetamine users. *Subst Abuse Treat Prev Policy*. 2011;6:3.
- Cumming C, Troeung L, Young JT, Kelty E, Preen DB. Barriers to accessing methamphetamine treatment: a systematic review and meta-analysis. *Drug Alcohol Depend*. 2016;168:263–73.
- Rapp RC, Xu J, Carr CA, Lane DT, Wang J, Carlson R. Treatment barriers identified by substance abusers assessed at a centralized intake unit. *J Subst Abuse Treat*. 2006;30(3):227–35.
- Brener L, Lea T, Rance J, Wilson H, Bryant J, Ezard N. Providing a model of health care service to stimulant users in Sydney. *Drugs: Education, Prevention and Policy*. 2018;25(2):130–7.
- McKetin R, Dunlop AJ, Holland RM, Sutherland RA, Baker AL, Salmon AM, et al. Treatment outcomes for methamphetamine users receiving outpatient counselling from the stimulant treatment program in Australia. *Drug Alcohol Rev*. 2013;32(1):80–7.
- Frydenberg E. Coping research: historical background, links with emotion, and new research directions on adaptive processes. *Aust J Psychol*. 2014;66(2):82–92.
- Keane H. Female vulnerability and susceptible brains: gendered discourses of addiction. *Soc History Alcohol Drugs*. 2017;31:126–39.
- Hser Y-I, Evans E, Huang Y-C. Treatment outcomes among women and men methamphetamine abusers in California. *J Subst Abuse Treat*. 2005;28(1):77–85.
- McKetin R, Kelly E. Socio-demographic factors associated with methamphetamine treatment contact among dependent methamphetamine users in Sydney, Australia. *Drug Alcohol Rev*. 2007;26(2):161–8.
- Australian Institute of Health & Welfare. *Alcohol and other drug treatment services in Australia 2018–19: key findings*. Canberra: AIHW; 2020.
- Roche A, McEntee A, Fischer J, Kostadinov V. *Methamphetamine use in Australia*. National Centre for Education & Training on Addiction: Flinders University; 2015.
- Martin FS, Aston S. A “special population” with “unique treatment needs”: dominant representations of “Women’s substance abuse” and their effects. *Contemp Drug Problems*. 2014;41(3):335–60.
- Gossop M, Darke S, Griffiths P, Hando J, Powis B, Hall W, et al. The severity of dependence scale (SDS): psychometric properties of the SDS in English and Australian samples of heroin, cocaine and amphetamine users. *Addiction*. 1995;90(5):607–14.
- Broom A, Hand K, Tovey P. The role of gender, environment and individual biography in shaping qualitative interview data. *Int J Soc Res Methodol*. 2009;12(1):51–65.
- Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77–101.
- Brady TM, Ashley OS. *Women in Substance Abuse Treatment: Results from the Alcohol and Drug Services Study (ADSS)*. Rockville: Substance Abuse and Mental Health Services Administration; 2005.
- Green CA. Gender and use of substance abuse treatment services. *Alcohol Res Health*. 2006;29(1):55–62.
- Bielenberg J, Swisher G, Lembke A, Haug NA. A systematic review of stigma interventions for providers who treat patients with substance use disorders. *J Subst Abuse Treat*. 2021;131:108486.
- Pienaar K, Dilkes-Frayne E. Telling different stories, making new realities: the ontological politics of ‘addiction’ biographies. *Int J Drug Policy*. 2017;44:145–54.
- VanBuskirk KA, Wetherell JL. Motivational interviewing with primary care populations: a systematic review and meta-analysis. *J Behav Med*. 2014;37(4):768–80.
- Simpson JL, Grant KM, Daly PM, Kelley SG, Carlo G, Bevins RA. Psychological burden and gender differences in methamphetamine-dependent individuals in treatment. *J Psychoactive Drugs*. 2016;48(4):261–9.
- López-Castro T, Hu M-C, Papini S, Ruglass LM, Hien DA. Pathways to change: use trajectories following trauma-informed treatment of women with co-occurring post-traumatic stress disorder and substance use disorders. *Drug Alcohol Rev*. 2015;34(3):242–51.
- Wathen CN, MacGregor JCD, Beyrem S. Impacts of trauma- and violence-informed care education: a mixed method follow-up evaluation with health & social service professionals. *Public Health Nurs*. 2021;38(4):645–54.
- Wall-Wieler E, Roos LL, Brownell M, Nickel NC, Chateau D. Predictors of having a first child taken into care at birth: a population-based retrospective cohort study. *Child Abuse Negl*. 2018;76:1–9.
- Ward B, Kippen R, Reupert A, Maybery D, Agius PA, Quinn B, et al. Parent and child co-resident status among an Australian community-based sample of methamphetamine smokers. *Drug Alcohol Rev*. 2021;40(7):1275–80.
- O’Connor A, Harris E, Seeber C, Hamilton D, Fisher C, Sachmann M. Methamphetamine use in pregnancy, child protection, and removal of infants: tertiary Centre experience from Western Australia. *Midwifery*. 2020;83:102641.
- O’Connor A, Harris E, Hamilton D, Fisher C, Sachmann M. The experiences of pregnant women attending a specialist service and using methamphetamine. *Women and birth* : J Aust College Midwives. 2021;34(2):170–9.
- Aris T, Fairbairn CE. The effect of significant other involvement in treatment for substance use disorders: a Meta-analysis. *J Consult Clin Psychol*. 2020;88(6):526–40.
- Best D, Vanderplassen W, Nisic M. Measuring capital in active addiction and recovery: the development of the strengths and barriers recovery scale (SABRS). *Substance abuse treatment, prevention and policy*. 2020;15(1):40.
- Collinson B, Hall L. The role of social mechanisms of change in women’s addiction recovery trajectories. *Drugs: Educ Prevent Policy*. 2021;28(5):426–36.
- Pauly B, McCall J, Browne AJ, Parker J, Mollison A. Toward cultural safety: nurse and patient perceptions of illicit substance use in a hospitalized setting. *Adv Nurs Sci*. 2015;38(2):121–35.



44. McNeil R, Small W, Wood E, Kerr T. Hospitals as a 'risk environment': an ethno-epidemiological study of voluntary and involuntary discharge from hospital against medical advice among people who inject drugs. *Soc Sci Med*. 2014;105:59–66.
45. Olding M, Cook A, Austin T, Boyd J. "They went down that road, and they get it": a qualitative study of peer support worker roles within perinatal substance use programs. *J Subst Abus Treat*. 2022;132:108578.
46. Savic M, Best D, Manning V, Lubman DI. Strategies to facilitate integrated care for people with alcohol and other drug problems: a systematic review. *Substance Abuse Treatment Prevent Policy*. 2017;12(1):19.
47. Petzold J, Spreer M, Krüger M, Sauer C, Kirchner T, Hahn S, et al. Integrated care for pregnant women and parents with methamphetamine-related mental disorders. *Front Psychiat*. 2021;12:762041.
48. Bourgois P, Holmes SM, Sue K, Quesada J. Structural vulnerability: operationalizing the concept to address health disparities in clinical care. *Acad Med*. 2017;92(3):299–307.
49. McKenna SA. Navigating the risk environment: structural vulnerability, sex, and reciprocity among women who use meth. *Int J Drug Policy*. 2014;25(1):112–5.
50. Metz J, Hansen H. Structural competency: theorizing a new medical engagement with stigma and inequality. *Soc Sci Med*. 2014;103:126–33.
51. Treloar C, Schroeder S, Lafferty L, Marshall A, Drysdale K, Higgs P, et al. Structural competency in the post-prison period for people who inject drugs: a qualitative case study. *Int J Drug Policy*. 2021;95:103261.
52. McNeil R, Kerr T, Pauly B, Wood E, Small W. Advancing patient-centered care for structurally vulnerable drug-using populations: a qualitative study of the perspectives of people who use drugs regarding the potential integration of harm reduction interventions into hospitals. *Addict*. 2016;111(4):685–94.
53. Mackenzie M, Gannon M, Stanley N, Cosgrove K, Feder G. "You certainly don't go back to the doctor once you've been told, "I'll never understand women like you." Seeking candidacy and structural competency in the dynamics of domestic abuse disclosure. *Social Health Ill*. 2019;41(6):1159–74.
54. Preis H, Garry DJ, Herrera K, Garretto DJ, Lobel M. Contextualizing life context: discrimination, structural competency, and evaluation in the treatment of pregnant women with opioid use disorder. *Women's reproductive health*. 2020;7(3):185–9.
55. Bonevski B, Randell M, Paul C, et al. Reaching the hard-to-reach: a systematic review of strategies for improving health and medical research with socially disadvantaged groups. *BMC Med Res Methodol*. 2014;14:42.

## Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Ready to submit your research? Choose BMC and benefit from:

- fast, convenient online submission
- thorough peer review by experienced researchers in your field
- rapid publication on acceptance
- support for research data, including large and complex data types
- gold Open Access which fosters wider collaboration and increased citations
- maximum visibility for your research: over 100M website views per year

At BMC, research is always in progress.

Learn more [biomedcentral.com/submissions](https://biomedcentral.com/submissions)

