

Cannabis and methamphetamine in New Zealand: a Kaupapa Māori literature review

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ABSTRACT

AIM: This literature review aims to identify and review through a Kaupapa Māori lens the current knowledge base related to cannabis and methamphetamine, and Māori.

METHODS: A Kaupapa Māori research approach was utilised to identify, review and critique literature about cannabis and methamphetamine in New Zealand. Literature contents were categorised via publication type, population focus, substance focus, research approach, methods used and whether lived experience voices were centralised. Substance engagement was categorised within prevention, use or treatment contexts.

RESULTS: Thirty literature sources were included in this review. The majority were journal articles, utilised quantitative survey data collection methods, focussed on large population groups and investigated individual characteristics of users of cannabis and/or methamphetamine. Most articles took a general population approach, briefly mentioning Māori, or measured differences in drug use between Māori and others. More recent research led by Māori, or with a critical lens, highlighted the value of focussing on drug use, rather than drug users.

CONCLUSIONS: Understandings of cannabis and methamphetamine use in New Zealand are reliant on research insights and academic literature. Literature focussed mainly on individuals fuels negative stereotypes of Māori and lacks critical Kaupapa Māori insights. To address cannabis and methamphetamine harms experienced by Māori, future research should make an explicit commitment to be of benefit to Māori and implement Kaupapa Māori-consistent research approaches.

Prior to European arrival in New Zealand, traditional Māori health systems (Rongoā Māori), derived from mātauranga Māori (Māori knowledge systems), maintained community wellbeing in an admirable state of flourishing.¹ Māori health has been heavily impacted by colonisation, the broader determinants of health and systemic factors that prevent access to equitable health and wellbeing.² Medicinal, recreational and dependent forms of substance use (e.g., alcohol, cannabis and methamphetamine) in New Zealand are now present, having been introduced through the process of colonisation by European and other migrants.³ Māori experience significant harms related to addictive substance availability. The failure of the Crown and its agents to protect Māori from such harmful substances constitutes a breach of Te Tiriti o Waitangi, which guarantees Māori the right to health equity.⁴

Addiction to or dependence on substances like cannabis and methamphetamine are priority health issues in New Zealand.⁴ The way that literature frames cannabis and methamphetamine use in New Zealand, and for Māori, is a key driver

of social and systemic perception; and ultimately, solution creation. Historically, research about addiction has adopted a victim-blame analysis, often framing individual choice as the cause of substance use problems. In recent years, those working in mental health and addiction services have called for a re-framing of drug use as a “health”, not “criminal”, problem.⁵ There is also substantial evidence that “punishment approaches” such as incarceration and criminal conviction do little to reduce drug dependence.³

Māori experience higher rates of harm from substance use, and harm from the way that justice and social systems deal with addiction (i.e., as a criminal problem).⁶ While Māori are affected at higher rates from cannabis and methamphetamine, expert commentary, solution development and theoretical discourse to date are likely to have been led by others, lacking insight into Māori worldviews and realities. As well as this, research about Māori by non-Māori has historically been driven by Western research paradigms. Conversely, Kaupapa Māori epistemology and research principles aim to be of benefit to Māori, operating in ways that

are consistent with Māori worldviews. It is timely to canvas available literature to identify to what extent Māori research principles are evident, if Māori voices are present, the drivers and focus of current literature and theories about why Māori are affected at disproportionate rates. This literature review aims to identify, summarise and critique through a Kaupapa Māori lens the current knowledge base related to Māori, and cannabis and methamphetamine.

Methodology

A Kaupapa Māori literature review of cannabis and methamphetamine use in New Zealand, with a focus on Māori, was completed. Kaupapa Māori is a well-established research paradigm that draws on Te Ao Māori (Māori worldview) pedagogies, foregrounds Māori collective aspirations and rangatiratanga (self-determination) and aims to benefit Māori.⁷ In this context, Kaupapa Māori means that the research is centred on Māori wellbeing, is led by Māori, supports Māori workforce development, critiques literature through a critical Kaupapa Māori lens and uses explicit “non-victim blame” and “non-cultural deficit” analyses. Such an approach explicitly rejects discourse that “blames Māori” for substance use and related harms and looks at structural power imbalances and the influence of historical trauma and colonisation within context. The broader social, political, economic, cultural, historical and commercial determinants of Māori health are also considered.⁸

Methods

Literature was identified via database searches in December 2022 within the Medline, PubMed, Otago University, Google Scholar and Google search engines and included journal articles, government and non-government reports, media publications and publicly available datasets/data summaries. Initial searches specific to Māori and cannabis or methamphetamine produced limited results. The search was widened to include New Zealand and international literature that focussed on addiction, substance use and other Indigenous peoples. This produced an exponential amount of literature, much of which was focussed on other Indigenous peoples. Key search concepts included: “Indigenous concept” (Indigenous, Māori, tangata whenua, mana whenua, African American, Native American, Hawaiian, First

Nations, Aboriginal); “cannabis concept” (cannabis, weed, dope, pot, marijuana); “methamphetamine concept” (methamphetamine, meth, P, crystal); and “experience concept” (experience, reason, story, perspective, mental health, trauma and medication).

A total of 216 articles were initially identified using various combinations of these keywords and were reviewed for relevance to the research topic by article title and citation, availability of full text and in the English language. Articles were then allocated into “yes = definitely include” (n=49), “no = exclude” (n=51) and “maybe = possibly include” (n=116) groups. Most of the “maybe” list was related to international Indigenous populations, did not include Māori as a focus or were focussed on the psychiatric links of drug use and alcohol use, and were outside the scope of this review. The “yes” and “maybe” list abstracts were reviewed by two Māori researchers and further refined down to a final 30 “yes” articles. Inclusion criteria in the final group were: the research was based in New Zealand, focussed mainly on cannabis or methamphetamine; included reference to Māori; and was relevant to the research topic. A Kaupapa Māori analysis approach was utilised that prioritised Māori worldviews and Kaupapa Māori-consistent research approaches and applied a critical discourse analysis of the way Māori, cannabis and methamphetamine were framed within literature. All articles were reviewed, and content was categorised via the following variables: type of publication (e.g., article, report), year published, substance of focus (e.g., cannabis), evidence of Māori research leadership (yes/no), focus of research (e.g., health, justice), stage of engagement (e.g., initiation, prevention), evidence of Kaupapa Māori-consistent research methods (e.g., structural analysis) and whether whānau (family) or lived experience voices were present (Table 1).

Results

A total of 30 articles were included. Table 2 presents a summary of literature sources (herein referred to as articles) parameters. Most were journal articles (n=20, 67%).^{9–28} Also included were four reports,^{29–32} four theses^{3,33–35} and two magazine articles.^{36,37} Nearly two thirds (60%) were published within the last 5 years (2018–2022).^{3,9–13,15,22–24,27,30–35,37} While all articles included some content about Māori, clearly identifiable Māori research leadership (e.g., Māori primary

Table 1: Description of categorisation terms.

Categorisation term	Description
Main article focus	Sector/framing of issue to be addressed
Individual risk factors/monitor	Linking individual risk factors of drug users/monitoring trends
Health	Drug use as a health issue/health impacts/treatment services
Justice/policy/crime	Crime/convictions/gangs/policies/legislation and justice
Economy/market	Sale, supply and demand
Inequities/Māori	Addressing inequities and/or Māori aspirations
Stage of engagement	Different periods of drug use highlighted in each article
Initiation	Drug use had begun or when it was encouraged
Addiction	Drug use was current and/or addiction was a focus
Treatment	Treatment or quitting was a focus
Kaupapa Māori approach	Utilises an explicit Kaupapa Māori perspective/research approach
Māori research leadership	E.g., Māori primary author, Māori health research centre
Method	What is the method used to collect data in the reports?
Quantitative	Based on numerical data (surveys, census, etc.)
Qualitative	Data collected based on people's experiences (e.g., interviews)
Descriptive	Neither qualitative or quantitative methods were used
Whānau lived experience	Qualitative data from first-hand experience as whānau of drug users
Personal lived experience	Qualitative data from first-hand experience as drug users

author, located within Māori research centre) was evident in 11/30 of the articles.^{18,19,22,23,36}

Nearly half (n=14) of the articles focussed only on cannabis; the main focus from these articles were around the cannabis referendum and Māori views of decriminalisation and/or legalisation.^{9,10,13,15–17,19,20,22,23,25,32,36,37} Three articles focussed only on methamphetamine,^{11,12,24} 11 included both cannabis and methamphetamine and seven included other substances as a focus (e.g., alcohol and tobacco—briefly mentioning cannabis and/or methamphetamine) (Table 2).

Table 3 shows that the main focus of articles was individual “user” characteristics or “risk factors” (n=10); or health (n=11). Seven articles focussed mainly on justice, crime and policy, and 11 were focussed on inequities and/or Māori. Along the

contextual pipeline, “current use” (n=21, 70%) was the most common “timeframe” of focus, followed by treatment/recovery or initiation/prevention. Seven articles took an explicit Kaupapa Māori-consistent methodological approach. This was indicated by one of more of the following: framing of Māori health issues within a colonial context, explicit mention of Kaupapa Māori methods, evidence of critical anti-colonial analysis and investigation of ethnic inequities and structural determinants.

More than half (n=16) of the articles used quantitative methods (e.g., self-report surveys). Notably, five articles were derived from the same Christchurch Health and Development Study data.^{13,14,16,17,20} Nine articles were descriptive, drawing from other sources to collate information, and eight used qualitative methods. Whānau partici-

Table 2: Description of New Zealand literature about cannabis, methamphetamine and Māori.

Description of available literature	Number of articles (/30)
Type of publication	
Journal article	20
Thesis	4
Report	4
Magazine article	2
Year published	
Last 5 years (2022–2018)	18
Last 10 years (2017–2014)	3
More than 10 years (2013–1998)	9
Māori research leadership	
Yes	11
No	19

pants were present in six of the articles and eight included data drawn from those with personal lived experience of substance use.

Table 4 provides a summary of the content associated with each article based on the categories and contexts. The discussion and main findings of the articles were reviewed in relation to content specifically related to Māori. We note that most articles were focussed on the New Zealand population overall and many utilised national survey data; however, these included some data about Māori, and hence made some comments that interpreted research findings in relation to Māori.

The main findings of the reviewed literature were related to Māori and cannabis and methamphetamine in New Zealand, as follows. Māori were more likely to use cannabis than other ethnic groups and are more at risk of being incarcerated because of it.^{14,17,27} Methamphetamine was also more readily available in rural areas compared to cannabis and this was linked to buying from gang members or other Māori.²⁷ Environmental factors were another component to consider as influential to Māori drug use initiation. Some articles spoke to school life, and experiences with friendships and life at home;^{9,11,14,20} primarily, a decreasing interest in

school, which was linked to negative experiences with learning, increasing risk of “delinquent” behaviour and associated engagement in drug use.^{11,12} Dance (2018) highlighted that people are more likely to begin drug use during problematic periods of time.³³ Recent literature also highlighted the ongoing declining rates of substance use by youth/rangatahi, and the importance on focussing on prevention at this critical development stage.^{9,23} In perspective, articles also redirected attention to alcohol and tobacco as much more prevalent and harmful than methamphetamine and cannabis, as well as the increasing concerns around vaping.⁹

“It is important to note that the majority of Māori, rainbow, and low socio-economic status adolescents in Aotearoa do not smoke, binge drink or take other drugs. Nor is substance use exclusive to these groups.”⁹

Methamphetamine initiation was associated with its ready availability in rural communities and significantly lower costs than cannabis.²⁷ However, Dance suggested that people were more likely to begin using methamphetamine after experiencing issues with poly-drug use.³³

Table 3: Summary of article content.

Content in literature	Number of articles (/30)
Substance of focus	
Cannabis only	14
Methamphetamine only	3
Both cannabis and methamphetamine	11
Other (e.g., general substance use)	7
Main focus*	
Individual user risk factors/monitor	10
Health	11
Justice/crime/policy	7
Economy/market	2
Equity/Māori	11
Stage of engagement	
Initiation/prevention	4
Current use/addiction	21
Treatment/recovery	5
Kaupapa Māori research approach	
Yes	7
No	23
Method[^]	
Quantitative	16
Qualitative	8
Descriptive	9
Whānau lived experience	
Yes	6
No	24
Personal lived experience	
Yes	8
No	22

*Equity/Māori focus is not mutually exclusive from other main focus categories.

[^]Categories are not mutually exclusive.

Table 4: Summary of all articles included in literature review.

Author/year	Literature parameters				Substance			Research approach/methods						Main focus					
	Journal article	Report	Thesis	Magazine article	Cannabis	Methamphetamine	Other substances	Quantitative	Qualitative	Descriptive	Māori research leadership	Kaupapa Māori approach	Whānau voice	Lived experience	Link individual factors/monitor	Health	Justice, crime and policy	Economy	Māori/equity
Lewer, 2022			•		•	•	•			•							•		
Rapana, 2022	•				•			•			•	•					•		•
Dempster, 2022	•				•			•				•					•		•
Ball, 2022	•				•		•	•			•				•				
Bax, 2022	•					•		•					•	•	•				
Walton, 2021		•				•				•	•		•	•		•			
Theodore, 2021	•				•					•	•	•				•			•
Bax, 2021	•					•		•	•				•	•	•				
Swinton, 2020			•		•	•		•					•			•			
Wilson, 2020		•			•					•								•	
Boden, 2020	•				•			•							•				
Gordon, 2019			•			•		•						•		•			
Walker, 2019		•			•	•	•			•	•	•				•			•
Wang, 2019	•					•		•								•			
Ball, 2019	•				•			•			•				•				•
Dance, 2018			•			•		•					•	•		•			
Wilkins, 2018	•				•	•		•									•		
McClure, 2018				•	•					•				•				•	•
McLachlan, 2015	•						•			•	•	•				•			•
Robertson, 2014		•			•	•	•	•	•					•			•		
Kaa, 2014				•	•					•	•	•					•		•

Table 4 (continued): Summary of all articles included in literature review.

Author/year	Literature parameters				Substance			Research approach/methods						Main focus					
	Journal article	Report	Thesis	Magazine article	Cannabis	Methamphetamine	Other substances	Quantitative	Qualitative	Descriptive	Māori research leadership	Kaupapa Māori approach	Whānau voice	Lived experience	Link individual factors/monitor	Health	Justice, crime and policy	Economy	Māori/equity
Wilkins, 2010	•				•	•		•									•		
Wells, 2009	•				•			•			•					•			
Marie, 2008	•				•			•							•				•
Boden, 2006	•				•			•							•				
Wilkins, 2005	•				•	•		•							•				
Fergusson, 2003	•				•			•							•				
Huriwai, 2002	•						•			•	•	•				•			•
Fergusson, 2000	•				•			•							•				
Huriwai, 1998	•				•		•	•	•		•		•	•		•			•

Among the 14 articles focussed mainly on cannabis in New Zealand, most were relatively recent and primarily centred around the 2020 cannabis referendum, indicating a political motivation.^{13,15,23} These articles included Māori beliefs and perceptions about cannabis and its regulation,¹³ likely designed to gauge the New Zealand public's stance on cannabis regulation and inform areas requiring investment in regulation and management.

On the other hand, articles focussed on methamphetamine took a different approach and primarily addressed the justice system, and whānau wellbeing.^{11,12,24,27,28,31,33,34} While cannabis has been widely used in New Zealand for decades, methamphetamine continues to have lower rates of use, holds more severe judicial penalties and is related to higher rates of harm, particularly in the Māori population.⁵ Those articles focussed on methamphetamine therefore focussed on the impacts and legal issues.

Interestingly, a large proportion of articles in this review drew data from national surveys or longitudinal studies and fulfilled a measurement and monitoring function.^{13,14,16,17,20} That is, much of the research sought to assess the scale of cannabis and/or methamphetamine use, and to outline other characteristics of those members of the public most impacted through direct or indirect engagement.

Discussion

This article presents a Kaupapa Māori literature review specific to Māori and cannabis and methamphetamine. A total of 30 New Zealand-based articles were included, representing a mixture of topics specific to cannabis, methamphetamine, both cannabis and methamphetamine and substance use in general. Many articles made mention of their research in relation to Māori; however, only 11 articles showed clear Māori research leadership,

and less than half of the articles were specifically focussed on Māori/equity and their realities in relation to cannabis and methamphetamine use. Given the inequitably higher rates of harm Māori experience related to cannabis and methamphetamine, and the impacts of these inequities on whānau wellbeing, this Kaupapa Māori study aimed to identify, summarise and critique through a Kaupapa Māori lens the current knowledge base related to Māori experiences of cannabis and methamphetamine use.

In addition to summarising the literature content and parameters, our review sought to comment on the extent to which Māori rangatiratanga (power and control) over the research was present, whether research approaches and framing were consistent with Kaupapa Māori principles, and thereby, the position of Māori in terms of driving best-practice solutions.

Interestingly, much of the research had been responsive to political movements such as the 2020 cannabis referendum.^{15,23,32} Another major focus of the literature has been the monitoring and reporting of individual cannabis and methamphetamine use through national surveys and longitudinal studies.^{14,16,25} Qualitative methods were used in several articles to draw on lived experiences of individuals and their whānau in relation to substance use.^{11,33,35}

Longitudinal retrospective analysis that identifies individuals who report methamphetamine or cannabis use and then seeks to link this with other individual factors has concluded that the “who” of cannabis and methamphetamine use are more likely to be Māori, male, hold criminal convictions, have low socio-economic status and have experienced significant trauma.^{9,14,16,17,19} While individual-level analysis can potentially identify those at higher risk of drug harm, this method rarely considers structural power imbalances and the influence of historical trauma and colonisation.

Bax (2022; 2021) conducted in-depth interviews with ex-meth users and their whānau and identified several life-course events, trauma experiences and exposures that participants said were related to drug use.^{11,12} Of note were trajectories through high school that started positively and ended negatively, experiences of victimisation in all areas and social sector environments. This approach considers the broader determinants of health; however, the discourse within many of these articles lacks critical Kaupapa Māori insights and tends to perpetuate victim-blame

mentality.²⁰ For example, Bax (2022; 2021) utilises the term “delinquency” to describe students whose educational environment has not been conducive to their success. Moreover, there remains a focus on monitoring of trends, rather than solution development and action.

Swinton (2020) also explains that the repeat linking of individual characteristics to drug use operates to enforce stigmatisation of the “drug user” rather than the “drug use”.³⁵ This is reflected in the bulk of articles in this review being focussed on “drug user” investigation, criminal convictions, availability of and access to illicit drugs in communities, economic gain from drug dealing and involvement in gangs.

Several articles in this review focussed mainly on Māori wellbeing, equity, solution development and political and economic benefit. For example, Rapana et al. (2022) utilised cannabis conviction data to demonstrate that “discretionary” policies fail to eliminate inequitable criminalisation of Māori.²² Similarly, Theodore et al. provided much needed commentary to the cannabis referendum, foregrounding the harms of cannabis for rangatahi Māori (Māori youth) within a colonial context. McLachlan et al. (2015) and Huriwai (2002) call for culturally congruent alcohol and other drug treatment services that adopt whānau-centred approaches, acknowledging the complex layers of determinants of drug use, and the realities of the whānau context.²¹

Interestingly, literature specific to cannabis presented somewhat of a double standard. In essence, the framing of Māori and cannabis use in relation to criminal convictions, illegal activity and gang activity functions to position Māori as “delinquent”.^{14,26–28} On the other hand, the recent focus on the cannabis referendum, and the about-turn of Western medicine from one of condemnation of cannabis use, to one of support for “medicinal purposes”, have required the gathering of policy support—including that of Māori. While Māori have been noted as supporting decriminalisation, Te Kaa (2014) clarifies that rather than legalisation of cannabis, Māori simply want access to a fair judicial system that ceases to inequitably criminalise us.³⁶ Literature discussing cannabis use/sale for therapeutic or economic benefit then excludes Māori from the potential benefits of this market despite long-term leadership in this area.^{36,37} Notably, the current medicinal cannabis regulations explicitly prevent “those with drug-related or dishonesty convictions” from participating in the medicinal cannabis market.³⁹

Finally, notwithstanding Theodore et al.'s comprehensive discussion on the harms associated with cannabis, and the lived experience insights shared by Dance, Gordon (2019) and Swinton,^{33,34,35} there is a pressing need to comprehend the lived experience of Māori whānau concerning both cannabis and methamphetamine use, distinct from those directly resulting from the ways in which justice and social systems address drug-related issues.^{6,33,35}

Moreover, in a broader colonial context, it is essential to consider that cannabis and methamphetamine may potentially be perceived as providing therapeutic benefits to those most deprived. For example, one internationally recognised advantage of cannabis use is its potential in pain management.³⁷ Despite acknowledging that Māori individuals are disproportionately exposed to higher rates of both macro- and micro-trauma, there has been insufficient acknowledgment of the possibility that “illegal” drug use may serve as a mechanism for addressing unmet emotional pain.³⁸ Additionally, there has been a dearth of discussion regarding the inherent functioning of public systems that perpetuate the disconnection of Māori individuals from their whānau (extended family) and hinder their access to broader society, consequently leading to enduring emotional and psychological distress. It appears the existing literature, and subsequent social or media rhetoric, often portray Māori drug use as a deliberate delinquent action, while neglecting to consider the possibility that Māori individuals may turn to drug use as a coping strategy or a means of pain management.

In more recent literature, attention has turned towards illuminating various factors that play a

pivotal role in substance use among Māori. These factors include systemic racism, identified as a determinant of drug use,^{22,33,35} the shortcomings of Western mental health systems in catering to Māori needs,⁴ the historical introduction of methamphetamine-related pharmaceutical medications, such as diet pills, to New Zealand patients³ and the suppression of traditional Māori “medicines” that potentially hold the key to addressing numerous health issues.¹ This critical approach is indispensable for a re-evaluation of Māori realities and an exploration of the systemic origins of substance use.

Conclusions

This Kaupapa Māori study reviewed literature pertaining to the experiences of Māori in the context of cannabis and methamphetamine use. Mainstream research often overlooks Māori perspectives or the potential implications of their findings for Māori communities. Several studies seek to establish links between cannabis and methamphetamine use and individual “risk factors” factors. Recent research has started to place greater emphasis on capturing the lived experiences of Māori, adopting a critical lens to analyse findings and exploring the role of systemic institutions within the context of drug-related harm. To effectively address the harms associated with cannabis and methamphetamine use among Māori, future research must explicitly commit to benefitting Māori and employ research approaches consistent with Kaupapa Māori principles. An essential focus should be on prevention, addressing root causes, taking decisive action and not just measurement alone.

COMPETING INTERESTS

Nil.

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